

Climate Change Behavioural Insights

Final Report

Prepared for: Chitra Nadarajah, Strategic Manager, Climate Change

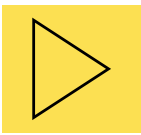


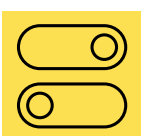

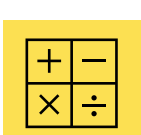

Department: ETE

Prepared by: Jonathan Baker, Laura Baker, Robert Ormerod, Philippa Mellish, Insight and Engagement Unit

Ref: CESIE0043

Version and Date: V1 20/05/2020

Contents page

	Introduction and Methodology – What we did	Slide 3
	Executive Summary – What we discovered	Slide 8
	Summary of Findings – Headline Insights	Slide 12
	Behaviour Change Theory and Climate Change – a Brief Guide	Slide 30
	Areas of Climate Action	Slide 35
	Detailed Quantitative Survey Findings	Slide 132
	Qualitative Focus Group Findings	Slide 155

Introduction - What we did

Purpose of this project

Background

Hampshire County Council, along with many other local authorities, has declared a Climate Emergency and is working with its partners to develop a strategy and action plan to achieve carbon reduction targets. This includes measures to encourage and enable changes in behaviour across the community, with policy and interventions based on robust evidence and behavioural insight. The County Council's Insight and Engagement Unit was tasked with delivering initial research to inform the approach to behaviour change.

The research was designed to support local authorities to work with their partners to reduce carbon consumption through changed behaviours by addressing two key questions:

1. Where do the most significant opportunities lie to reduce carbon consumption through citizen behaviour change?

The research identified the key opportunities for, and barriers to, achieving desired behaviour changes among citizens by exploring people's **capacity**, **opportunity** and **motivation** to change behaviour - and by assessing how much change might be possible, where, with whom (including demographic and Mosaic profiles) and when. An assessment of the carbon impact of desired behaviour changes, together with potential health benefits, was also undertaken.

2. How can behaviours be most effectively influenced to reduce carbon?

The research assessed the evidence of the most effective ways of communicating and ultimately achieving behaviour change.

Citizen actions that were considered in this project

In total we focused on 23 actions related to climate change and resilience:

Sustainable Energy and Water Use



- Use water saving devices
- Avoid unnecessary water usage
- Install insulation
- Choose energy efficient appliances when purchasing or replacing
- Install renewable energy devices in your home
- Change to a green energy tariff*

Sustainable Travel



- Reduce car/taxi use by using active forms of transport
- Reduce car/taxi use by using public transport
- Buy/lease an electric car
- Avoid short haul flights by taking the train instead
- Avoid long haul flights by choosing not to travel internationally
- Avoid flights by working from home/conference/video calls
- Avoid local travel by working from home/conference/video calls

Sustainable Diet



- Reduce meat consumption
- Reduce dairy consumption
- Buy local produce to reduce food miles
- Reduce food waste
- Make ethical food choices (e.g. buy Fairtrade, don't buy palm oil etc.)

Sustainable Purchasing and Consumption



- Use reusable alternatives wherever possible
- Correctly recycle materials
- Reduce use of plastics

Resilience to Climate Change



- Modify my home to be more resilient to heat and drought
- Modify my house to be more resilient to storms and flooding

* - By Green energy tariff we mean one that is supplied directly by renewable energy not via certificate (REGO)

What we did - methodology

Desk Research

REVIEW of existing national and local evidence on:

- behavioural factors (capacity, opportunity, and motivation) relating to the specific areas of focus
- effective practice in behavioural interventions to reduce carbon. This related to general approaches and specific areas of focus

Carbon Calculator

ASSESSMENT of the carbon impact of a range of specific behavioural changes

Conducted by the University of Southampton

Qualitative focus groups

UNDERSTANDING of how best to target behaviour change, barriers and motivations in a qualitative setting

Online survey

QUANTIFY who is willing to take different climate actions, quantify barriers and motivations and understand who it is best to target to change behaviour

Analysis conducted by Insight and Engagement Unit.

Statistical analysis conducted by the University of Southampton

CONDUCTED in March 2020

CREATED in April 2020

CONDUCTED in February and March 2020

CONDUCTED in April 2020

What does this tell us?

What behaviour change evidence already exists

What does this tell us?

How much carbon (CO² equivalent) can each climate change action save

What does this tell us?

What is the best way to communicate to people about climate behaviours

What does this tell us?

How many people are willing to take each climate action

Carbon calculator – methodology for carbon reduction numbers

The impact of actions on reducing carbon (the carbon calculation) was conducted by Aleksandra Nazeraj, PhD Candidate at the Department of Economics, University of Southampton and overseen by Yaryna Basystyuk, Senior Policy & Communications Officer at Public Policy|Southampton. Calculation units are kgCO² equivalent for individual actions.

Findings came from reputable sources, namely:

- DEFRA/BEIS
- Academic journals
- Energy Saving Trust

UNIVERSITY OF
Southampton

We applied the research to find out the carbon savings from conducting 18 specific actions (out of the 23 actions*)

We applied reasonable assumptions based on current behavioural data from reputable sources, namely:

- Government national statistical surveys
- Industry body estimates
- Sales data and prevalence of behaviours

Example of output:

kgCO² emissions per km of using a petrol, diesel car, plug in and battery electric car.

Example of output:

Buy/lease an electric car

Research was carried out into current use of petrol vs diesel and plug-in vs battery electric. Research was carried out to find out the average annual distance travelled per person per year by car.

The difference in kgCO²e emissions per year for petrol/diesel cars and plug-in/battery electric cars was calculated.

What we discovered – Executive Summary

Overall summary

Climate Change Behavioural Action Plan

1

Install renewable energy
Opportunity Size
(millions of kg CO2 annually)
1690
Ease of Behaviour change: Low
Level of influence: Medium

2

Change to a green energy tariff
Opportunity Size
(millions of kg CO2 annually)
1303
Ease of Behaviour change: High
Level of influence: Medium

3

Buy/lease an electric car
Opportunity Size
(millions of kg CO2 annually)
637
Ease of Behaviour change: Low
Level of influence: Medium

4

Avoid flights by working from home
Opportunity Size
(millions of kg CO2 annually)
373
Ease of Behaviour change: Low
Level of influence: Medium

5

Install insulation
Opportunity Size
(millions of kg CO2 annually)
321
Ease of Behaviour change: Low
Level of influence: Medium

6

Avoid flights by taking the train
Opportunity Size
(millions of kg CO2 annually)
152
Ease of Behaviour change: Low
Level of influence: Medium

7

Reduce food waste
Opportunity Size
(millions of kg CO2 annually)
136
Ease of Behaviour change: Medium
Level of influence: Medium

8

Avoid international flights
Opportunity Size
(millions of kg CO2 annually)
101
Ease of Behaviour change: Low
Level of influence: Medium

9

Reduce meat consumption
Opportunity Size
(millions of kg CO2 annually)
84
Ease of Behaviour change: High
Level of influence: Medium

10

Use water saving devices
Opportunity Size
(millions of kg CO2 annually)
80
Ease of Behaviour change: Medium
Level of influence: Medium

11

Reduce dairy consumption
Opportunity Size
(millions of kg CO2 annually)
76
Ease of Behaviour change: High
Level of influence: Medium

12

Avoid local travel by working from home
Opportunity Size
(millions of kg CO2 annually)
70
Ease of Behaviour change: High
Level of influence: High

13

Public Transport
Opportunity Size
(millions of kg CO2 annually)
45
Ease of Behaviour change: High
Level of influence: High

14

Choose energy efficient appliances
Opportunity Size
(millions of kg CO2 annually)
31
Ease of Behaviour change: High
Level of influence: Medium

15

Buy locally produced food
Opportunity Size
(millions of kg CO2 annually)
17
Ease of Behaviour change: Medium
Level of influence: Medium

16

Active Transport
Opportunity Size
(millions of kg CO2 annually)
16
Ease of Behaviour change: High
Level of influence: High

17

Use less water
Opportunity Size
(millions of kg CO2 annually)
4
Ease of Behaviour change: High
Level of influence: Medium

18

Correctly recycle materials
Opportunity Size
(millions of kg CO2 annually)
3
Ease of Behaviour change: Medium
Level of influence: Medium

19

Make ethical food choices
Ease of Behaviour change: Medium
Level of influence: Medium

20

Reduce use of plastics
Ease of Behaviour change: High
Level of influence: Medium

21

Modify my home
to be more resilient to heat and drought
Ease of Behaviour change: Low
Level of influence: Medium

22

Modify my house
to be more resilient to storms and flooding
Ease of Behaviour change: Low
Level of influence: Medium

23

Use reusable alternatives
Ease of Behaviour change: High
Level of influence: Medium

Executive summary – headline findings 1/2



Home energy and travel dominate the opportunities for citizen action to save carbon



Installing renewable energy devices (solar, heat pumps) is both the biggest opportunity for citizen carbon saving and the single most impactful individual action to take



Willingness to take carbon reducing activities clusters in three broad areas – home, travel and food, and resources. Willingness to take one action in these areas often means willingness to take another



Leading with an environmental message is rarely the best way to communicate climate change actions but it should be used as a secondary tactic. Money and ease are stronger primary messages

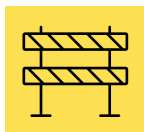


COVID-19 has provided a potentially short window to help address issues related to travel (particularly working from home) and food (particularly food waste)

Executive summary – headline findings 2/2

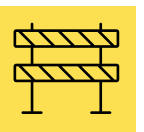


People are willing to change and know it is the right thing to do, but they must overcome a number of internal and external barriers. Approaches to addressing climate change must work past these barriers



Barriers that limit individual action are lack of:

- Physical or psychological capacity e.g. financial, time or knowledge constraints
- Motivation e.g. unhelpful habits or conflicting motivations
- Opportunity in individual environments e.g. possibility to do action or conflicting social norms



The following approaches can help overcome these barriers:

- An additive approach e.g. 'every little helps' could work for climate change;
- Encourage reflection through point of action communications;
- Show consistent, visible leadership;
- Make doing the right thing more visible – it's not easy to see the people who didn't use carbon;
- Make it clear how much each action contributes;
- Create clear shared goals – people will change a lot if they agree.

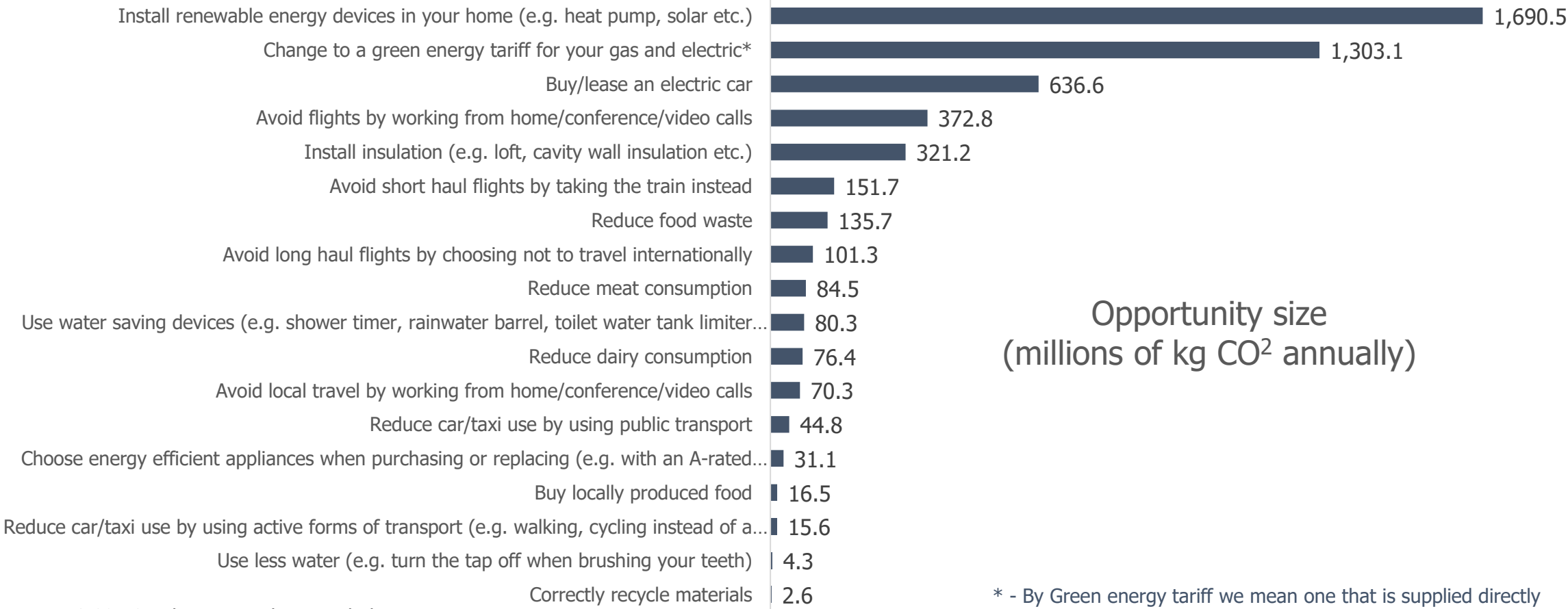


Information is needed to overcome lack of knowledge of carbon impacts for some actions, notably dairy and meat consumption

