

THE LITTLE BOOK OF GREEN NUDGES



**40 NUDGES
TO SPARK
SUSTAINABLE
BEHAVIOUR ON
CAMPUS**

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THE LITTLE BOOK OF **GREEN NUDGES**

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FOREWORD

Students around the world want the places in which they study to reflect their values. Increasingly, that means taking a firmer stand on environmental issues and the climate crisis.

We have seen this in a recent National Union of Students survey that found 86 per cent of first-year students in the UK want their higher education institutions to actively incorporate and promote sustainable development.¹ This was further reinforced in a Princeton Review survey that found two-thirds of student

applicants (or their parents) would like to take a college or university's commitment to the environment into consideration when choosing where to study.² Calls for divestment from fossil fuels are showing how students are pushing their universities to make major changes to address the climate crisis. And this drumbeat calling for action is only getting louder.

Change is clearly needed, but change doesn't have to mean radical upheaval per se.

Behavioural science shows that a simple “nudge” towards everyday greener decisions is a powerful spur to environmental action for students and other campus community members. Techniques such as gentle persuasion, changing the framing of choices, resetting default options or harnessing social influence can all lead towards sustainable conduct and an eco-friendly campus.

Now is the perfect time for trying green nudges, as higher education institutions are redesigning systems and routines in the wake of the emergence of COVID-19. This is a timely moment when students and staff can be encouraged to consider new behaviours and higher education leaders can consider how to build back better.

Nudges can not only be effective, but also are often cost-effective and time-efficient. They focus on new behaviour, not new equipment, and can succeed by shifting existing systems and processes rather than creating new ones. Nudges that save energy and resources help save the planet, but they also save money for universities and students.

The UN Environment Programme (UNEP) is now embracing nudging as a strategy to help meet the Sustainable Development Goals (SDGs) and protect the global environment, with support from the Behavioural Insights Team. We can see that when we nudge people away



from overconsumption and waste, and towards energy efficiency and lower-impact lifestyles, we are playing a part in fighting climate change as well as preserving the natural world in which we live and on which we rely.

Nudges are not the only tool we have – and shouldn't be used at the expense of strong policy and regulation – but they are an important part of the solution.

A key tenet of a successful nudge is the timing of the intervention. When better to intervene than during students' formative years on campus? Higher education institutions are the incubators of our future entrepreneurs, decision-makers and trend-setters, and of their increasing consumer power. Nudges on campus are particularly powerful because it is here that students – often away from home for the first time and able to find themselves – are forming new routines and new identities. We hope that sustainable habits and environmentally conscious behaviours that are developed during this period can last a lifetime.

This little book shares inspiring, evidence-based examples of nudges, many of which have been proven to work on university and college campuses. But more importantly, it provides the practical information needed to create and test new nudges, tailored to different and specific campus communities.

Whether student or staff, in Africa, Asia, the Americas or anywhere else, if you want to create positive change on campus, this book is for you. We hope it will inspire, challenge and influence, and its ideas and the experiences it triggers will be shared far and wide.

The potential to make our universities and our societies greener is enormous, and we don't have time to waste. A small nudge can go a long way.



Inger Andersen
Executive Director
UNEP



David Halpern
Chief Executive
Behavioural Insights Team

JOIN UNEP IN MAKING AN IMPACT ON CAMPUSES THROUGH NUDGING

The higher education community has unique opportunities to influence the citizens of tomorrow and to test nudges in real-world laboratories.

“The Little Book of Green Nudges” offers a practical framework and 40 nudges that can be adopted by colleges and universities, from the small-scale to the large, depending on your resources and context. By embracing this approach, leaders and activists on campus can facilitate more sustainable decisions and help reduce the approximately 75 per cent of personal emissions that come from what we eat, how we travel and the homes we live in.³ This book does not contain all the answers on how best to change behaviour in every circumstance. Nudging projects will play

out differently in different parts of the world, on different types of campuses, and among different genders and cultural groups. But everyone can learn from insights gained along the way.

This book contains a wealth of ideas and tips, but it's only a starting point. UNEP needs you to take this initiative to the next level. Many colleges, universities and other higher education institutions across the globe have already jumped on board to contribute ideas, test nudges, share experiences and learn from others. Together we can make nudging more successful and have a real impact.

We hope you and your institution will join us! Please visit unep.org/nudges.

WHAT ARE GREEN NUDGES?

There are many different approaches to behaviour change, from enforcing regulation to providing information. In this little book, we focus on nudges: positive and gentle persuasion to encourage sustainable behaviour on higher education campuses. For example, putting more sustainable food in a prominent position in the student canteen would be a nudge, still leaving students free to eat what they want. So would automatically enrolling students into a bike-sharing scheme, regardless of whether they choose to use it. In both cases, these simple changes would make the sustainable choice a little easier, more salient and seemingly more normal.

Nudging is based on an understanding of the psychology of decision-making. Our brains have limited resources to make sense of a world that is complex and uncertain, which means that we use mental shortcuts that make our behaviour highly context-dependent: for example, “do what everyone else is doing” or “take the easiest option”. Also, a lot of our behaviour is automatic, as we follow ingrained routines or act on auto-pilot. With knowledge of these cognitive processes, we can make changes to the options people have (the “choice environment”) in order to encourage certain choices, or we can explicitly design choices to harness or overcome common cognitive biases.

**POSITIVE
AND GENTLE
PERSUASION
TO ENCOURAGE
SUSTAINABLE
BEHAVIOUR**



WHY USE NUDGES?

Nudges help people live their values

Many people intend to eat healthily, save money or live more sustainably, but don't follow through with their intentions. This is partly because we prioritize our short-term desires (chocolate cake or a new pair of shoes) over long-term aspirations. It's also partly because our behaviour is unconsciously affected by the physical and social context in which the easy or default choices are often not the most healthy, economical or sustainable. Nudges can make people's lives easier, happier and more rewarding because they help people align their daily decisions with the values they already have.

Nudges can work better than raising awareness

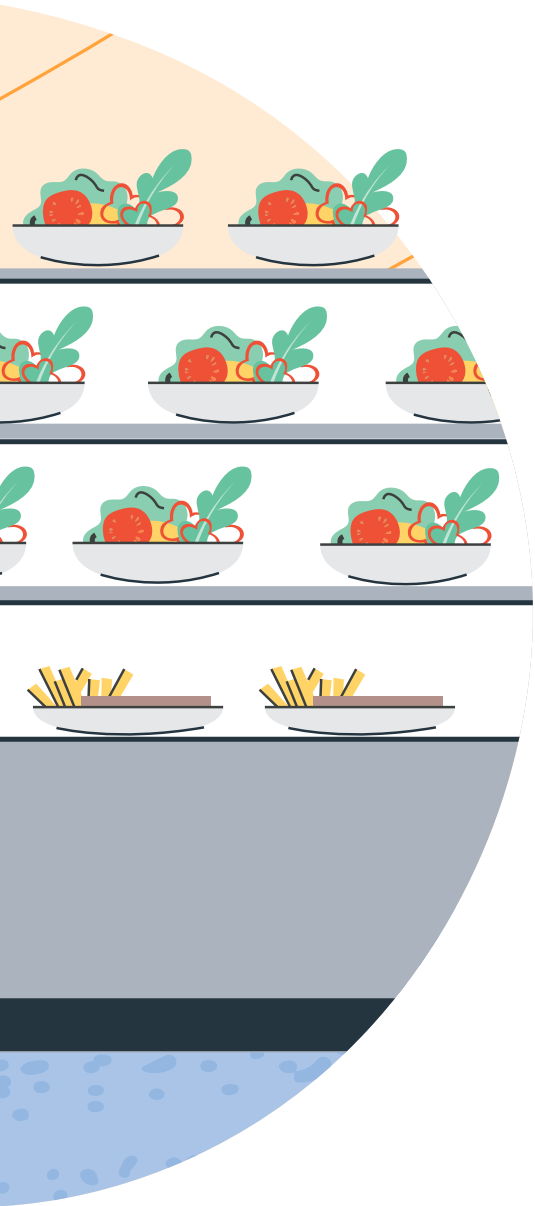
Because there is a gap between what we intend to do and what we actually do, it is generally more effective to focus, as nudging does, on changing behaviour directly, rather than simply raising awareness. Awareness and intentions still matter, as they make behaviour change easier, but they are rarely enough alone: although many people say they want to consume more sustainably, they don't do so in practice.⁴ This means that while a poster campaign on campus about the environmental impacts of driving might help people learn about the issue, a nudge offering more bike parking spaces and fewer car parking spaces has a higher likelihood of reducing car usage.

Nudges are cost-effective

Nudges are often cheap to implement, as they frequently involve changing the way choices are presented instead of rebuilding infrastructure or buying new equipment. Nudges that help to conserve resources can in fact save universities money. For example, a small university department in the UK could save more than £1,000 per year by turning off its lights every night,⁵ and a nudge to help achieve that goal could be very low-cost, such as printing reminder notices to put up at light switches.