Summary of findings – Headline insights

Installing renewable energy devices is the largest CO² saving opportunity

Below is a representation of the carbon opportunity size (% of the Hampshire population willing to take an action multiplied by the amount of carbon saved for doing the action) in millions of kg of CO² equivalent annually



Opportunity size
(millions of kg CO² annually)

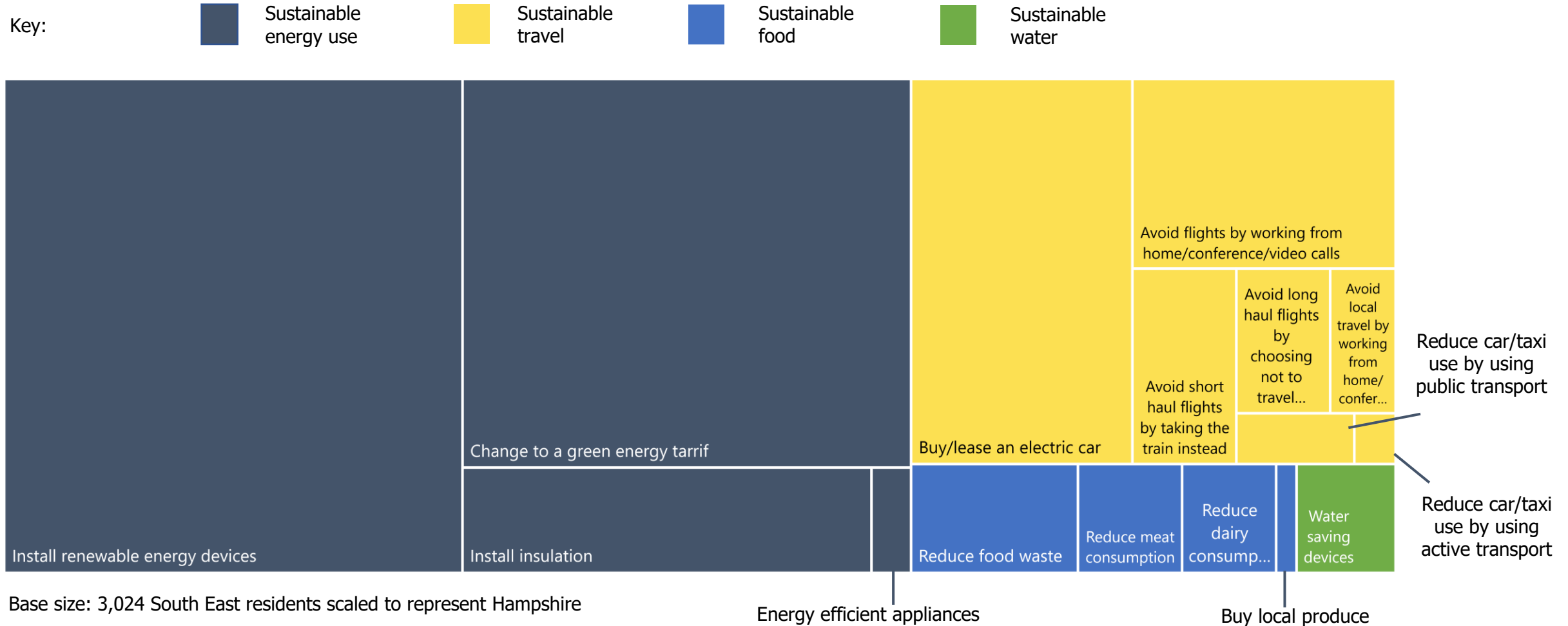
Base size: 3,024 South East residents scaled to represent Hampshire

* - By Green energy tariff we mean one that is supplied directly by renewable energy not via certificate (REGO)

Key takeout – Home energy (renewable energy devices and green energy tariffs) is the largest opportunities to save carbon

People are most willing to save on carbon through in-home energy saving measures and changing travel behaviour


Below is a representation of the carbon opportunity size of each action and area of actions (% of the Hampshire population willing to take an action multiplied by the amount of carbon saved for doing the action). Each panel represents the opportunity size of the action



Key takeout – The largest carbon opportunities lie in home energy and travel – these areas will be key to any climate change strategy

Not all actions are carbon equal

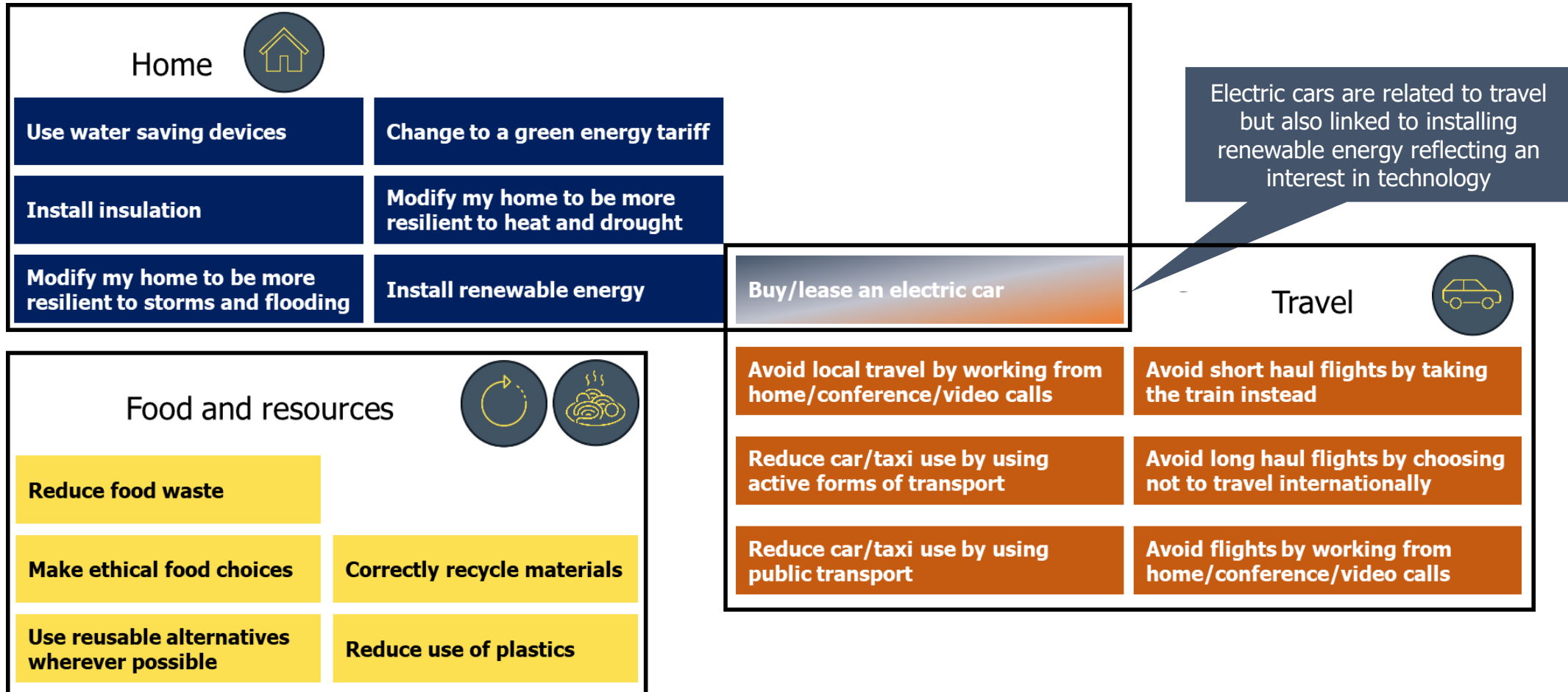
Action	Number of people needed to take the action for the same carbon reduction
Install renewable energy devices in your home (e.g. heat pump, solar etc.)	1
Change to a green energy tariff for your gas and electric	1
Avoid flights by working from home/conference/video calls	2
Install insulation (e.g. loft, cavity wall insulation etc.)	3
Buy/lease an electric car	5
Avoid short haul flights by taking the train instead	9
Avoid long haul flights by choosing not to travel internationally	10
Reduce food waste	12
Reduce meat consumption	16
Reduce dairy consumption	17
Avoid local travel by working from home/conference/video calls	27
Use water saving devices (e.g. shower timer, rainwater barrel, toilet water tank limiter (hippo, brick))	31
Choose energy efficient appliances when purchasing or replacing (e.g. with an A-rated energy label)	34
Reduce car/taxi use by using public transport	68
Reduce car/taxi use by using active forms of transport (e.g. walking, cycling instead of a vehicle)	96
Buy locally produced food	122
Correctly recycle materials	174
Use less water (e.g. turn the tap off when brushing your teeth)	229



Key takeout – Changing behaviours should be measured against relative carbon impact e.g. if an initiative gets 229 times more people to use less water than a similar initiative gets people to install renewable energy- then that is the same value

Climate action willingness links together in clusters

There are three larger clusters of actions (Home, Food and Travel) where being willing to take one makes a person more likely to be willing to do another



Base size: 3,024 South East residents

Key takeout – Targeting people who have taken one action, or are willing to take it, may be a good way to target them for another related action

Each climate action has a closely related action

Many people who are willing to take one action are likely to be willing to take another, similar action. Duplicate combinations are not shown

Action	Willingness to do action(1=completely related 0 = not at all related)	Action it is most associated with
Avoid flights by working from home/conference/video calls	0.48	Avoid local travel by working from home/conference/video calls
Modify my home to be more resilient to storms and flooding	0.46	Modify my home to be more resilient to heat and drought
Modify my home to be more resilient to heat and drought	0.45	Install renewable energy devices in your home
Modify my home to be more resilient to storms and flooding	0.42	Install insulation
Install insulation	0.37	Use water saving devices
Reduce car/taxi use by using active forms of transport	0.36	Reduce car/taxi use by using public transport
Install renewable energy devices in your home	0.33	Buy/lease an electric car
Reduce use of plastics	0.32	Use reusable alternatives wherever possible
Use reusable alternatives wherever possible	0.32	Reduce use of plastics
Install insulation	0.31	Change to a green energy tariff for your gas and electric
Reduce use of plastics	0.31	Reduce food waste
Reduce meat consumption	0.29	Reduce dairy consumption
Reduce food waste	0.28	Correctly recycle materials
Make ethical food choices	0.28	Buy locally produced food
Buy locally produced food	0.28	Make ethical food choices
Reduce food waste	0.27	Use less water
Avoid short haul flights by taking the train instead	0.26	Avoid long haul flights by choosing not to travel internationally
Reduce use of plastics	0.21	Choose energy efficient appliances when purchasing or replacing

Base size: 3,024 South East residents

Key takeout – Identifying people willing to take certain climate change actions means you can reasonably assume they would be willing to take related ones e.g. buyers of electric cars would be interested in installing home renewable energy

Finance, and making actions easier, were the dominant ways to gain attention

From our focus groups (26 participants), those who were willing to undertake an action were asked to quickly (and with little time for reflection) place each action into a bucket with labels reflecting the best way to communicate this issue to them e.g. by addressing the health benefits, money or the environment

	Best approach/es to communicating action		
Green Energy tariff	Finance		
Renewable energy	Finance		
Water saving devices	Finance	Make it easier	
Buy/lease an electric car	Finance	Make it easier	
Ethical food choices	Finance	Make it easier	Health
Adapting home for hot weather	Finance		
Energy efficient appliances	Finance	Environment	Make it easier
Eat local	Make it easier	Environment	Finance
Avoid flying by taking the train	Finance		
Taking public transport	Make it easier		
Reduce meat and dairy	Health		

Source: Focus Groups

COVID-19 is making 1 in 3 people think and act differently on climate change

The open-ended question was as follows:

Thinking generally about the answers you provided in this survey. In which, if any, ways would you say the current public health situation (i.e. the outbreak of Covid-19 (Coronavirus)) causes you to think differently about any of the answers you provided?