Nudges are needed now

With public concern about climate change and the environment at an all-time high, there is clearly no absence of motivation for sustainability. But it can be hard to move people from motivation to concrete action, especially when sustainable choices are more complicated or inconvenient, or require us to go against defaults and established norms. This is where you can help – your nudges can remove barriers and facilitate everyday sustainable behaviours.



WHO CAN USE GREEN NUDGES?

If you work or study on a higher education campus, this book is for you!

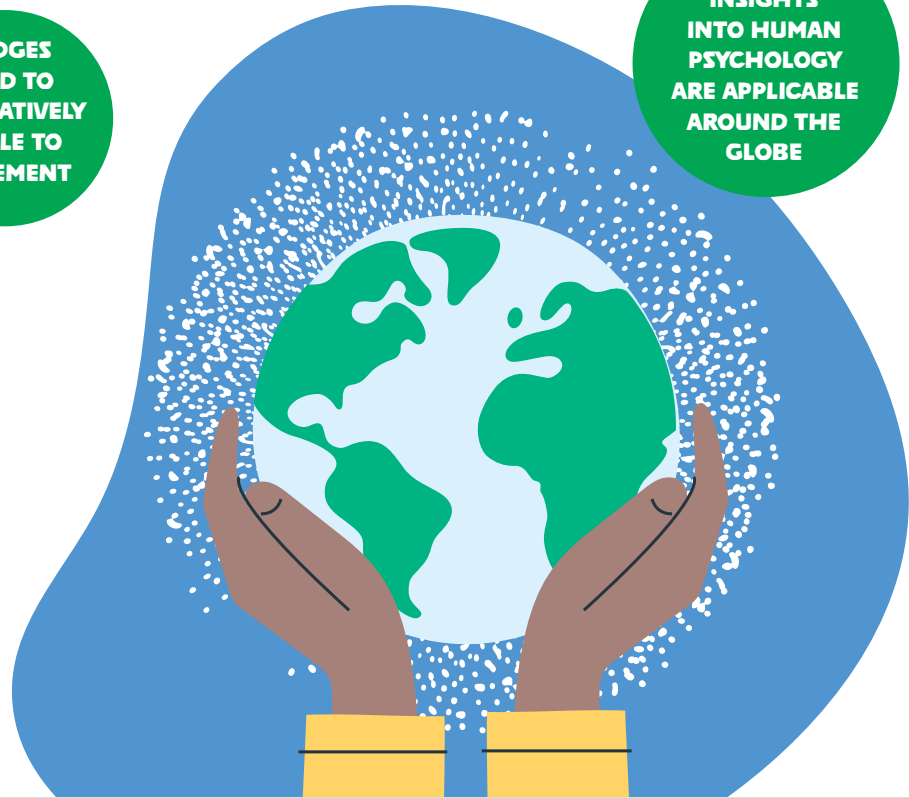
Nudges tend to be relatively simple to implement, so you don't have to be a policymaker with a lot of influence and resources in order to put a nudge into effect. Perhaps you are ...

- a university leader looking to prioritize environmental responsibility on campus
- a sustainability manager wanting to make an impact on a tight budget
- a student interested in trying out something new and making a difference

This little book brings together a wide range of nudges, well supported by evidence, and many already tested by colleges and universities. The 40 featured nudges are grouped into 12 broad strategies, which can be adapted and applied by different people to different behaviours in different contexts.

**NUDGES
TEND TO
BE RELATIVELY
SIMPLE TO
IMPLEMENT**

**MANY
INSIGHTS
INTO HUMAN
PSYCHOLOGY
ARE APPLICABLE
AROUND THE
GLOBE**



NUDGES CAN BE EFFECTIVE ALL AROUND THE WORLD

Nudging works by focusing on aspects of human behaviour that are largely universal. Although most behavioural science research has been carried out in Western Europe and North America, many insights into human psychology are applicable around the globe.

For example, humans everywhere respond to social norms, and our dependence on habit and other non-conscious mental processes is rooted deeply in our evolutionary make-up. The particular social norms and habits on your campus may differ from those on other

campuses, but you can still use similar strategies for nudging. Likewise, social norms may differ by gender, age group, or other social or cultural identity, but your nudges for particular target groups can take the same underlying approach.

HOW TO NUDGE: GO EAST

If you want to encourage a behaviour, make it Easy, Attractive, Social and Timely.⁶

Easy

People often take the path of least resistance. You can therefore encourage desirable behaviours by removing small frictions or hassles, by defaulting people into the desirable choice, or by redesigning the way choices are presented to make the desirable behaviours easier.

Attractive

Humans are more likely to adopt a behaviour when it captures our attention or is in line with our motivation and beliefs. You can draw attention with visual cues that are particularly relevant or noticeable, and leverage motivation by emphasizing the positives and using incentives.

Social

Human behaviour is hugely influenced by what others around us are doing. You can promote desirable actions by highlighting the fact that other people are adopting them. You can also make behaviour more publicly visible, and emphasize opportunities for people to help each other.

Timely

People are creatures of habit, so nudges are most effective at moments of change in people's lives. We also have a deep tendency to emphasize the present more than the future. You can harness these tendencies by timing campaigns strategically, highlighting the immediate benefits of sustainable actions, and helping people plan ahead.



In the following pages, we provide ideas in each “EAST” category for nudges you could implement on your campus. Use the icons below to find nudges in eight target areas of behaviour change.



Energy conservation



Water conservation



Sustainable diets



Reduced material consumption



Sustainable and reduced travel



Reduced food waste



Recycling



Engagement and support for change

MAKE IT EASY

Use defaults

The nudge: Make the more sustainable behaviour the default option.

Evidence that it's effective: Defaulting customers into a renewable electricity tariff in Germany led to a 10-times increase in the number of people on that tariff.⁷

Why it works: People tend to stick with the default choice or the status quo. This is because we don't engage consciously with many of our daily decisions, or we lack the motivation to take a different course of action. Defaults are also often perceived as a "safe bet" or an implicit recommendation.



Set the norm that diners will use their own cup and cutlery

How? At cafeterias, coffee shops and catered events on campus, let people know that they are expected to bring and use their own reusable cups and cutlery. Only provide disposable cups and cutlery if people specifically request them.

Who might be involved? Campus catering coordinators



Make the most sustainable meal the default choice

How? At catered events on campus, make the more sustainable option, such as a plant-based dish, the default. If attendees want another option, such as red meat, they must pre-order it (the opposite of the current norm, which often requires people to pre-order plant-based food).

Who might be involved? Campus catering coordinators, catering companies



Default to eco settings on appliances and electronics

How? Set heating and air-conditioning systems to more moderate temperatures, and automatically turn them far down or off over holidays, unless overridden. Set dishwashers and other appliances to run on eco settings. Set printers to double-sided mode by default,⁸ and fill them with recycled paper. Hold “set up your computer” drop-in sessions to help people set their own laptops to modes that will save energy and print double-sided.

Who might be involved? University administrators, campus building managers, IT department

CASE STUDY

The **University of Malta** has reduced paper use by establishing a default of having students digitally submit assignments and research ethics applications. It has also used defaults to reduce energy consumption: the campus replaced stand-alone air-conditioning units with a centralized system that has time controls and default settings to moderate temperatures.



Make remote dial-in and sustainable travel the default options

How? For meetings, conferences and events on your campus, make remote dial-in the default option for attendees who do not live nearby. For events elsewhere that your staff and students are invited to, make remote dial-in the default and require attendees to make the case to go in person. When people do have to travel, set the expectation that they will use public transit, take the train or ride-share whenever possible. When booking flights, default carbon offsetting into the process.

Who might be involved? University administrators, department administrative staff

CASE STUDY

At **Portland Community College, US**, employees’ computers are on a default setting to shut down overnight. The college adopted this system after trying other approaches that did not have an impact, including sending email prompts and sharing information on the college website. To make the case for implementing the default, a night audit was conducted to see how much equipment was being left on, and then the IT department was brought in to help estimate how much energy and money could be saved each month by shutting computers down automatically. Approval was then granted to implement the nudge, and now the college estimates that the default shutdown has saved several thousand kilowatt-hours of electricity per year.

MAKE IT EASY

Remove or add frictions

The nudge: Remove small barriers to sustainable behaviour, and add barriers to unsustainable behaviour.

Evidence that it's effective: The recycling rate in an American campus building increased after the introduction of bins with specialized lids, which made it easier to see which items should go where (removing friction).⁹ Less food was wasted when an American university cafeteria did not provide trays, as people had to make an effort to get more food (adding friction).¹⁰

Why it works: We're disproportionately impacted by small "friction costs" or points of hassle. Removing these frictions can help people act on their intentions to be more sustainable, while introducing frictions can discourage undesirable actions.



Make it easier to cycle around campus

How? Offer bike-sharing programs at convenient locations on campus, or offer students hassle-free or discounted access to municipal or private bike-sharing schemes. Hold free bike repair events on campus. Create well-marked, safe cycling routes. Provide showers and convenient cycle storage.

Who might be involved? Students, university administrators



Introduce applications for parking cars on campus

How? Require people wishing to drive to campus to register their cars or apply for a parking permit, even if doing so is free. Increase the friction further by having permits last only for a day or a week, so that people have to reapply.

Who might be involved? Campus parking administration



Aalto University in Finland has made it easier to cycle to campus by installing bike repair stations and parking.



Make it harder to let taps and showers run

How? Install shower timers in halls of residence. Equip sinks with push-button taps that automatically turn off after 30 seconds.

Who might be involved? University administrators, campus building managers



CASE STUDY

University College Cork, Ireland, reduced the hassle of using reusable cups by installing cup washers on campus, then saw a 20 per cent increase in reusable cup use.



In university cafeterias, offer smaller plates and no trays

How? At buffet-style campus cafeterias, help prevent food waste by providing small plates rather than large ones and not supplying trays. This makes it more difficult to take large amounts of food, but leaves people free to get more later if they are still hungry.

Who might be involved? Campus catering coordinators

CASE STUDY

The **University of Winchester, UK**, has made it easy for students to donate unwanted goods to local charities supporting homeless and vulnerable communities by providing “collection packs” at student accommodation, including donation bags and category stickers for sorting them. This “Bag It Up” campaign was started by the University Environment Team, the housing and cleaning staff, student representatives and the charities. It required collaboration with senior management, the housing department and the cleaners, whose work practices changed due to the scheme. Resistance to changed work practices could have been a barrier, but the cleaners were supportive once the organizers explained their intentions. The initial cost of the donation bags was offset by the savings from reduced waste disposal.

CASE STUDY

The **University of St Andrews, UK**, has removed trays and reduced the size of plates to cut food waste in student dining areas.

MAKE IT EASY

Change the choice environment

The nudge: Facilitate sustainable choices by making them more accessible and available.

Evidence that it's effective: Diners were more likely to choose sustainable food options in British and Swedish university canteens when these options were listed at the top of the menu, made more visible, or made more available relative to other options.^{11,12}

Why it works: Our subconscious decision-making is influenced by the availability and positioning of items: we're more likely to choose what is more available, easier to reach or first on a list. We also evaluate choices relative to the other options that are present, so a large cup of coffee would seem small compared to an extra-large one, but not compared to a small one.



Make sustainable options more prominent

How? Place foods that are more sustainable at the front of fridges or counters, at eye level and near checkouts. Put recycling bins in front of rubbish bins.

Who might be involved? Campus catering coordinators, campus building managers

CASE STUDY

At **Dalhousie University**, Canada, students helped the Office of Sustainability analyse the number and types of waste bins and signage on campus. Based on this research, students and staff removed 4,500 individual rubbish bins, added more than 3,000 recycling and compost bins, and placed more than 4,000 signs and stickers. In addition, the university used choice architecture to encourage sustainable transport, by installing more bike

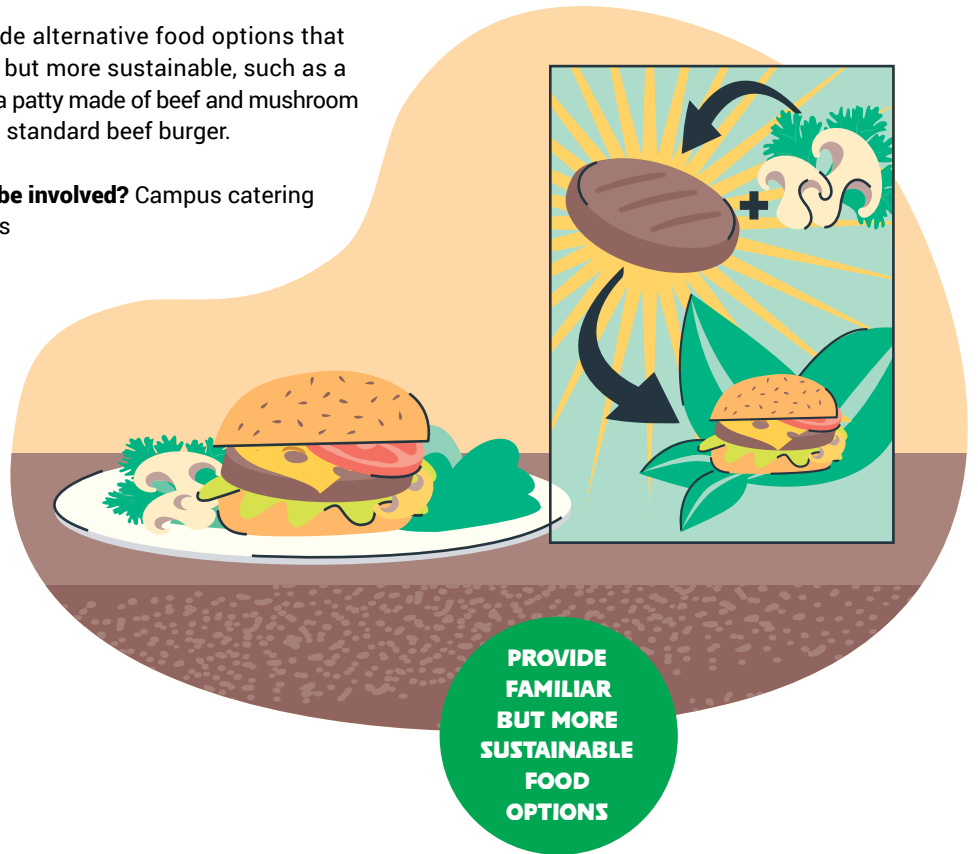
racks, bike pumps, bus shelters and electric vehicle infrastructure. Their tips for successful implementation include consultation and engagement with all parties involved, including users; creating business cases to identify and secure funding; agreeing on a maintenance plan with custodial staff and facilities management; and creating opportunities for students to research issues on campus and showcase how their findings are having a real impact.



Offer sustainable substitutes for common foods

How? Provide alternative food options that are familiar but more sustainable, such as a burger with a patty made of beef and mushroom instead of a standard beef burger.

Who might be involved? Campus catering coordinators



Make sustainable options more prevalent

How? Provide a higher proportion of plant-based dishes and products in cafeterias and shops. Provide more bike parking relative to car parking. Provide more recycling bins relative to rubbish bins, and make sure they are in locations where they are especially needed, such as kitchens and cafeterias.

Who might be involved? Campus catering coordinators, campus building managers, university administrators

**PROVIDE
FAMILIAR
BUT MORE
SUSTAINABLE
FOOD
OPTIONS**

MAKE IT ATTRACTIVE

Draw attention

The nudge: Attract attention to a sustainable option by using messaging that is personalized or relevant for your specific target audience. Make sustainable actions or infrastructure stand out with visual cues.

Evidence that it's effective: Study participants who read messages about the local effects of climate change (making it more personally relevant) reported higher engagement than those who read about global effects.¹³ Painting green footsteps on the ground leading up to bins (an eye-catching cue) resulted in less litter on the street around the bins in a Danish city.¹⁴

Why it works: We have finite attention and mental capacity, so we're drawn to stimuli that stand out, are engaging and are relevant to us. This includes seeing our names and seeing bright and contrasting colours.

CASE STUDY

Recycling is eye-catching at **Mahidol University**, Thailand, where a "recyclable waste bank" project has created recycling points that mimic banks' transaction and withdrawal systems. When people deposit recyclable items, they get a bank statement showing the value of those items, and they can withdraw this in cash or save it in their

account. The university's IT division created software for the project, and the "banks" have now been expanded beyond campus to local elementary schools. The biggest barrier to implementation was raising awareness of the banks, so the university puts effort into promoting them to new students and staff.



Make recycling bins eye-catching

How? Use design and cues in the physical environment to draw people's attention to recycling bins rather than rubbish bins, for example by painting them conspicuous colours or placing footstep markers leading up to them.

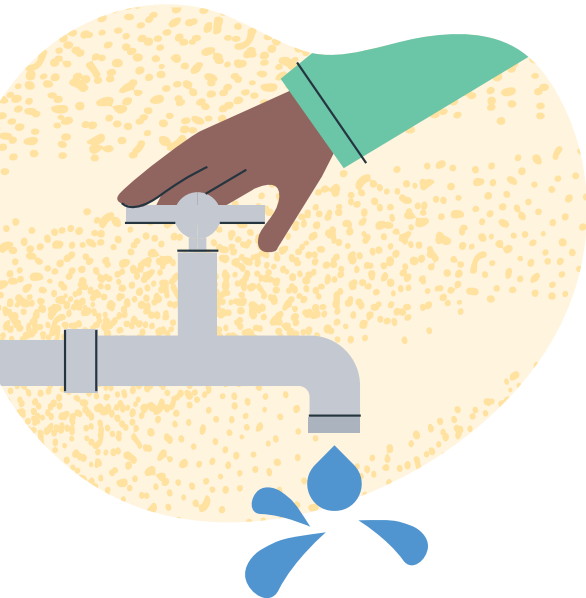
Who might be involved? Campus building managers



Install smart meters with feedback displays

How? In student halls of residence and university department buildings, provide smart meters for electricity, gas or water that show how much is being consumed in real time, and include information on the associated costs, making the impacts of consumption obvious and personally relevant.