- COVID-19 has not made me think differently about my actions
- COVID-19 has encouraged me to undertake more environmentally friendly behaviours
- COVID-19 has encouraged me to undertake more environmentally unfriendly behaviours



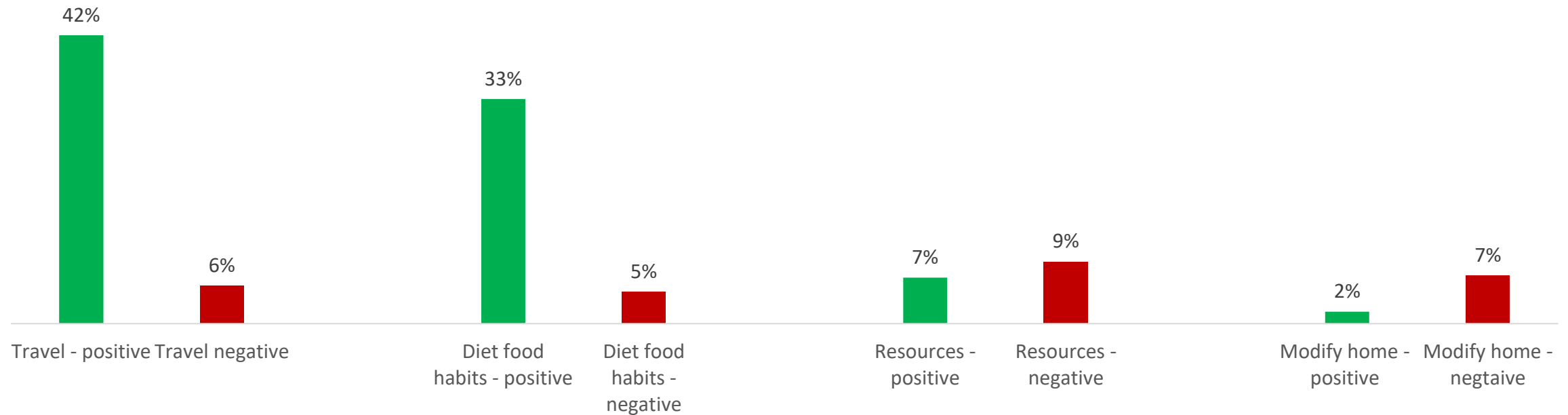
Base size: 3024

As we are interested in understanding what behaviours are particularly relevant and salient at this time, we will be looking into more detail at **34% who have reported that Coronavirus has changed their behaviour**

Base size: 3,024 South East residents

People were most likely to think differently about travel behaviour due to COVID-19

People had mentioned many positives involving travel and diet whereas resources and their willingness and ability to modify their home were more mixed.



Base size: 985

Key takeout – Behaviour has changed in a number of areas, particularly travel and diet – this presents a potential opportunity to encourage or reinforce behaviours that are positive for climate action

Willingness to change exists but must overcome practical and psychological barriers

People are willing to change and know it is the right thing to do

But they must overcome a number of internal and external barriers

Limits to taking actions

**Other motivations
overriding climate change**

**National and local
government support**

**Lack of knowledge /
wrong information**

Approaches to addressing climate change through citizen action must understand and work past these barriers

Overcoming barriers is about framing the challenge in the right way 1/2

An additive approach e.g. 'every little helps' could work for climate change

Addresses which barriers?

- People using one good act to justify a bad one
- People don't know the carbon impacts of their actions
- They should be nudging me to make the right choice
- Focus on achievable steps

Encourage reflection through point of action communications

Addresses which barriers?

- Environmental issues are not clear cut and citizens don't know what to do
- Some people are interested in the issues and have tried to research but are still not clear
- Consequences of consumption are hard to see at point of use
- They should be nudging me to make the right choice

Show consistent, visible leadership

Addresses which barriers?

- Someone else can change
- Governments should be investing

Where has this principle been used?






Where has this principle been used?



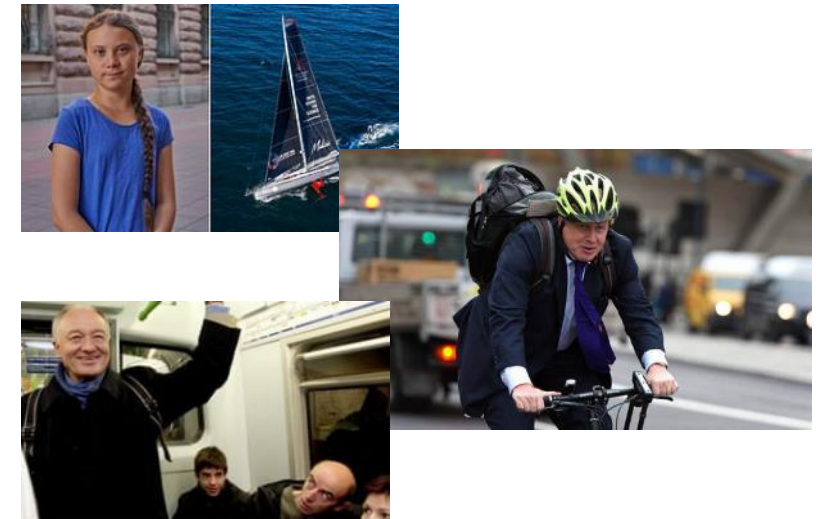
Energy Efficiency Rating	Current	Potential
Very energy efficient - lower running costs		
(92-100) A		
(81-91) B		
(69-80) C		
(55-68) D		
(39-54) E		
(21-38) F		
(1-20) G		
Not energy efficient - higher running costs		
England, Scotland & Wales	EU Directive 2002/91/EC	

Fixed rate contract 12 Months

clusive Early exit fee £30.00 per fuel

- Comparison site exclusive
- Green plan

Where has this principle been used?



Overcoming barriers is about framing the challenge in the right way 2/2

Make 'doing the right thing' more visible – its not easy to see the people who didn't drive/fly

Addresses which barriers?

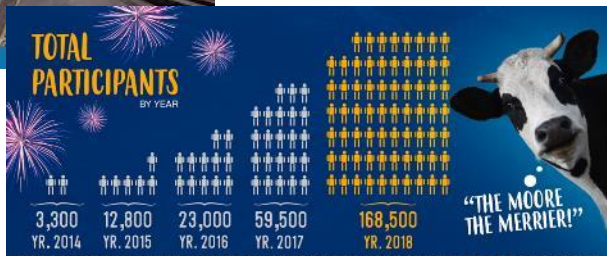
- People justify a self-serving conclusion
- They should be nudging me to make the right choice
- Focus not on what we are losing by using low carbon alternatives but what we gain
- Focus on achievable steps

Where has this principle been used?

Flight shame/Train pride campaign in Sweden



Showing how many people participate



Make it clear how much each action contributes

Addresses which barriers?

- People justify a self-serving conclusion
- Consequences of consumption are hard to see at point of use
- They should be nudging me to make the right choice
- Environmental issues are not clear cut and citizens don't know what to do

Where has this principle been used?

Item	Points
Chicken Bowl	12
Chicken/Vegete Bowl	10
Beef Bowl	12
Beef/Vegete Bowl	10
Half of Bowl	12
Works Bowl	12
White Meat Chicken Plate	10
Chicken Plate	10
Chicken/Vegete Plate	8
Beef Plate	12
Beef/Vegete Plate	10
Half of Plate	11
Works Plate	10
Mini Chicken Bowl	7
Mini Beef Bowl	7
Mini Half of Bowl	7
Chicken Plate	17
Beef Plate	17
Chicken/Beef Plate	17
Ris Plate	14
Works Plate	16

Points system showing how one action contributes to a target or limit



Create clear shared goals – people will change a lot if they agree

Addresses which barriers?

- Environmental issues are not clear cut and citizens don't know what to do
- An ability to discuss, agree goals and commit to change could lead to more behaviour change

Where has this principle been used?



Juries – people aim to seriously assess evidence and come to a conclusion with high stakes for the people involved

Information is needed to overcome lack of knowledge of carbon impacts

Looking at all actions we could see differences of those saying they would not do the action and then giving the reasons they do not believe it would make a difference – we listed these to show which actions are most in need of information to change these views.

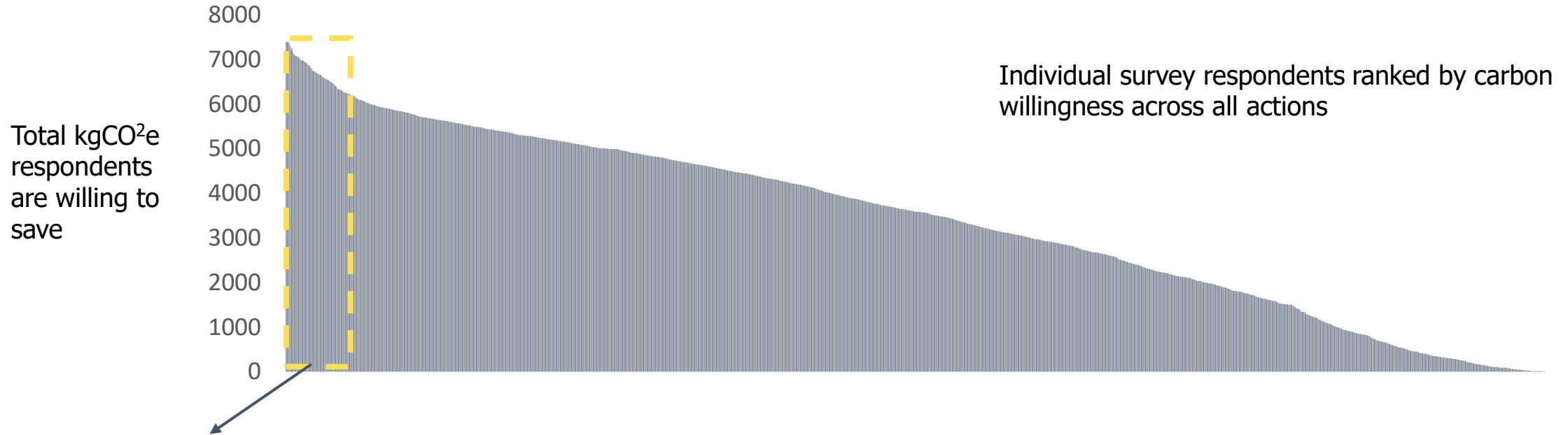
Action	% people unwilling & saying they do not believe action will make a difference
Reduce dairy consumption	19%
Reduce meat consumption	16%
Avoid flights by working from home/conference/video calls	9%
Buy/lease an electric car	9%
Avoid long haul flights by choosing not to travel internationally	7%
Avoid local travel by working from home/conference/video calls	6%
Avoid short haul flights by taking the train instead	6%
Change to a green energy tariff for your gas and electric	6%
Make ethical food choices (e.g. buy Fairtrade, don't buy palm oil etc.)	5%
Reduce car/taxi use by using public transport	5%
Use water saving devices	5%
Install renewable energy devices in your home	3%
Reduce car/taxi use by using active forms of transport	3%
Buy locally produced food	2%
Install insulation	2%
Reduce use of plastics	2%
Use less water	2%
Choose energy efficient appliances when purchasing or replacing	1%
Correctly recycle materials	1%
Reduce food waste	1%
Use reusable alternatives wherever possible	1%

Base size: 3,024 South East residents

Key takeout – There is a significant proportion of people who may act differently if they become convinced of the carbon impact of meat and dairy and even electric cars. At the least this should not be a defense not to take action

Younger, higher social grade people are the biggest opportunity targets

Profiling those who are willing to save the most carbon



Top 200 respondents by willingness to save carbon are more likely to be male, 25-44, ABC1 social grade* (using standard demographic groups based on occupation) and in Mosaic group G - Domestic Success

Base size: 3,024 South East residents

*Social grade explanation: <http://www.nrs.co.uk/nrs-print/lifestyle-and-classification-data/social-grade/>

Key takeout – Successful large-scale carbon reduction must take in those who are willing to do the most

Recommendations 1/2

Many different actions could result from the findings of this research. We have submitted the below as a shortlist of actions that are supported by the evidence in this report.



Short term - COVID-19 has opened up two distinct areas of opportunity – increased working from home and improved food waste behaviours – existing budgets and even new investment for these priorities should be prioritised in setting new, better behaviours before lockdown fully ends and habits revert to old ways, or to a new normal that is not as positive as it could be.



An overarching 'points' system that encourages people to take a step up the ladder of carbon saving could encourage people to understand and stretch themselves when saving carbon. This approach may work best with the willing but underinformed.



Creating communal agreement on climate goals will make people more receptive to communications – this would be hard to establish but could make people and communities easier to mobilise. COVID-19 has demonstrated that people will take extraordinary actions if they believe it is necessary.



Largest opportunity – any climate change strategy that does not address home energy (insulation/Green energy tariff or renewable energy devices) will not capture the biggest opportunity. The size of opportunity justifies harder work, or more budget, to find the best possible route to get people to reduce their home energy use.

Recommendations 1/2

Many different actions could result from the findings of this research. We have submitted the below as a shortlist of actions that are supported by the evidence in this report.