Who might be involved? Campus building managers, university administrators



Indicate food “use by” dates clearly

How? For food packaged and sold on campus, such as sandwiches, provide a single label type to tell consumers how long the food is good for (“use by” a certain date), information that stands out and is unambiguous. This prevents people from getting confused by other labels (e.g. “best before” and “sell by” dates) and throwing out food when it is still edible.

Who might be involved? Campus catering coordinators, food companies



Personalize messages

How? Address communications and campaigns to recipients by name when possible, and tailor them to specific interests or circumstances. For example, students living in campus buildings might get different energy-saving tips than those living in off-campus accommodations.

Who might be involved? Campus sustainability coordinators, student sustainability groups

CASE STUDY

Tongji University, China, encourages students to sort garbage and recycling correctly with waste-sorting game machines.



MAKE IT ATTRACTIVE

Frame messages positively and highlight co-benefits

The nudge: Use positive messages that will resonate with your target audience and make them feel good about themselves. Highlight the co-benefits of a sustainable behaviour, such as how it will save people money or make them healthier in addition to conserving natural resources.

Evidence that it's effective: A survey of UK citizens who had adopted lower-carbon lifestyles found that concern for “the environment” was often not their primary motivation.¹⁵ People in a study who were asked to imagine the positive emotion of pride expressed more pro-environmental intentions than people asked to imagine guilt.¹⁶

Why it works: People tend to find messages based on pride, fun and humour more compelling than those based on guilt. People are also driven by desires to save money, have fun, get healthy and be social.



Promote plant-based food as aspirational, delicious and filling

How? Change the descriptions of plant-based food on menus and packaging to evoke taste and indulgence, like “spicy chickpea curry” and “pasta with creamy sauce”.¹⁷ Avoid terms like “vegetarian” and “meat-free” that can have negative connotations, implying to some people that plant-based food is lacking substance or flavour.

Who might be involved? Campus catering coordinators





Harness positivity and pride

How? Campaign with a message of positivity, avoiding a tone of guilt or admonishment. For example, tap into people’s sense of group identity and belonging to their university to foster pride in the campus’s beauty and natural areas, and ultimately promote engagement with environmental issues.

Who might be involved? Campus sustainability coordinators, student sustainability groups, university administration



Create social opportunities for sharing and reuse

How? Hold events such as repair cafés and set up networks for activities such as ride-sharing. Promote these as social occasions and ways for budget-conscious students to save money, rather than solely as pro-environmental causes.

Who might be involved? Campus sustainability coordinators, student sustainability groups



Students at the University of Ghana.

MAKE IT ATTRACTIVE

Use smart incentives

The nudge: People can be motivated by financial rewards and savings, including “gamified” monetary incentives such as lotteries or competitions. They can also be encouraged towards sustainable behaviour by non-monetary incentives, such as public recognition.

Evidence that it's effective: People in the US who played a game competing with others to be more sustainable consumed less energy for several months after playing the game.¹⁸

Why it works: Lotteries can be effective motivators because people often focus on a large prize, even if their chance of winning it is small. Non-financial incentives can work because social approval or recognition can be just as motivating as money (see the “Make It Social” section to follow). Also, if there is a risk of payment displacing people's intrinsic motivation to do the right thing, non-monetary rewards and social recognition can be more effective.



ENCOURAGE PEOPLE TO BRING THEIR OWN MUG BY CHARGING EXTRA FOR DISPOSABLE CUPS



Charge for not using your own coffee mug

How? Instead of providing a discount for bringing a reusable mug to campus coffee shops, harness loss aversion by adding a fee for using disposable cups.

Who might be involved? Campus catering coordinators



Promote sustainable “meal deal” incentives

How? In campus cafeterias and shops, offer promotional deals that encourage sustainable choices. For example, have daily specials be plant-based, or offer a free drink to diners who choose a plant-based main course. (But to prevent food waste, avoid promotions that encourage people to get more food than they need, such as offering a free side dish alongside a sustainable main course.)

Who might be involved? Campus catering coordinators



Publicly display sustainability ratings

How? Put displays in cafeteria windows to show how much food waste has been reduced, or in public areas of residence halls to show how much energy has been saved. This can be a social, non-financial incentive, making people feel like they are gaining status through a group effort, or it can stimulate a sense of competition between residence halls to save the most energy or recycle the most waste.

Who might be involved? Campus sustainability coordinators, campus catering coordinators, campus building managers



Introduce lottery-based deposit return schemes

How? Most deposit return programs charge customers a small fee when they purchase plastic, glass or aluminium drink containers, then refund it when the container is returned. Instead, make container return more attractive by having the deposit provide entry into a lottery with large and appealing prizes. The total amount of money paid out can be the same.

Who might be involved? University administrators

CASE STUDY

At **Universidad de la Costa**, Colombia, students and staff received a small gift, such as a pen or keychain, in exchange for bringing in recyclable material over a certain weight.

MAKE IT SOCIAL

Highlight others' sustainable behaviour

The nudge: Publicize the fact that many people are already adopting a green behaviour.

Evidence that it's effective: High-consuming electricity customers in the US decreased their usage after receiving reports comparing them to their more efficient neighbours (and low-consuming customers stayed low when given positive feedback in the form of a smiley face).¹⁹ People were more interested in cutting down their meat consumption when they were informed that a growing number of people had recently started eating less meat.²⁰

Why it works: People are highly influenced by what others are doing, so we're more likely to adopt a behaviour when we think that the majority of people do it or an increasing number of people are shifting towards it.



Share information about positive trends

How? If a desired sustainable behaviour is performed by a growing minority, publicize that fact. For example, highlight that more and more people are eating plant-based foods or using reusable cups.²¹

Who might be involved? Campus catering coordinators, campus sustainability coordinators, student sustainability groups



Provide social comparisons of energy and water use

How? Send messages to individuals letting them know whether they consume more energy or water than others, or publish a list ranking users by their consumption. This approach tends to be more effective when comparing individual people rather than groups.

Who might be involved? Campus building managers



Publicize university rankings that measure sustainability

How? Build engagement among university staff by highlighting how campus sustainability initiatives are taken into account in many university league tables or rankings, making sustainability a status symbol and tapping into competitive instincts.

Who might be involved? University administrators



CASE STUDY

The **University of Bath**, UK, logged shower duration in campus residences, and used the information in social norm messages. They found that students who were told they took longer-than-average showers decreased their shower time. But they also noted that those who were told they took shorter-than-average showers increased their shower time.

CASE STUDY

The **University of California, Davis**, US, has a green workplace certification programme to give public recognition to sustainable offices and labs on campus.

CASE STUDY

Karatina University, Kenya, which recently branded itself as a “Green University”, has established a Green Innovations competition week, where teams of students submit projects that address environmental issues through social and technological innovations, with prizes for the winning teams.

MAKE IT SOCIAL

Harness identity and the right messengers

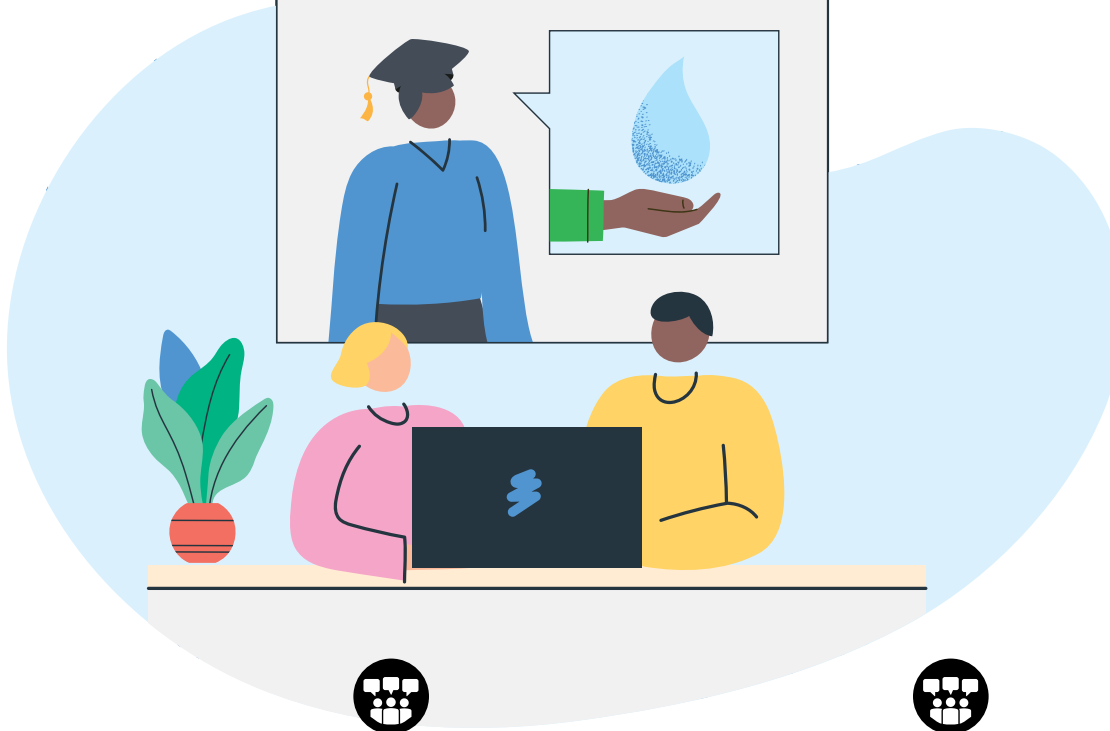
The nudge: Use messaging that focuses on a positive social identity or implies that the recipient's social group includes people who perform a desired behaviour. Send messages from people the recipient is likely to respect or identify with.

Evidence that it's effective: A campaign to reduce illegal wildlife trade among men in Vietnam highlighted the desirable identity of internal character strength ("chi"), contrasted with obtaining strength from rhino horn consumption.²² Students from disadvantaged backgrounds in the UK were more likely to apply to university when they received a letter of encouragement from a former student with a similar background.²³

Why it works: People attach a lot of value to their sense of identity and to social groups they belong to or want to belong to. Social influences are particularly powerful when they come from "people like us", or people we find likeable, credible or authoritative.



Student activists at Cyprus University of Technology.



Broaden messages to appeal to a wide audience

How? When promoting positive behaviours, avoid terms associated with narrow identities that could make people feel excluded. For example, avoid words such as “vegetarian” or “vegan” to describe food on menus (try “field-grown” instead),²⁴ and don’t frame bicycling as an activity done by “cyclists”, as this may alienate certain groups, including some women.²⁵

Who might be involved? University administrators, campus sustainability coordinators, student sustainability groups, campus catering managers



Choose messengers who will be received positively

How? In messaging campaigns, make sure the sender is someone the recipient identifies with or is likely to feel positively about. For a student audience, appropriate messengers could be fellow students or former students, especially if they are well known. Ensuring that characteristics of messengers reflect the target audience (for example, in terms of gender, ethnicity and age) is key to appeal to different parts of the populace.

Who might be involved? Campus sustainability coordinators, student sustainability groups



Highlight desirable identities

How? Frame campaigns in terms of identities that people aspire to or groups they belong to. For example, the “Don’t mess with Texas!” messaging campaign in the US reduced litter by harnessing a group identity that Texans are proud of.

Who might be involved? Campus sustainability coordinators, student sustainability groups

MAKE IT SOCIAL

Use social connections and peer pressure

The nudge: Encourage people to make public commitments to sustainability and reach out to others in their social networks. Encourage groups to take action together, such as sports teams, university departments and halls of residence. Highlight opportunities for people to help each other.

Evidence that it's effective: A message about helping others increased the number of people signing up to be organ donors in the UK by 35 per cent compared to a control message.²⁶

Why it works: Feeling a responsibility to do something “for” someone else can be a strong motivator. This can involve commitments made to another person or in public (people want to avoid the social cost of not following through), influence from peers and others in our social networks, and reciprocity (people feel obliged to do something in return for someone who has done something for them).



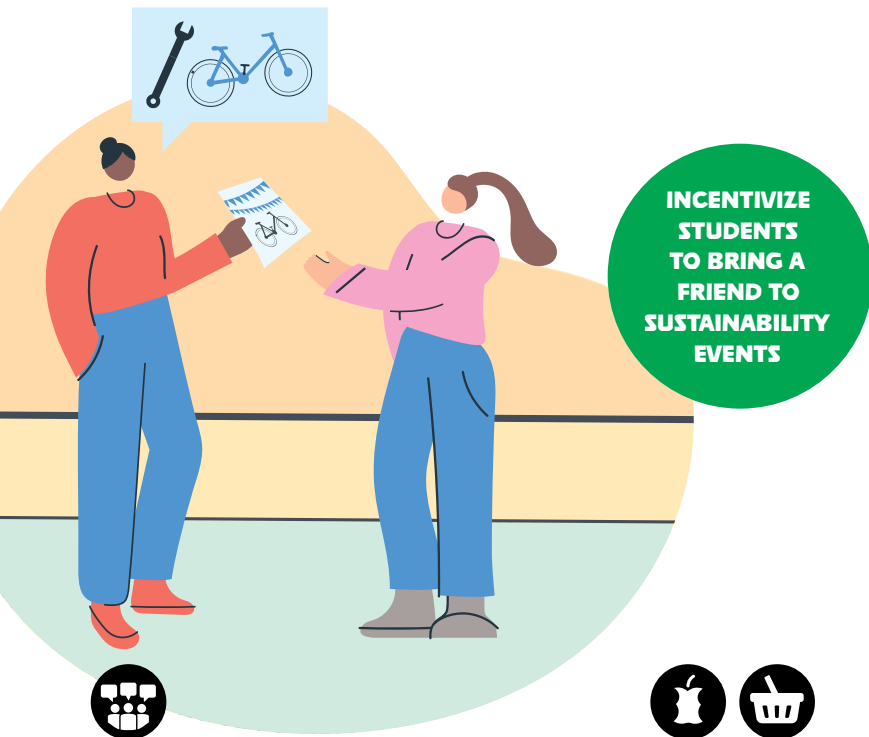
Create opportunities to make public pledges

How? Encourage staff and students to make pledges towards sustainable goals in front of peers. Suitable moments could be when new employees join the university, when students move into residence halls, or when students join membership clubs.

Who might be involved? Campus sustainability coordinators, student sustainability groups



Student activists at Universidad Nacional Pedro Henríquez Ureña in the Dominican Republic.



INCENTIVIZE STUDENTS TO BRING A FRIEND TO SUSTAINABILITY EVENTS



Provide incentives to encourage peer referral

How? When holding sustainability events on campus, build support and engagement by giving attendees a small perk if they bring along a friend.

Who might be involved? Campus sustainability coordinators, student sustainability groups



Distribute and share leftovers

How? Reduce food waste by tapping into people’s social networks and desire to help others. Facilitate giving away leftover food by setting up a campus-wide food-sharing group, or encouraging sign-ups to an existing food-sharing app. Encourage campus cafeterias and food shops to give away leftovers or sell them cheaply, or use an existing app that facilitates this.

Who might be involved? Campus sustainability coordinators, student sustainability groups, campus catering coordinators

CASE STUDY

Five students at **Aalto University**, Finland, set up a food-sharing group that enables distribution of leftovers on campus, such as from meetings and parties, for free. They were mentored by the Aalto Ventures Program during its flagship “start-up experience” course, and started their initiative by collecting and analysing kitchen waste on campus to gain insight into what food was being thrown away. They set up the food-sharing group without any funding, and all marketing happened via word of mouth. The founders thought the biggest barrier was encouraging the initial members to join, but now they have a growing membership of more than 1,000 people. So far, the group has prevented more than 7,000 kilograms of food from going to waste. Their tips for success are to reach out to supermarkets, restaurants and student associations on campus and ask them to share leftovers, and to regularly seek feedback from users.

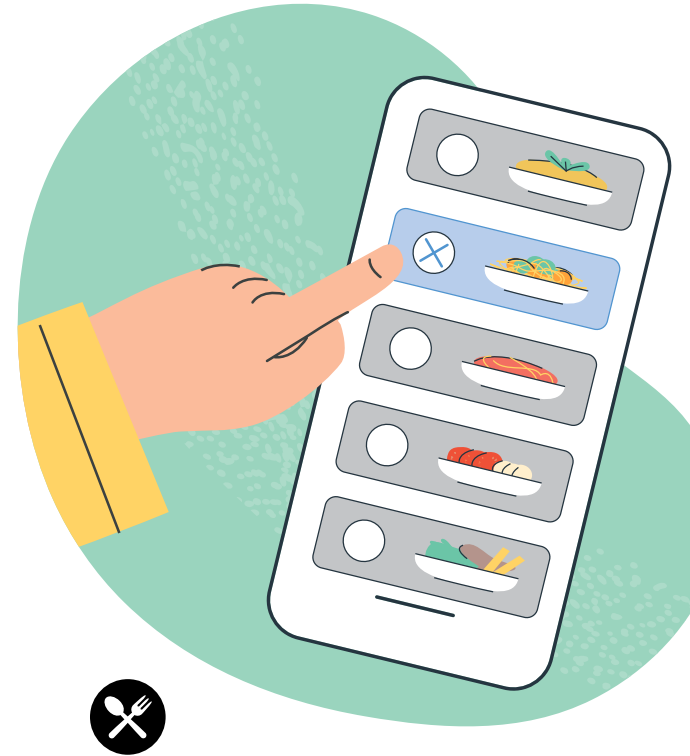
MAKE IT TIMELY

Encourage pre-commitments and emphasize present benefits

The nudge: Ask people to commit ahead of time to a sustainable action and make small changes at first. Highlight benefits of sustainable behaviour that can be experienced in the short term.