In the longer term, soften resistance on actions that save larger amounts of carbon but are not perceived to do so by consistent information messaging. This applies most strongly to reducing meat and dairy consumption, business meeting flights and (to a lesser extent as the car industry is likely to assist) electric cars.



Finance is a key way in to gain interest but environment is a motivator. One possible strategy would be to encourage/nudge/subsidise home insulation in return for a promise to use the savings to take out green tariffs. The customer pays no money but makes a double CO² saving – lower energy use and greener supply.



This report contains targeting information including demographic groups more likely to be willing to take an action, as well as actions that are closely linked. We recommend deploying this information and testing it to make sure that budgets are maximised by connecting with those willing to act.

Descriptive statistics of climate change action

10

Average number of actions each citizen is willing to take

229

Number of people that would have to carry out the least effective carbon reducing activity (use less water) to equal 1 person carrying out the most carbon effective action (install renewable energy at home)

Install renewable energy devices in your home

The carbon saving action that would make the biggest difference for a citizen action

78% ->
20%

Range of willingness from top action (eat local food 78%) to the bottom (correctly recycle materials (20%))

3359 kg CO²
equivalent

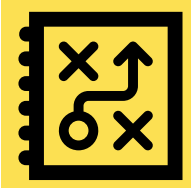
Amount of carbon saving the average citizen is willing to consider each year

Buy locally produced food

Action that the highest number of people expect to take in the next 12 months

How to use or adapt this information for your district

We hope the findings in this report are useful and they should be meaningful for many different local areas or authorities. It is possible to closely adapt findings to smaller areas (Cities or local authorities) to make it more representative. We anticipate partners using this research in a number of ways



Use the general findings to create communications and marketing strategies



Adapt the data to for you locality – the data is a rich source of information and could be weighted (transformed) to match your population – please get in touch if this is of interest



We recommend testing and confirming that the approaches described are effective – we would welcome any collaboration or results of activities so that best practice can be established

For more information please contact insight@hants.gov.uk

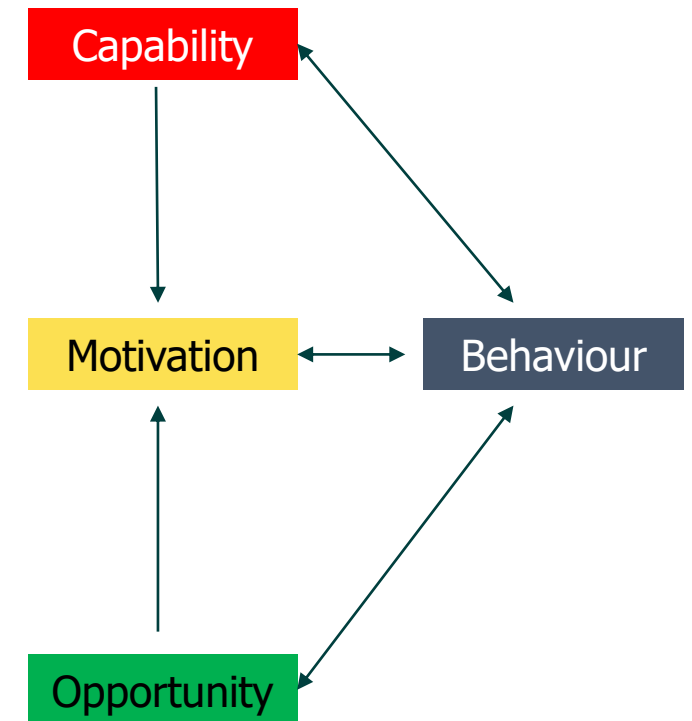
Behaviour change theory and Climate Change – a brief guide

Capacity, Opportunity, Motivation - Behaviour model (COM-B)

Behaviour change occurs as a result of interaction between three necessary determinants: capabilities, opportunities and motivation

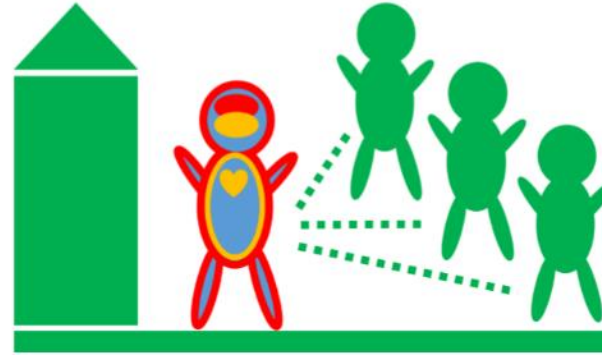
How does this relate to individual action on climate change?

Physical capability to engage in an activity	e.g. affordability of vegetarian alternatives
Psychological capability to engage in an activity, including knowledge and skills	e.g. knowledge of relationship between meat eating and climate change, knowledge and skills to cook vegetarian food
Reflective motivation i.e. conscious decision making – their plans, intentions, beliefs, identity	e.g. meal plan to reduce meat consumption, belief that individual meat reduction will make a difference to tackle climate change
Automatic motivation i.e. unconscious decision making – their emotions, habits and impulses	e.g. going to the meat section in supermarket is habitual, association of vegetarian cooking with poor nutrition
Physical opportunity	e.g. having vegetarian options readily available, prompted in the supermarket about environmental impact of buying meat
Social opportunity	e.g. it is the social norm to eat vegetarian if your friends and family do this, famous chefs endorsing vegetarian cooking



Influences of behaviour: COM-B model

The picture is a visual representation of the interaction between capabilities, opportunities and motivations that determine behaviour and thereby affect outcomes.



Changed Determinants



Changed behaviour: e.g. eating less meat



Changed Outcomes: e.g. improved health, reduced carbon footprint

Capability: the psychological capacity of our brain and the physical capacity of our body to conduct a behaviour

Motivation: the factors affecting our automatic/conscious and reflective/unconscious decisions

Opportunity: presented by our external physical and social surroundings



Barriers to address in changing behaviours affecting climate change (1)

1. Many choices in human consumption are unconscious

Motivation

- Human cognition has two parallel processes
 - Automatic: Decisions are made rapidly and driven by intuitive processes (e.g. habit, social influence, emotion, rules of thumb)
 - Reflective: Decisions are considered and rational
 - Most of our decisions are (necessarily) made automatically, and this can be difficult to change

2. Behaviour is distinct from attitudes, values and intentions

Motivation

- While individuals generally say they are concerned about the environment, their good intentions do not always translate into pro-environmental behaviours. This is known as the **value-action gap**. Attitudes can lead us to adopt the easiest behaviours (such as recycling), but it is another matter to significantly compromise our convenience, enjoyment, or profit. People tend to do just enough to avoid guilt and rationalise unsustainable actions through psychological defences, such as:
 - Moral licensing: using one good act to justify the bad e.g. I can take a flight to Spain if I recycle this year
 - Motivated reasoning: reasoning towards a self-serving conclusion e.g. My actions are not significant, I will not be personally impacted by climate change
 - Avoidance: simply not thinking about the issue

3. The consequences of consumption can be hard to see especially at point of decision

Psychological capability

- Energy and water are invisible resources. Even if you do receive information, this is difficult to conceptualise e.g. what does a kwh measure?
- If an individual uses more water or energy today there is no immediate feedback or cost. To exacerbate this issue, individuals disproportionately focus on immediate costs and excessively discount future impacts, a phenomenon known as **present bias**

Barriers to address in changing behaviours affecting climate change (2)

4. Climate change does not seem personally relevant

Psychological capability

- Many individuals believe climate change is a problem for people in other countries thus climate change is an abstract idea from which we are physically distant i.e. **judgmental discounting**.
- People have low **perceived behavioural control**; they don't believe that individual action will change anything – people feel helpless and skeptical

5. Our social context

Social opportunity

- **Social cues** act as a benchmark for individual consumption – this effect is greater than we intuitively realise. Therefore, it can be difficult for us to go against the perceived norm e.g. refusing a plastic straw at a restaurant, taking the bus to work in a community where owning a car is considered a key signifier of success
- Perceived inequality i.e. why should I change if others are not willing?

6. It can be hard to follow through on actions due to physical context

Physical opportunity

- **Choice architecture** steers consumers to non-sustainable choices e.g. energy consumers are often automatically assigned to conventional, rather than renewable energy suppliers, or cost is often the default order presenting energy options.
- **Hassle factors** can explain why even when individuals do clearly prefer the sustainable option, small tasks can prove to be disproportionate barriers to follow-through. Whether they are real (“programming a thermostat is hard”) or just perceived (“programming a thermostat seems hard”) they can prevent actions from happening, even when the benefits are large or intentions are good.

References

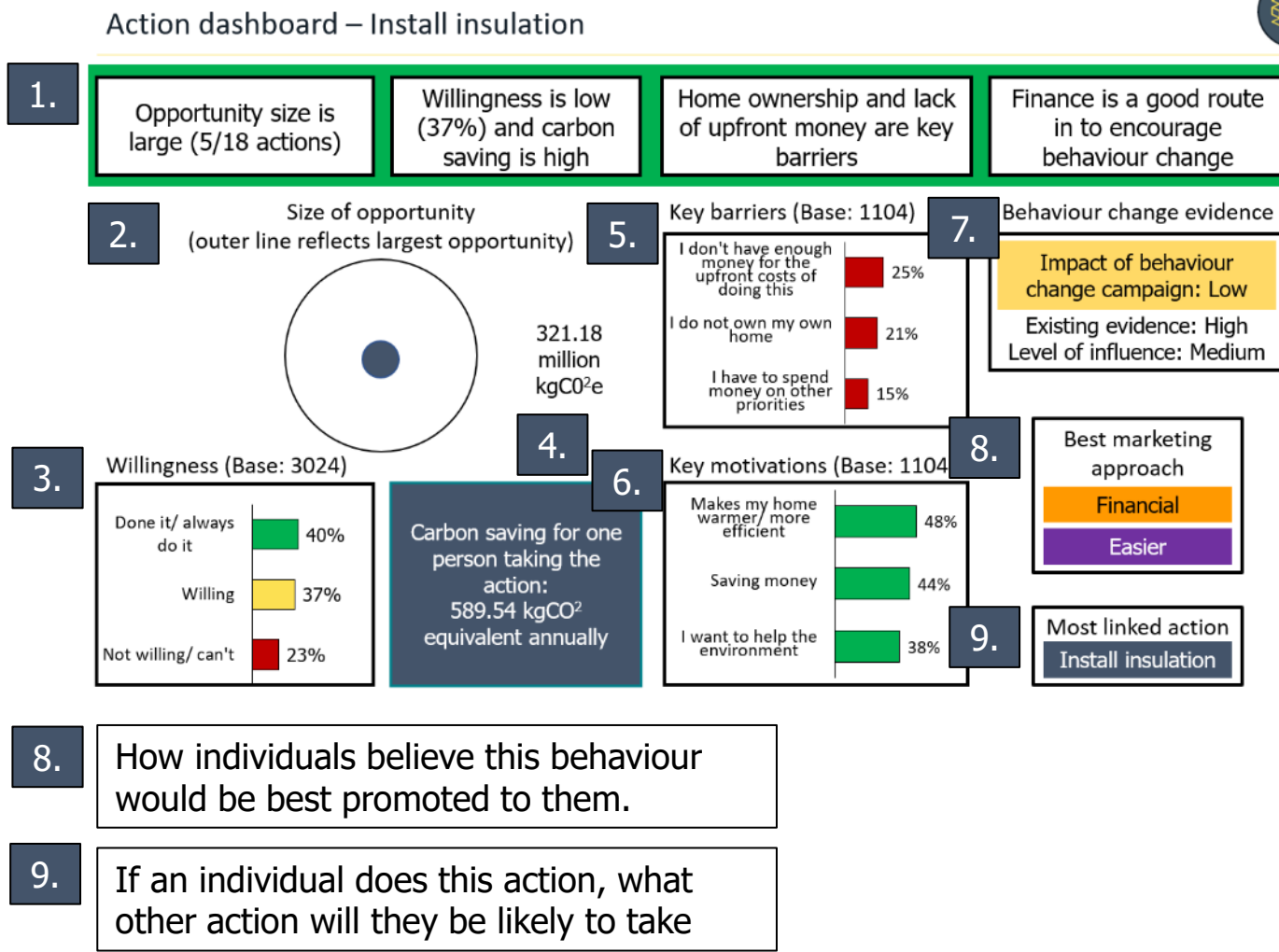
[Consuming differently, consuming sustainably: behavioural insights for policymaking](#) 2017

Gifford, [The Dragons of Inaction: Psychological Barriers That Limit Climate Change Mitigation and Adaptation](#), 2011

Action summaries - Introduction

Guide on how to interpret the action dashboard

1. Key top line findings
2. The opportunity size reflects millions of kg of CO² saved annually if all willing individuals in Hampshire changed their behaviour accordingly
3. Summary of willingness to take action
4. kg of CO² saved per person by taking this action
5. Top 3 barriers identified by individuals willing to undertake this action i.e. what is stopping them from making the change
6. Top 3 motivators identified by individuals willing to undertake this action i.e. what is encouraging them to make the change
7. Summary of behaviour change findings. See ['Guide on how to interpret the desk research \(2\)'](#)



Guide on how to interpret the desk research (1)

Desired behavioural outcome

Install loft and wall insulation and plug gaps to stop drafts

Methods that have effectively promoted behaviour change

What is the most effective practise?