Evidence that it's effective: Hotel guests were more likely to reuse towels when they committed to do so at check-in.²⁷ Consumers were more willing to buy energy-efficient washer-dryers when given information at the point of purchase about the lifetime running costs, as this made the future savings more salient in the short term, offsetting the higher immediate purchase costs of efficient appliances.²⁸

Why it works: The complexities of life and our limited willpower often get in the way of our good intentions. We are therefore more likely to act on those intentions if we lock ourselves into a commitment in advance, such as signing up to run a marathon. We feel more strongly about consequences that are more immediate, so we are more likely to follow through if the benefits are emphasized in the present and the costs are pushed into the future.



Encourage pre-ordering of catered meals

How? In catered halls of residence and at university events, ask attendees to choose food in advance, when immediate gratification is not an issue and people tend to favour long-term intentions for being healthier and more sustainable. This could be combined with other nudges towards plant-based food.

Who might be involved? Campus catering coordinators, catering companies



Ask people to pre-commit to gradual changes

How? Rather than pushing people to make large changes to their behaviour, ask them to commit to making cumulative small changes. For example, they could start by cycling to campus one day per week this term, and increase to two days per week next term, and so on.

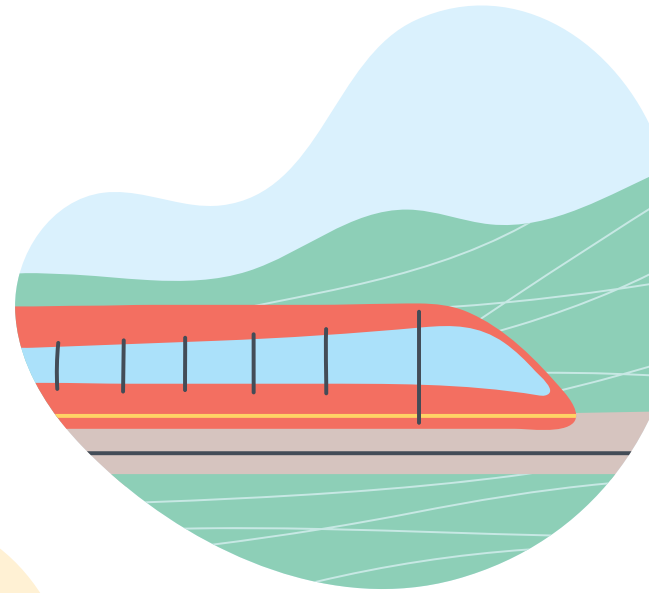
Who might be involved? Campus sustainability coordinators, student sustainability groups



Offer interest-free loans for public transport passes

How? Make the financial benefits of public transport more immediate by providing interest-free loans for students and staff to buy season passes or tickets. Once people have bought a season pass, they will be more likely to use public transport.

Who might be involved? University administrators



MAKE IT TIMELY

Harness or create timely moments

The nudge: Run communication campaigns and events at times when people are forming new routines, such as the beginning of term. Create special occasions for collective action, such as “Cycle to Campus Week”.

Evidence that it's effective: People were four times more likely to sign up to a new bike-sharing scheme when they had recently moved into the area (because they were forming new routines in their lives) compared to when existing residents just had a bike docking station installed near their home.²⁹

Why it works: Humans are creatures of habit and it can be difficult to change our behaviour once we've gotten into a routine, but you can capitalize on or generate moments of disruption to help people start new habits. For example, encourage changes when someone moves house, or get people to try something new during a dedicated day, week or month.



Help newcomers form sustainable habits

How? Provide tips on sustainable food choices to first-year students, who may be shopping and cooking for themselves for the first time. Give new staff and students tips on sustainable travel to and around campus, such as transport information and maps of good bicycle routes.

Who might be involved? Campus sustainability coordinators, student sustainability groups, HR department



Reduce waste at the end of term

How? Provide locations or hold events where students can donate or sell textbooks when they have finished classes, or give away household items when they are moving out of accommodation. The university or student groups could sell these items the following term.

Who might be involved? Campus sustainability coordinators, student sustainability groups, campus store managers



Hold campus-wide moments of action

How? Arrange times for collective action, such as an energy-tariff switching day for students living in their own accommodation. Introduce short-term campus-wide changes, such as asking people to cycle to campus one day each month, or encouraging people to eat plant-based food during one week, to build support for larger change.

Who might be involved? Campus sustainability coordinators, student sustainability groups, campus catering coordinators

CASE STUDY

The **Universidad Tecnológica de Pereira**, Colombia, holds mass waste collection days four times a year, which also involve community members in raising awareness about reducing waste.

CASE STUDY

The **University of British Columbia**, Canada, runs a “Seasonal Shutdown” campaign, encouraging campus department buildings to turn off and unplug electronics during the winter break. This includes the additional nudge of providing a checklist (see “Provide checklists” section on the following page).

MAKE IT TIMELY

Help people plan and follow through

The nudge: Provide people with simple tips about specific small behaviour changes they could make, and ask them to plan out the steps they will take along the way.

Evidence that it's effective: When employees planned their recycling intentions, a company produced less waste going to landfill.³⁰

Why it works: We're more likely to act on our intentions when we have a specific plan with concrete actions and steps to overcome potential barriers. Simple guidelines and rules of thumb can also keep us on track, as can prompts or reminders at key moments and feedback on the positive effects of our behaviour.



Provide checklists

How? In student accommodation, provide step-by-step checklists to help residents make more sustainable decisions: for example, how to use leftover food and avoid food waste, how to obtain secondhand or shared items on campus, and how to reduce energy consumption at home.

Who might be involved? Campus sustainability coordinators, student sustainability groups, campus building managers



Support people before they need it

How? Hold events at which people can get their bikes fixed for use the following term, helping them plan ahead and be ready to cycle in the future.

Who might be involved? Campus sustainability coordinators, student sustainability groups, technical staff

**HOLD
EVENTS AT
WHICH PEOPLE
CAN GET THEIR
BIKES FIXED FOR USE
THE FOLLOWING
TERM**



Help people follow through on saving energy

How? As part of an energy-saving campaign to encourage people to turn off computer monitors and unplug chargers, help people follow through by putting reminder messages on computers and powerstrips to highlight the costs of wasting electricity.

Who might be involved? Campus building managers

CASE STUDY

The **University of Copenhagen**, Denmark, created a nudge to reduce heating loss from open windows by hanging turnable cards on them, with a red side to remind people to close windows and a green side to show when windows have been closed.

FIVE STEPS TO MAKE YOUR NUDGE A SUCCESS

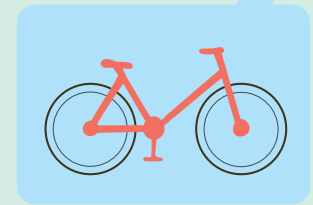
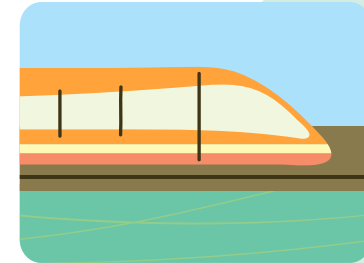
Many of the nudges in this book could be lifted right from the page and implemented on your campus. But if you want to increase your odds of success by tailoring the nudges to address a specific issue on your campus, follow this five-step process.

1 CHOOSE YOUR TARGET BEHAVIOUR

Be specific: Nudges are more effective when they target a specific behaviour and a specific audience. Instead of “Promote more sustainable food choices among students”, a better target could be “Reduce red meat consumption by students in campus cafeterias”. Remember to target an action, not an attitude or awareness.

Look for quick wins: Some behaviours are difficult to change because they are dictated mostly by cost or structural barriers, such as deciding whether to insulate campus buildings to conserve energy. These are important to consider, but the power of nudges is often in achieving impact where behaviours are more malleable, such as switching off lights, recycling or choosing different foods.

Aim for impact: Some behaviours have more of an impact on the environment than others. For example, preventing unsustainable consumption (e.g. reducing single-use plastics) is generally better than trying to mitigate its effects (e.g. encouraging recycling). Try to focus on behaviour change that will make the biggest difference.





2 UNDERSTAND YOUR CONTEXT

Consider factors that affect human behaviour:

It's useful to think about three levels:³¹

- *The individual level:* What conscious motivations, attitudes and knowledge do individuals have? And how do non-conscious biases, habits and emotions influence them?
- *The social level:* How is our behaviour shaped by cultural norms, identities, relationships and interactions with other people?
- *The material level:* What is the wider context of the behaviour? What are the constraints or incentives set by economic factors, infrastructure, technology and availability of options?

Identify barriers to behaviour change: Consider which of the individual, social and material influences may make it difficult for people to adopt your target behaviour. For example, if buying green products is considered “feminine”, then cultural norms (a social influence) could be a barrier to encouraging environmentally responsible consumption.³²

Identify drivers of behaviour change: Consider which of the individual, social and material influences may facilitate the behaviour you want to encourage. For example, if students are on a tight budget, then a need to save money (a material influence) could be harnessed to help reduce food waste.

Look for touchpoints for intervention: Given these barriers and drivers, where and when could you intervene to change behaviour on campus?

- What are the moments of decision for your target audience? For food waste, this could be when buying food at a campus cafeteria or when deciding what to throw out of a fridge in a student kitchen.
- What points of influence do you have over your target audience? For example, you have more influence over what students buy at a campus cafeteria than at a supermarket.
- What channels of communication or contact do you have with your target audience? These could include posters on campus or a regular end-of-term email to staff, but could also include changing the choice environment in which a student buys their groceries.

Reassess and finalize your target: In answering these questions, do you still believe you have chosen the best target behaviour, one that gives you an opportunity to maximize impact and feasibility? If not, consider other targets and repeat steps 1 and 2.

3

DESIGN YOUR NUDGE

Now that you have a specific target behaviour and an understanding of the context, pick a type of nudge from the EAST categories that is likely to address the barriers you identified and harness the potential drivers.

Consider what will be most effective: For example, you are likely to save more paper by

setting printers to default to double-sided mode than by reminding people to print double-sided.

Choose a nudge that you can realistically put into action: For example, it might be difficult to change the road infrastructure on campus, but easier to paint coloured cycle lanes on the roads to make them more inviting for people on bikes.



Involve the right people: Find out who on campus is responsible for any processes or systems your nudge will change. Ensure you engage them in the process so you can overcome institutional hurdles. (The campus catering coordinator, for example, can be a critical ally.) Agree who is responsible for each component of implementing your nudge and assign each person specific tasks with clear timelines.

Build support on campus: Reach out to key groups or individuals, such as the student union or campus sustainability coordinator, to

let them know what you're planning and why, and to solicit their feedback. They could help your nudge gain acceptance and have greater impact. Make sure to include people from different groups in your outreach, including people of different genders and backgrounds.

Recognize people who might be negatively affected: For example, if your nudge aims to discourage driving, how might it affect those who are unable to walk or cycle, or who are more at risk when using public transport? What measures could be put in place to support them?



CASE STUDY: OVERCOMING BARRIERS

At the **University of California, Berkeley, US**, students in the Housing & Dining Sustainability Advocates group found that the main barrier they face is finding time with the appropriate campus staff to approve changes such as rearranging bins, hanging up new signs or using different products. Their tip is to build relationships with others on campus, including facilities managers, dining managers, chefs, custodians and campus administrators. They found that when they shared their goals, others on campus were more likely to support them.

4

TEST THE EFFECTIVENESS OF YOUR NUDGE

Trial before you roll out on a large scale: It's easy to assume that a nudge will be effective, but even if you have good reason to believe so, this may not be the case in practice. Test out your intervention on a small scale to see how well it works.

Measure outcomes: How could you measure your target behaviour? Direct observation, such as recording sales of plant-based dishes in a campus cafeteria, is generally more reliable than indirect reports, such as asking people in a survey what they ate for lunch.

Compare outcomes: How would you know that a change in the target behaviour is due to your nudge? You'll need to compare the outcomes of people who experienced the nudge and those who didn't. For example, some halls of residence could be randomly allocated to receive messages about reducing energy consumption while others receive no nudging messages.

Watch for knock-on effects: Might there be unintended consequences of your nudge, either positive or negative? On one hand, our attitudes



CASE STUDIES: TRIALLING YOUR NUDGE

Yale University, US, implemented a nudge to increase recycling and reduce waste in campus buildings, and trialled it by assigning buildings to different test groups. Buildings in the first group received a monthly statement showing a monetary cost associated with the amount of waste generated, those in the second group received a statement plus tips for reducing waste, and those in the third group (including

only the undergraduate residential colleges) were entered into a recycling competition. Over four months, there was a decrease in waste production in all three groups, and an increase in recycling in the second and third groups.

HEC Paris made cigarette-disposal bins more eye-catching by adding a basketball hoop on one bin and a "voting box" on another where students could show their support

for a humorous cause by throwing in a cigarette butt. They tested this initiative by measuring the number of cigarette butts discarded on the ground before and after the nudge was implemented, and by comparing the areas with eye-catching bins to control areas with standard bins. They found that the number of discarded cigarettes decreased by over a third in the nudge areas.



often shift to match our behaviour, so nudges to change behaviour can help build support for engagement. On the other hand, if we substitute a new behaviour for the old one, that new behaviour might have undesirable effects (see case studies).

Consider the whole population: Might certain parts of the population be affected differently by your nudge? Make sure to check the outcomes for people of different genders, cultures and other groups.

CASE STUDIES: UNINTENDED CONSEQUENCES

When the **University of Hong Kong** stopped the use of some disposable plastic items on campus, there was reduced consumption of these items but also a partial switch to different disposable items such as paper containers. To tackle this, the university is encouraging staff and students to adopt bring-your-own habits, including discounts for people who use their own containers at campus catering outlets, and a “BYO week” in collaboration with all other universities in Hong Kong.

The **Technical University of Denmark** introduced meat-free days in campus canteens. But then it found that more people ate at street food stalls on campus that sold meat, which had the additional consequence of greater use of single-use packaging and cutlery. In response, the canteens changed the nudge to feature less meat rather than no meat. Canteen sales returned to their previous levels, so this adjustment appears to have brought customers back.



Students at the University of Hong Kong fill up their reusable containers.

5

REFLECT AND REDESIGN

Build on success: Was your nudge effective? If so, don't stop here!

- Refine your nudge with small changes based on what worked best in your trial. For example, in a nudge involving messaging, take another look at the messages you found to have the greatest impact and consider ways to make them even better, or make them more effective among different gender and cultural groups. Then test your nudge again.
- Roll out your nudge more widely across campus. What resources and further support might you need?

Or reassess: Perhaps your nudge didn't work as you thought it would. This often happens the first time you trial something. Implementing an effective nudge is an ongoing process, which can take more than one round of designing and testing. What did you learn from your trial that you could apply as you go forward?

- Did you run into any logistical issues that limited your nudge? For example, perhaps you were not able to hold as many repair café events as you had intended.
- Did people not pay attention to your nudge? For example, perhaps you held many repair café events but attendance was low. If so, can you get feedback from your target audience that might tell you why?



CHECKLIST FOR SUCCESSFUL NUDGES

1. Choose your target behaviour

- What is the specific target behaviour you want to change?
e.g. reducing red meat consumption on campus
- Who is your specific target audience?
e.g. first-year students

2. Understand your context

- What individual influences on behaviour might be barriers or drivers?
e.g. students lack cooking skills and experience planning grocery shopping
- What social influences on behaviour might be barriers or drivers?
e.g. social norms of eating meat
- What material influences on behaviour might be barriers or drivers?
e.g. contract with catering company
- What are the touchpoints where you could intervene to change behaviour?
e.g. campus cafeterias

3. Design your nudge

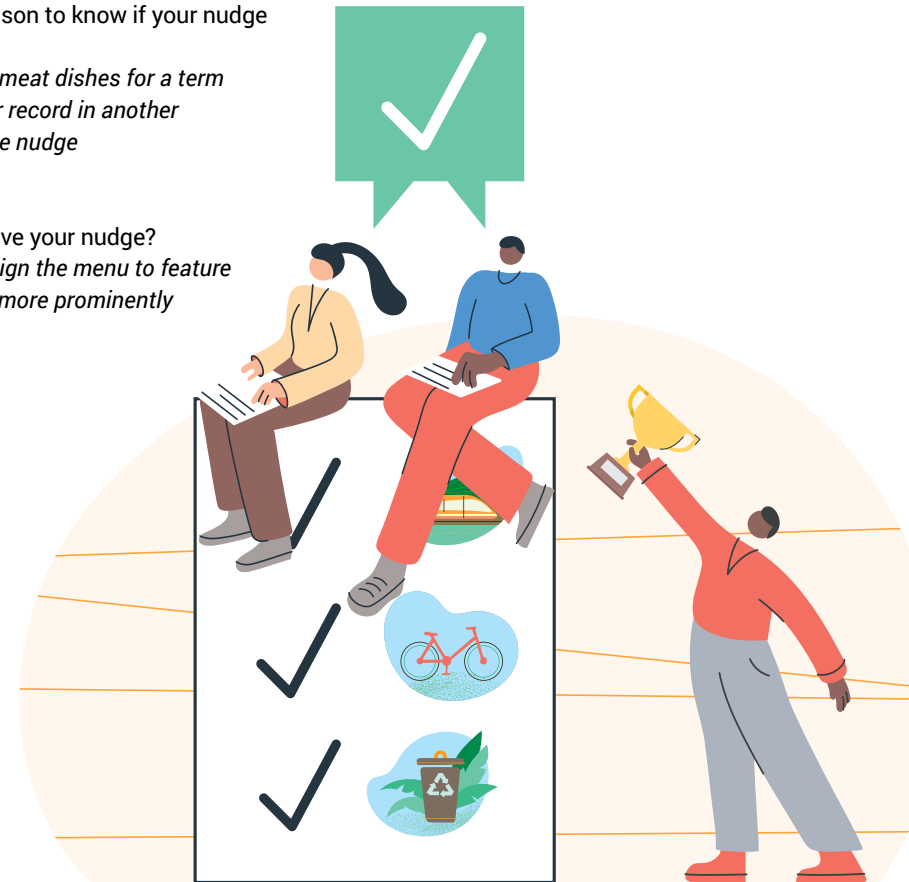
- What is your nudge?
e.g. change descriptions of food on menus
- What resources will you need?
e.g. time and creativity to brainstorm new menu descriptions (no cost for printing menus compared to business as usual)
- Whose buy-in do you need in order to implement your nudge?
e.g. campus catering manager