- Remove barriers to insulating home e.g. hassle factors
- Make information on energy saving tangible and personalised
- Provide education alongside insulation to promote higher energy saving

Impact of behaviour change campaign: Low



Existing evidence: High
Level of influence: Medium

Best evidence is presented in a dark blue box. This includes control trials and meta analyses, so findings are likely to be reliable due to high sample sizes

Best evidence – Control trial

- Different leaflets for loft insulation were sent out across 3 boroughs
 - Borough 1: Loft insulation and no loft clearance: £179 (Control)
 - Borough 2: Loft insulation & Loft clearance: £369 – cost price (No hassle factor)
 - Borough 2: Loft insulation & Loft clearance: £450 retail price (No hassle factor)
- While there is some indication that reducing the hassle factor and the price increases the uptake of loft conversions, due to low uptake on the trial, the numbers were too small to provide firm conclusions (UK, 2013)

Case study evidence is presented in the light blue box. Evidence presented in these boxes includes:

Case studies

- Education programmes provided at the same time as the adoption of new technology and one-off modifications can act as a stimulus for changing habitual behaviours. A well-designed study looking at those insulating and draft-proofing their properties showed that significant increases in energy savings were attainable by providing education at such moments of change (16% average gas saving with insulating alone vs. 26% with education included) (USA, 2008)
- When people were given information on how many cracks there were in their home 20% of people weather stripped their windows. But when information was made tangible (i.e. the gap in your house is the size of a basketball) 60% weather stripped. (Unknown, 2013)

- Studies with a small sample size/ no control group
- Resources that use behaviour change principles


Evidence may be useful to see creative ideas but yet to be tested in a control trial

References

Department of Energy and Climate Change, [Removing the hassle factor associated with loft insulation: Results of a behavioural trial](#), September 2013
Department of Energy and Climate Change, [What Works in Changing Energy-Using Behaviours in the Home?](#), November 2012
TED Talks, [Three Myths of Behavior Change - What You Think You Know That You Don't: Jeni Cross](#), March 2013

Note: Best evidence is not necessarily the best thing to do

Pictures are included on some slides to demonstrate what materials have been used to promote behaviour change

Note: Studies in this report have measured **behavioural change** in response to interventions (rather than measuring changes in intentions as a response to interventions). This focus is due to the significance of the '[value-action gap](#)'. 

For areas where there is a lack of research, we have looked at intentions and included a purple warning sign

Guide on how to interpret the desk research (2)

Impact of behaviour change campaign:
Low



Existing evidence: High
Level of influence: Medium

Impact of behaviour change campaign:

High: Intervention will lead to EITHER lots of individuals changing their behaviour slightly OR smaller number of individuals changing their behaviour significantly

Medium: Intervention will lead to EITHER some of individuals changing their behaviour slightly OR smaller number of individuals changing their behaviour slightly

Low: Behaviour is hard to change

Evidence

High: Meta-analyse or systematic review has been conducted

Medium: Control trials have been conducted

Low: Some case study evidence

Level of influence:

Here we are looking at the influence Hampshire County Council has on imposing suggested interventions – whether those be

- Government (i.e. national, local)
- Industry (i.e. businesses)
- Civil society (i.e. campaigners, educators, members of the public)

High: Hampshire County Council can directly influence this behaviour

Medium: Hampshire County Council has influence on bodies that can directly influence behaviour

Low: Hampshire County Council has no influence

Action summaries – Sustainable energy and water use



Area summary: Sustainable energy and water use



Install renewable energy

Opportunity Size
(millions of kg CO2 annually)

1690

Willingness to take action	Ease of Behaviour change	Level of influence
58%	Low	Medium

What evidence suggests you should do...

Financial incentives.



Change to a Green energy tariff

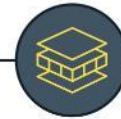
Opportunity Size
(millions of kg CO2 annually)

1303

Willingness to take action	Ease of Behaviour change	Level of influence
59%	High	Medium

What evidence suggests you should do...

Letters to residents from a trusted source. Default green energy tariffs. Encourage social sign up. Make comparison of different energy tariffs easy.



Install isulation

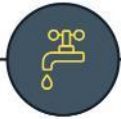
Opportunity Size
(millions of kg CO2 annually)

321

Willingness to take action	Ease of Behaviour change	Level of influence
37%	Low	Medium

What evidence suggests you should do...

Remove barriers i.e. hassle factors
Make information saving tangible and personalised.
Provide education alongside insulation to promote higher energy saving.



Use water saving devices

Opportunity Size
(millions of kg CO2 annually)

80

Willingness to take action	Ease of Behaviour change	Level of influence
61%	Medium	Medium

What evidence suggests you should do...

Real-time feedback with tailored messages.
Use social norms, message framing and choice architecture as secondary tactics.



Choose energy efficient appliances

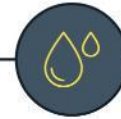
Opportunity Size
(millions of kg CO2 annually)

31

Willingness to take action	Ease of Behaviour change	Level of influence
48%	High	Medium

What evidence suggests you should do...

Point of sale displays.
Financial subsidies.



Use less water

Opportunity Size
(millions of kg CO2 annually)

4

Willingness to take action	Ease of Behaviour change	Level of influence
34%	High	Medium

What evidence suggests you should do...

Incentivise water saving through giving away free devices.



Action dashboard – Install renewable energy devices (e.g. heat pump, solar etc.)

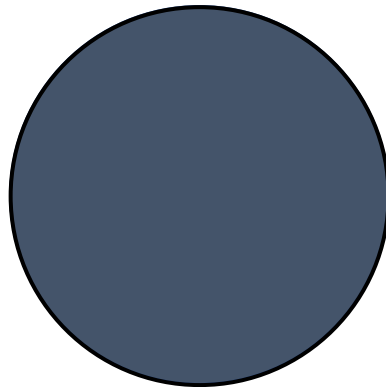
Opportunity size is the largest (1/18 actions)

Willingness is high (58%) and carbon saving is high

A focus on the upfront costs is a barrier – long term saving a motivator

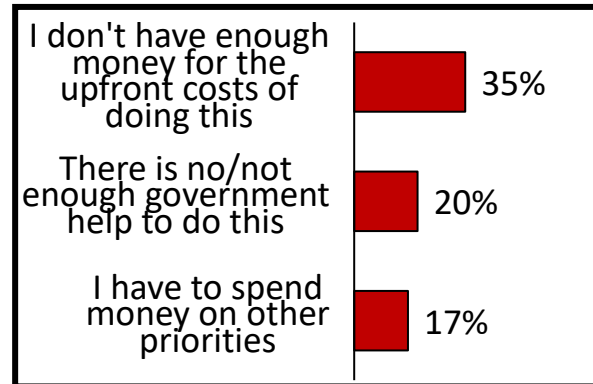
Finance is a good route in to encourage behaviour change

Size of opportunity (outer line reflects largest opportunity)

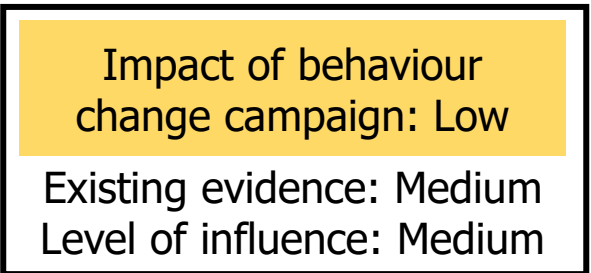


1690.49 million kgCO₂e

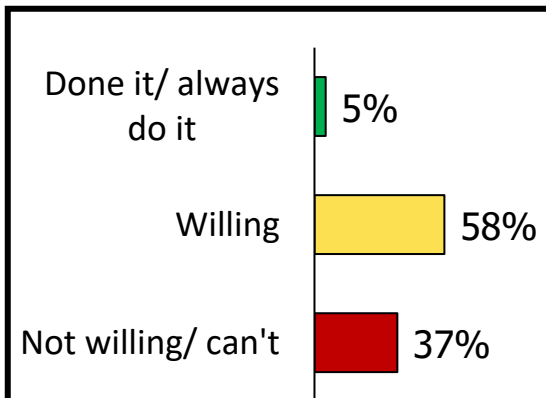
Key barriers (Base: 1759)



Behaviour change evidence

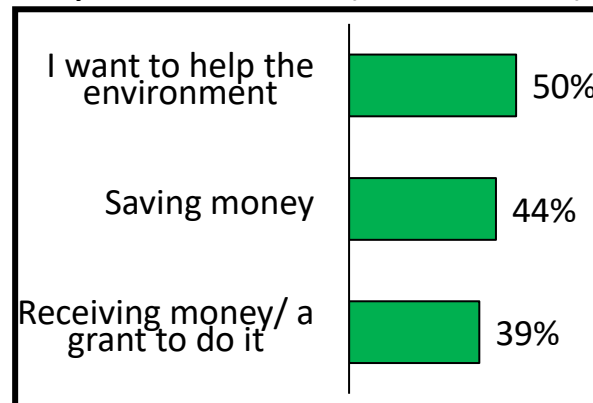


Willingness (Base: 3024)



Carbon saving for one person taking the action: 1979.5 kgCO₂ equivalent annually

Key motivations (Base: 1759)



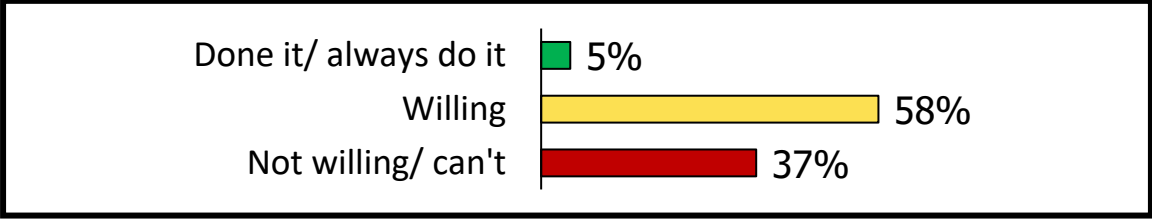
Best marketing approach
Financial

Most linked action
Buy/lease an electric car

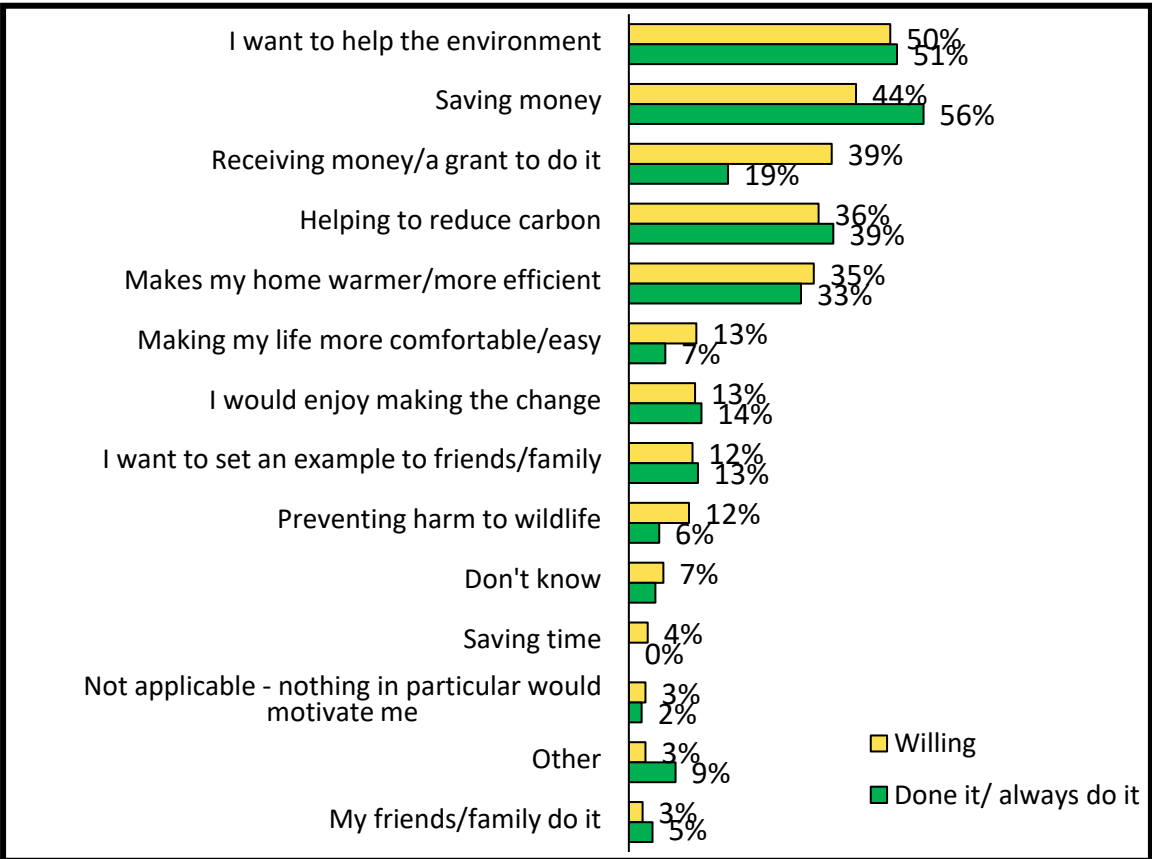


Install renewable energy devices in your home (e.g. heat pump, solar etc.)

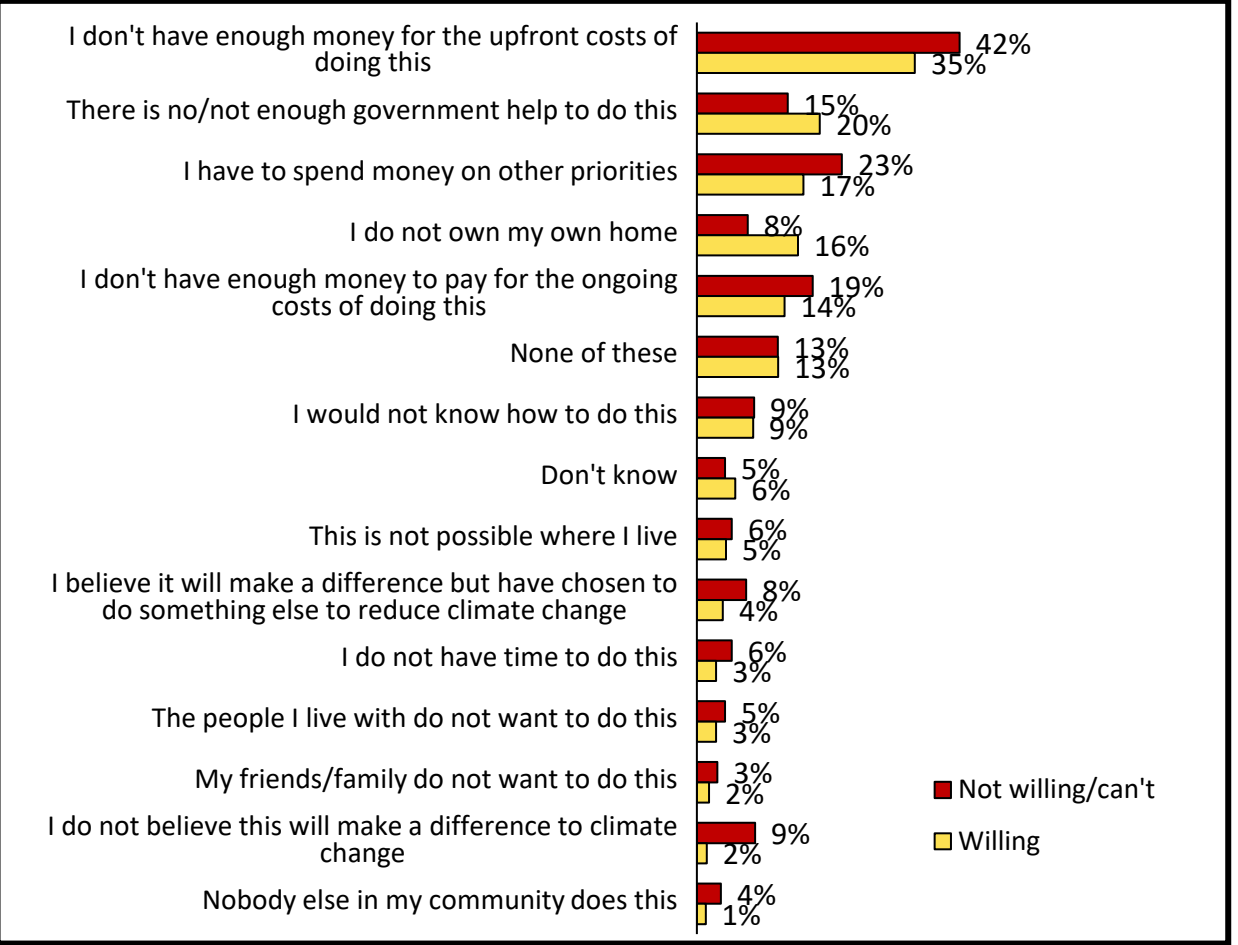
Willingness (Base: 3024)



Key motivations (Base: 1759, 154, multi-choice)



Key barriers (Base: 665, 1759, multi-choice)



Summary/key points

- Saving money is a strong motivator, yet the upfront costs are the biggest barrier

Install renewable energy devices in your home

Impact of behaviour
change campaign:
Low



What is the most effective practise?

- Financial incentives

Existing evidence: Medium
Level of influence: Medium

Best evidence – systematic review

- Financial incentives are an important method to increase citizen investment in renewables. Individuals do not always behave in a 'economically rational' way, therefore considering behavioural, social, institutional and regulatory barriers is essential.
 - Feed in tariff and quotas, grants and tax incentives can be successful in mobilising greater levels of investment from local citizens, but that soft loans tend to be less effective as a stand-alone instrument
 - There may often be a requirement to include specific design features into Feed in Tariffs, quotas, grants, and tax incentives, that will cater to the specific needs of communities
 - Complementary measures are important in addressing non-financial barriers, such as lack of familiarity with the technology, technology immaturity, or low awareness of the incentive programme itself
- Policy review of seven countries leading in photovoltaic generation. The leading nations set out flexible financing, feed in tariffs, incentives, tax exemptions subsidies and active promotion for citizens.

Case study:

- Policy review of seven countries leading in photovoltaic generation. The leading nations set out flexible financing, feed in tariffs, incentives, tax exemptions subsidies and active promotion for citizens.

Curtin, J., McInerney, C., & Gallachóir, B. Ó. (2017). Financial incentives to mobilise local citizens as investors in low-carbon technologies: A systematic literature review. *Renewable and Sustainable Energy Reviews*, 75, 534-547

Moosavian, S. M., Rahim, N. A., Selvaraj, J., & Solangi, K. H. (2013). Energy policy to promote photovoltaic generation. *Renewable and Sustainable Energy Reviews*, 25, 44-58.



Action dashboard – Change to a green energy tariff for your gas and electric

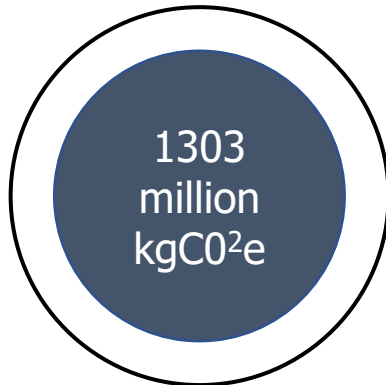
Opportunity size is in the top 5 (2/18 actions)

Willingness is high (59%) and carbon saving is high

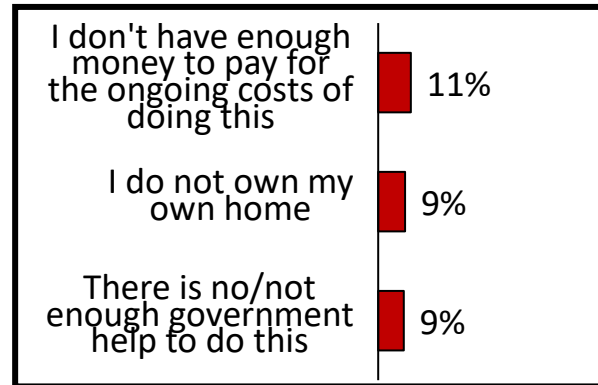
Finance and home ownership are the key barriers

Evidence of behaviour change is strong. Finance is the best route in

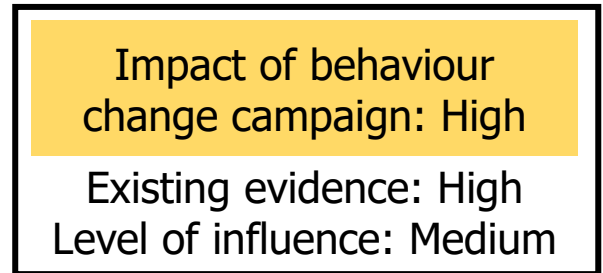
Size of opportunity (outer line reflects largest opportunity)



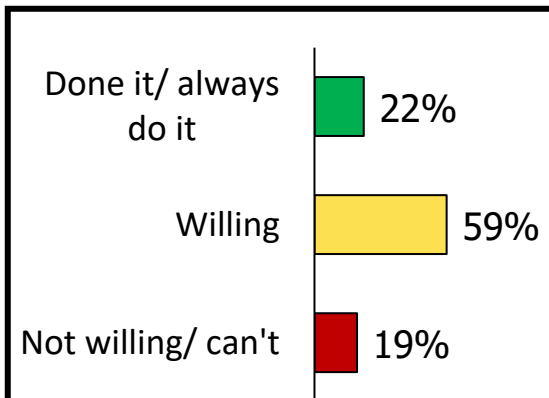
Key barriers (Base: 1775)



Behaviour change evidence

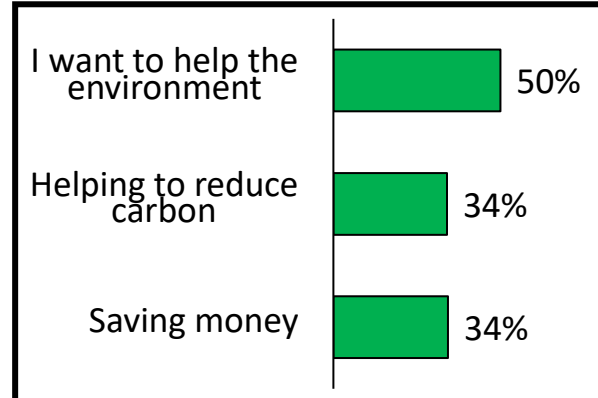


Willingness (Base: 3024)



Carbon saving for one person taking the action: 1500 kgCO₂ equivalent annually

Key motivations (Base: 1775)