4. Test the effectiveness of your nudge

- What behavioural outcome will you measure?
e.g. number of meat dishes sold per day in cafeteria for the whole term
- What is your comparison to know if your nudge worked?
e.g. record sales of meat dishes for a term before the nudge, or record in another cafeteria without the nudge

5. Reflect and redesign

- How could you improve your nudge?
e.g. next time redesign the menu to feature plant-based dishes more prominently



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RESOURCES AND REFERENCES

Visit unep.org/nudges for more information or to get your campus involved in a nudging campaign.

Further reading

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FEATURED UNIVERSITIES

Aalto University (Finland)
Cyprus University of Technology (Cyprus)
Dalhousie University (Canada)
HEC Paris (France)
Karatina University (Kenya)
Mahidol University (Thailand)
Portland Community College (US)
Technical University of Denmark (Denmark)
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University of Winchester (UK)
Yale University (US)

GREEN NUDGES AT A GLANCE

Here's a simple summary of the EAST subcategories and sample nudges in each one.

MAKE SUSTAINABILITY EASY

- **Use defaults.**
Example: Give guests at catered events the most sustainable food option unless they request otherwise.
- **Remove or add frictions.**
Example: Offer smaller plates and no trays in campus canteens.
- **Change the choice environment.**
Example: Provide fewer car-parking spaces and more bike-parking spaces.

MAKE SUSTAINABILITY ATTRACTIVE

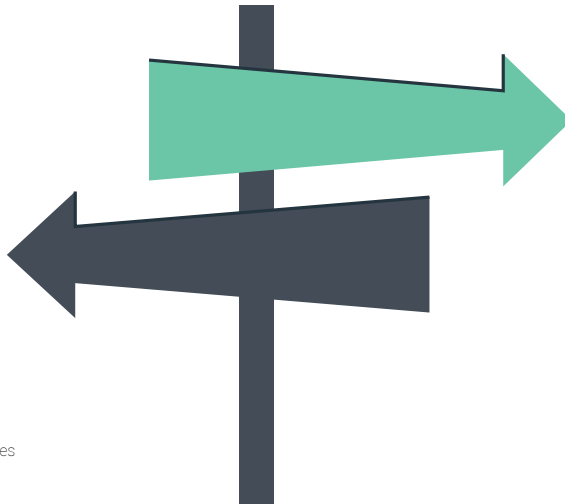
- **Draw attention.**
Example: Design recycling bins to be eye-catching.
- **Frame messages positively and highlight co-benefits.**
Example: Promote sustainable food as tasty and indulgent.
- **Use smart incentives.**
Example: Introduce lottery-based deposit return schemes for recyclable items.

MAKE SUSTAINABILITY SOCIAL

- **Highlight others' sustainable behaviour.**
Example: Compare university departments' energy use to each other.
- **Harness identity and the right messengers.**
Example: Spread messages via people with whom students identify.
- **Use social connections and peer pressure.**
Example: Set up a food-sharing group to distribute leftovers on campus.

MAKE SUSTAINABILITY TIMELY

- **Encourage pre-commitments and emphasize present benefits.**
Example: Provide interest-free loans to help students buy public transport passes.
- **Harness or create timely moments.**
Example: Give first-year students tips for sustainable food shopping.
- **Help people plan and follow through.**
Example: Provide a checklist for reducing water use in student halls.



WHICH GREEN NUDGES WILL YOU USE?

Now it's over to you. You can use the EAST principles not only to design nudges but also to help you follow through with your intentions to implement them. Write down your plans for green nudging, starting by answering the questions on this page.

MY PLANS FOR GREEN NUDGING ON CAMPUS

What I will do:

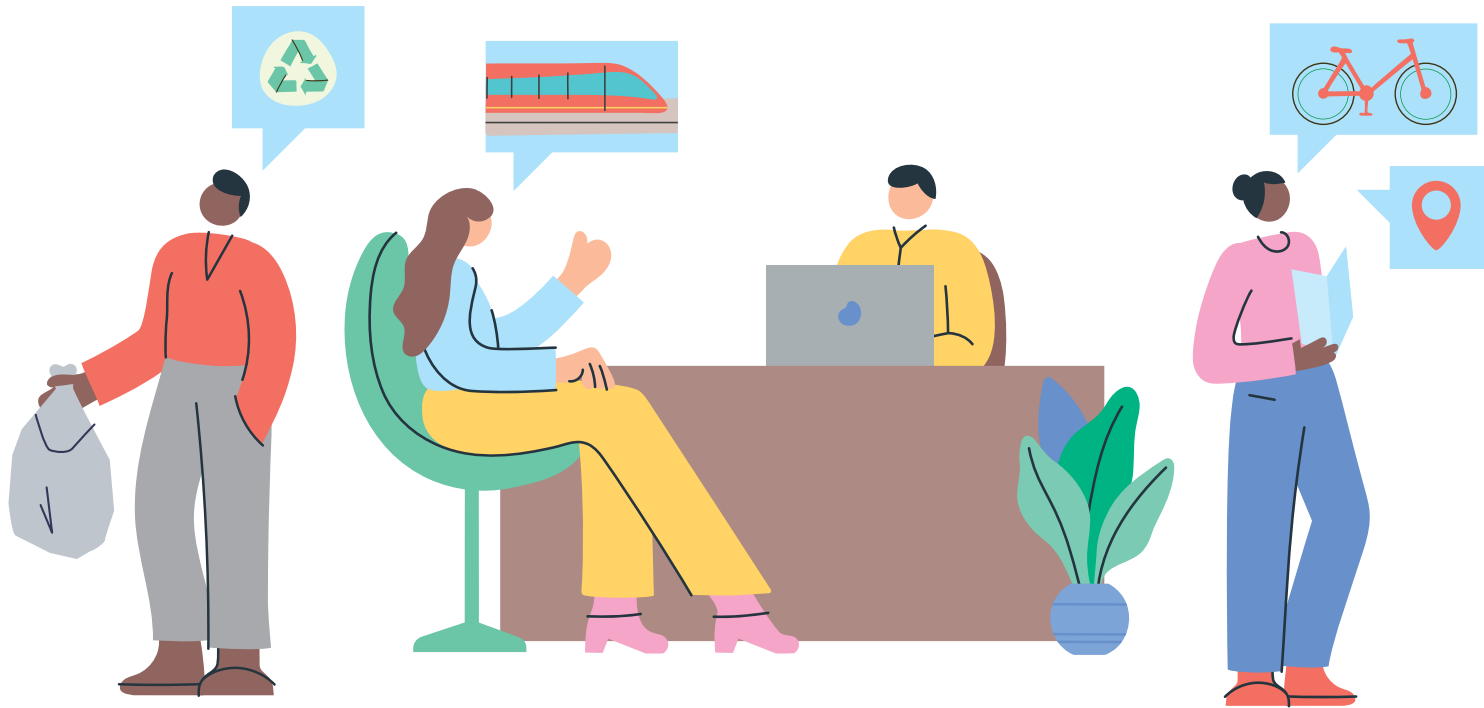
The specific steps I will need to take:

When I will take the first step:

Who I will involve in the process:

What difference I want to make:

To whom I will commit to doing this:



Behavioural science shows that simple “nudges” towards everyday greener decisions can help people develop sustainable habits and live more in line with their environmental values. Nudging can be particularly powerful at higher education institutions. Examples:

- **Eliminate trays in cafeterias to reduce food waste**
- **Use appealing descriptions for plant-based dishes**
- **Make recycling bins eye-catching and easy to use**
- **Provide more spaces for parking bicycles and fewer for parking cars**
- **Set up a group to share leftover food**

***The Little Book of Green Nudges* explains how to implement these and other nudges, and how to create new nudges tailored to your own campus community.**