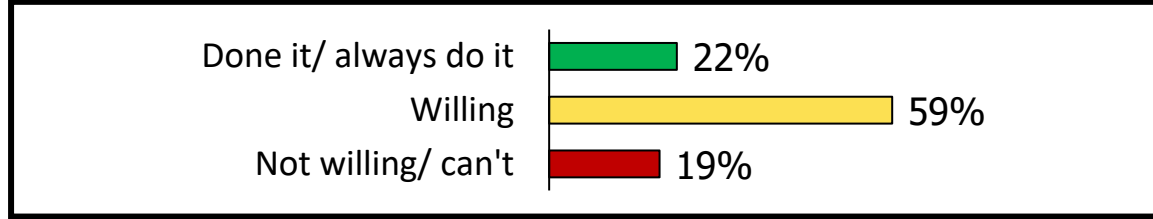
Best marketing approach
Financial

Most linked action
Install insulation

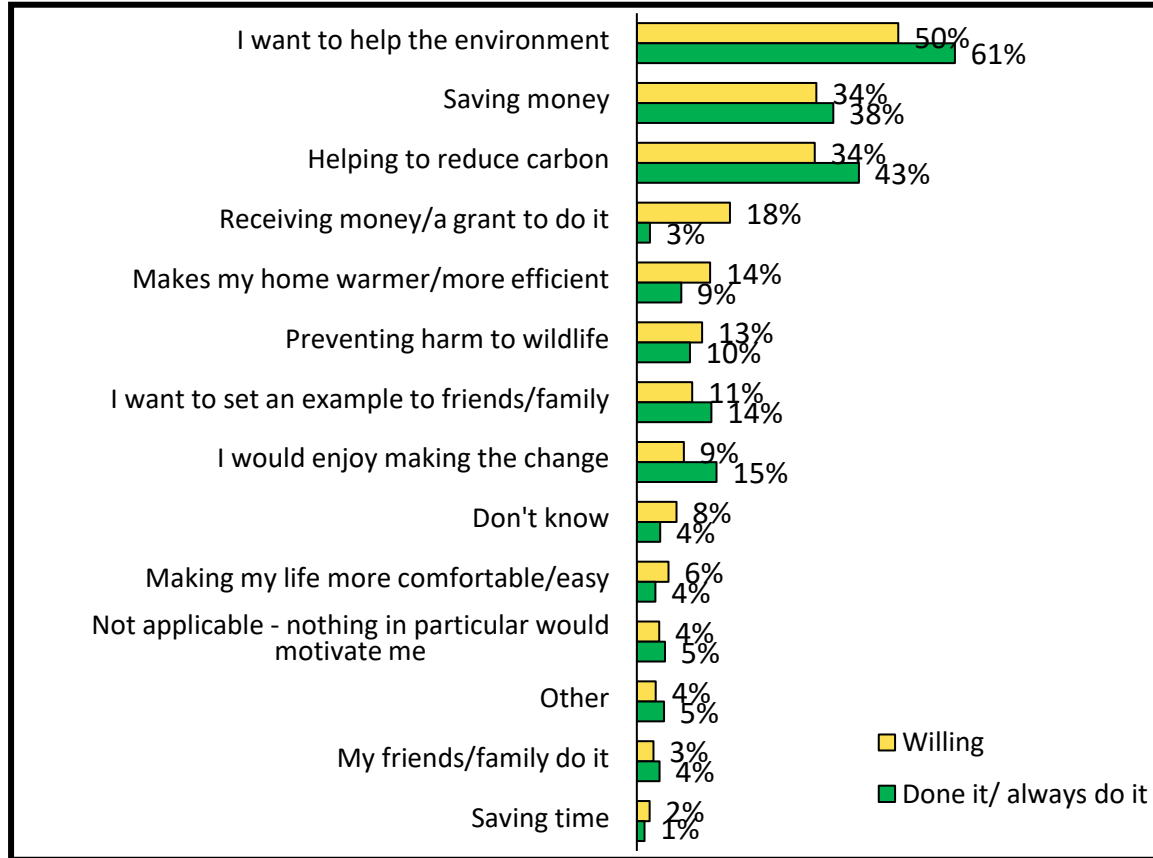


Change to a green energy tariff for your gas and electric

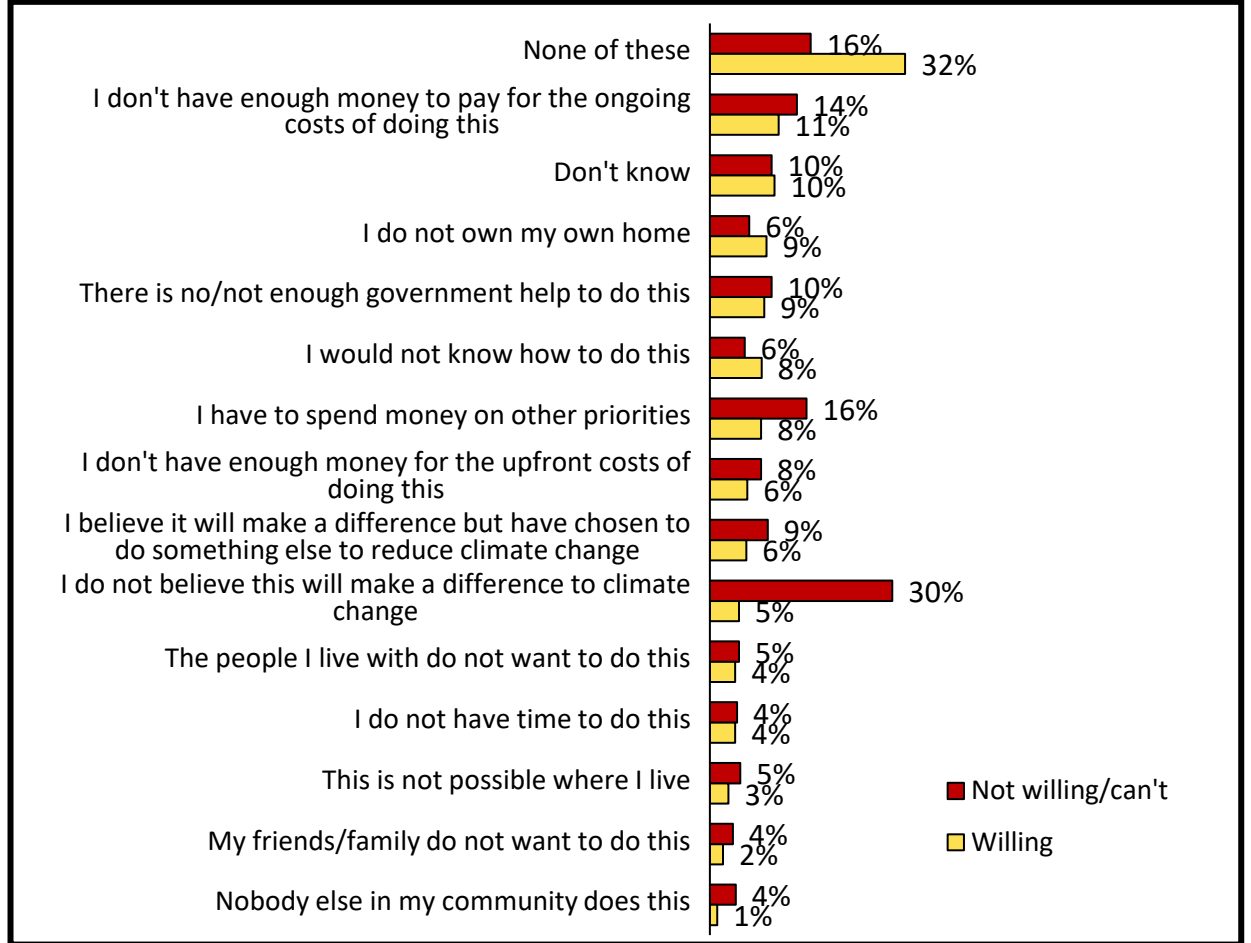
Willingness (Base: 3024)



Key motivations (Base: 1775, 660, multi-choice)



Key barriers (Base: 403, 1775, multi-choice)



Summary/key points

- Focusing efforts on the willing with environmental concerns could unlock more switches to green tariffs (especially competitively priced ones)
- Focusing on simple, actionable steps to make the change easy

Change to a green energy tariff for your gas and electric

Impact of behaviour
change campaign:
High



What is the most effective practise?

- Letters to residents promoting energy switching from a trusted source
- Default green energy tariffs
- Encourage social sign up to green energy tariffs
- Make comparison of different energy tariffs easy

Existing evidence: High
Level of influence: Medium

Best evidence – Control trial

- Trial 1) Supplier branded letters showing personalised cheaper deals from rival suppliers promoted switching energy tariff more effectively than Ofgem branded letters due to trusted relationships and the clear lack of ulterior motive in one supplier promoting its competitors.
- Trial 2) An Ofgem-branded letter showing personalised cheaper deals were more effective at promoting switching to a new energy tariff than up to six marketing letters from rival suppliers (UK, 2018)

References

The Behavioural Insights Team, [One letter that triples energy switching](#), February 2018

Case studies

- Found when renewable energy was presented to consumers as the default option (i.e. opt-out), consumers choose this option 68% of the time but when the conventional supplier was presented as the default option, consumer choose the renewable option 41% of the time. This was despite higher costs for renewables (Germany, 2008)
- When apartment residents publicly signed up to install an automatic power regulator on their heating and cooling system to reduce energy demand, overall participation rates in the building increased (USA, 2013)
- Price comparison websites and apps serve to simplify decision-making for customers, while simplified metrics like a Tariff Comparison Rate (TCR) on energy tariffs combine multiple dimensions of price into a single figure to help consumers find the best options (UK, 2019)

United Nations Environment Programme, [Consuming differently, consuming sustainably: behavioural insights for policymaking](#) 2017, page 21

The Behavioural Insights Team, [Conservation for Nature](#) 2019, page 37 and 48



Action dashboard – Install insulation (e.g. loft, cavity wall insulation etc.)

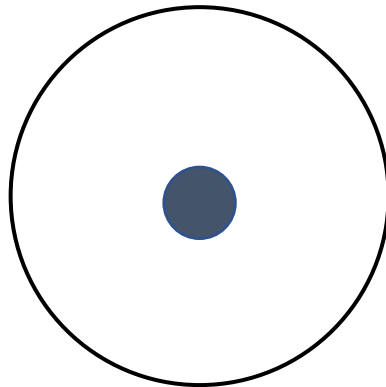
Opportunity size is large (5/18 actions)

Willingness is low (37%) and carbon saving is high

Home ownership and lack of upfront money are key barriers

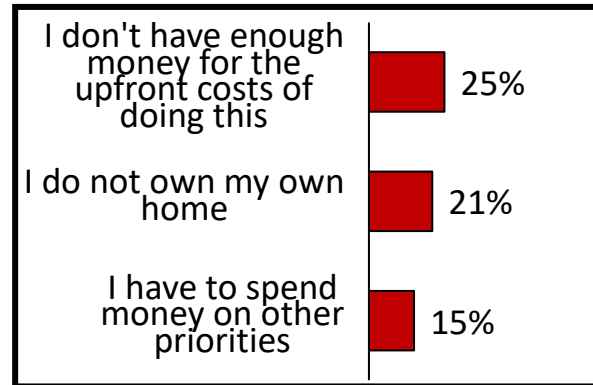
Finance is a good route in to encourage behaviour change

Size of opportunity (outer line reflects largest opportunity)

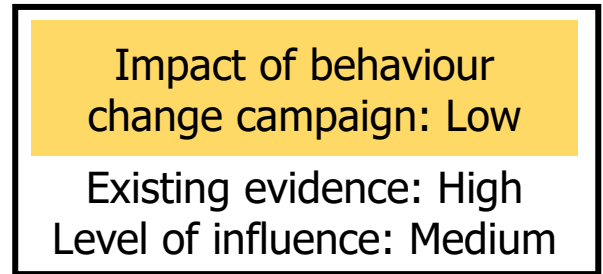


321.18 million kgCO₂e

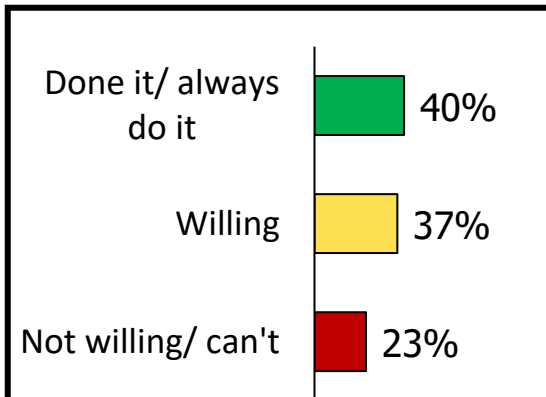
Key barriers (Base: 1104)



Behaviour change evidence

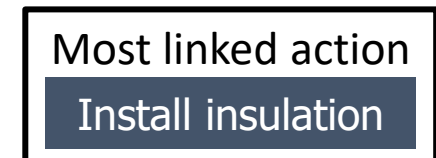
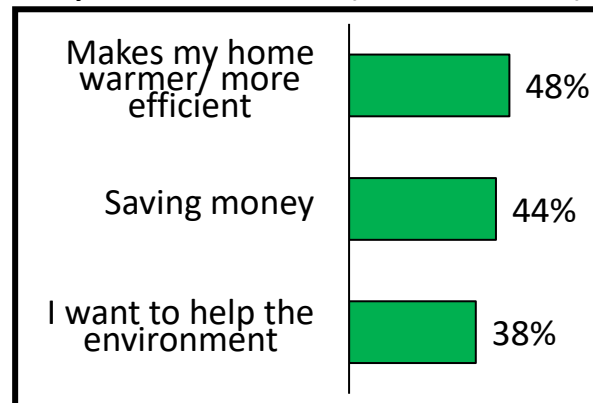


Willingness (Base: 3024)



Carbon saving for one person taking the action: 589.54 kgCO₂e annually

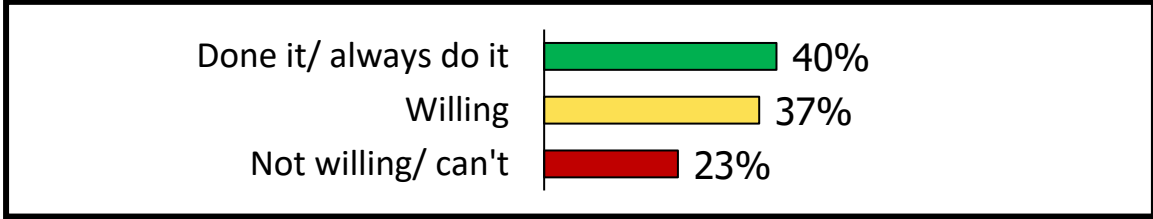
Key motivations (Base: 1104)



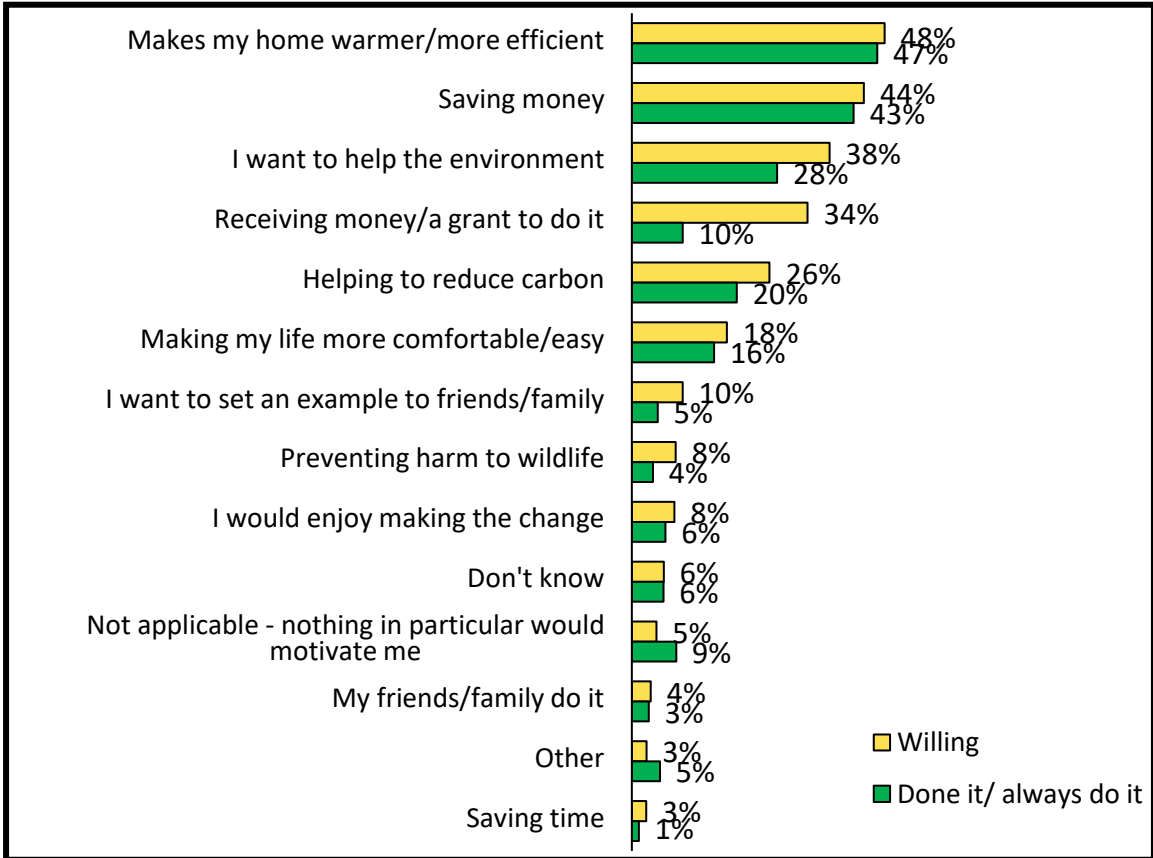


Install insulation (e.g. loft, cavity wall insulation etc.)

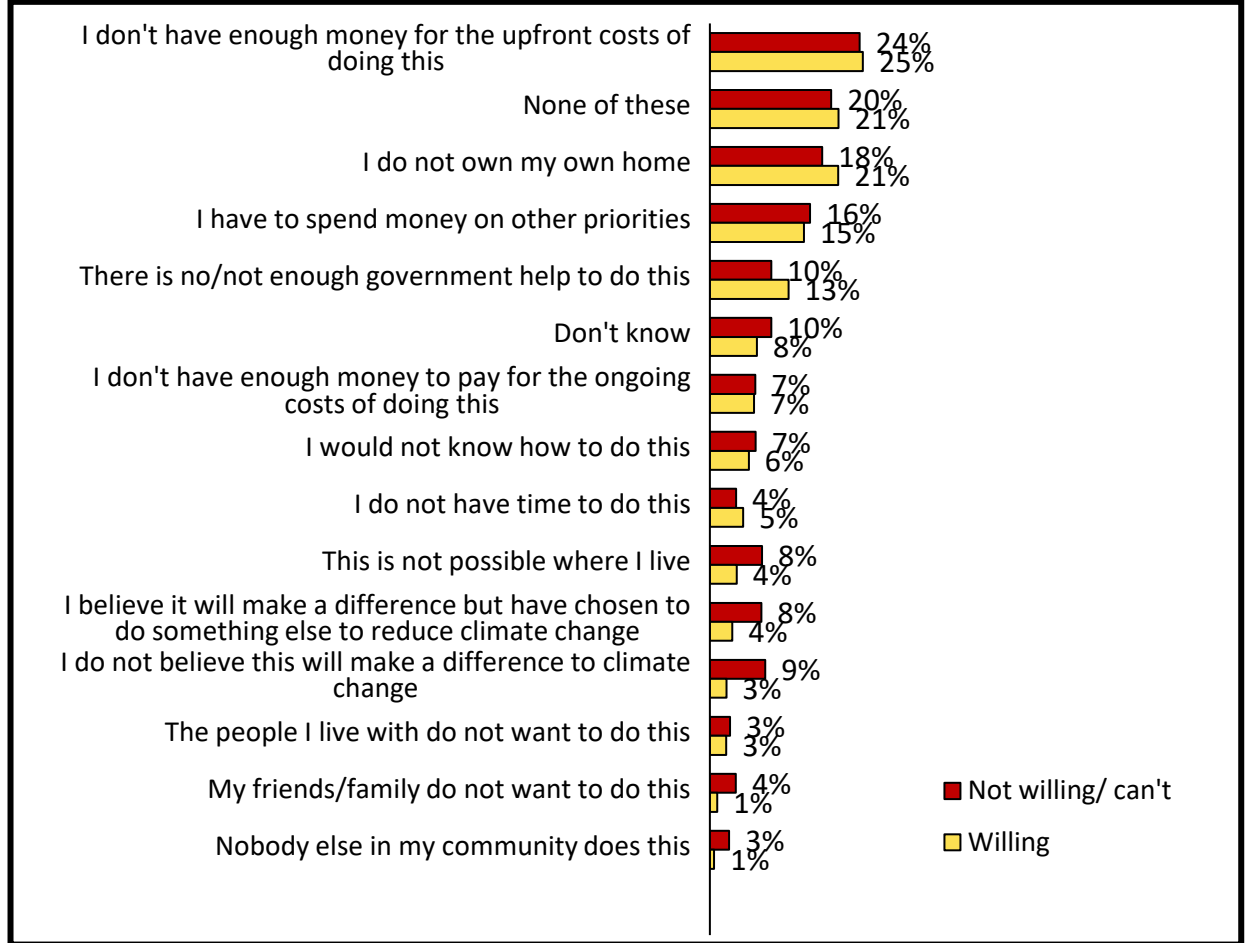
Willingness (Base: 3024)



Key motivations (Base: 1104, 1216, multi-choice)



Key barriers (Base: 188, 1104, multi-choice)



Summary/key points

- Finance is key – Saving money and receiving a grant/money are strong motivations for the willing
- Money and home ownership are the biggest barriers

Install insulation

What is the most effective practise?

- Remove barriers to insulating home e.g. hassle factors
- Make information on energy saving tangible and personalised
- Provide education alongside insulation to promote higher energy saving

Impact of behaviour
change campaign:
Low



Existing evidence: High
Level of influence: Medium

Best evidence – Control trial

- Different leaflets for loft insulation were sent out across three boroughs
 - Borough 1: Loft insulation and no loft clearance: £179 (Control)
 - Borough 2: Loft insulation & Loft clearance: £369 – cost price (No hassle factor)
 - Borough 2: Loft insulation & Loft clearance: £450 retail price (No hassle factor)

While there is some indication that reducing the hassle factor and the price increases the uptake of loft conversions, due to low uptake on the trial, the numbers were too small to provide firm conclusions (UK, 2013)

Case studies

- Education programmes provided at the same time as the adoption of new technology and one-off modifications can act as a stimulus for changing habitual behaviours. A well-designed study looking at those insulating and draft-proofing their properties showed that significant increases in energy savings were attainable by providing education at such moments of change (16% average gas saving with insulating alone vs. 26% with education included) (USA, 2008)
- When people were given information on how many cracks there were in their home 20% of people weather stripped their windows. But when information was made tangible (i.e. the gap in your house is the size of a basketball) 60% weather stripped. (Unknown, 2013)

References

Department of Energy and Climate Change, [Removing the hassle factor associated with loft insulation: Results of a behavioural trial](#), September 2013

Department of Energy and Climate Change, [What Works in Changing Energy-Using Behaviours in the Home?](#), November 2012

TED Talks, [Three Myths of Behavior Change - What You Think You Know That You Don't: Jeni Cross](#), March 2013



Action dashboard – Use water saving devices

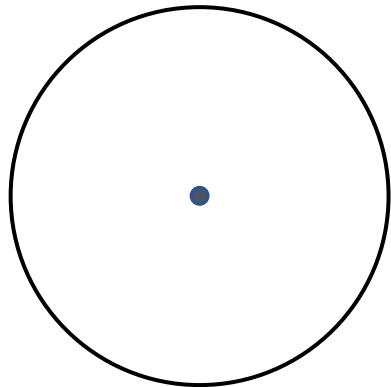
Opportunity size is moderate (10/18 actions)

Willingness is high (61%) and carbon saving is low

Saving money as well as the environment are key motivators

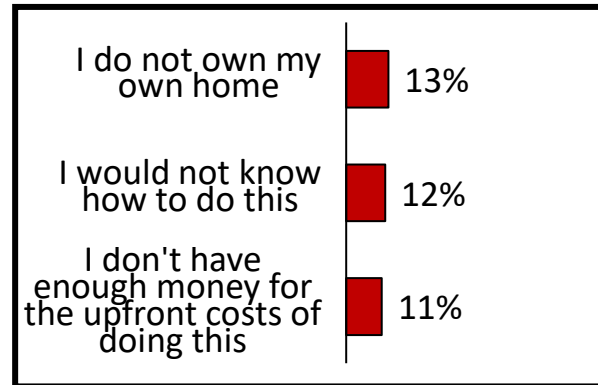
Finance is a good route in and installation is a well linked action

Size of opportunity (outer line reflects largest opportunity)

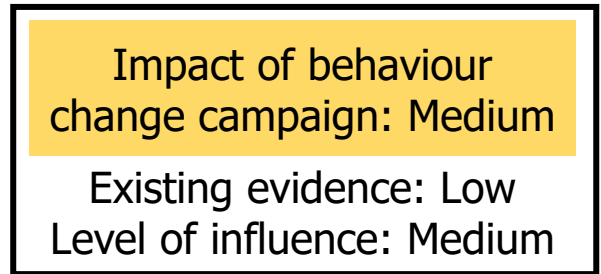


80.31 million kgCO₂e

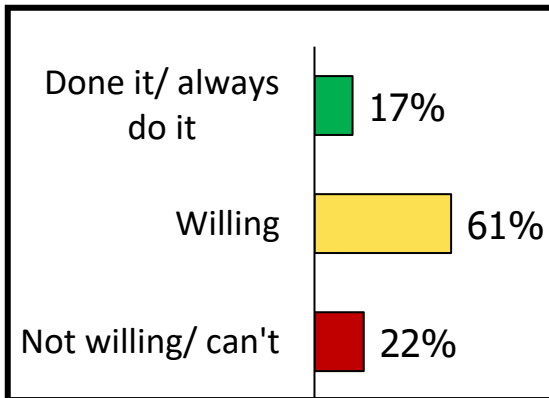
Key barriers (Base: 1844)



Behaviour change evidence

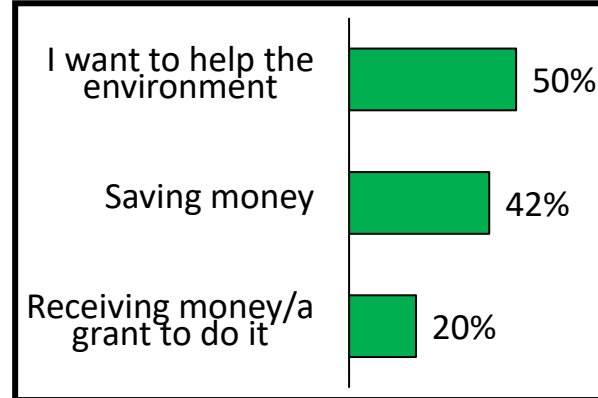


Willingness (Base: 3024)



Carbon saving for one person taking the action: 89.42 kgCO₂ equivalent annually

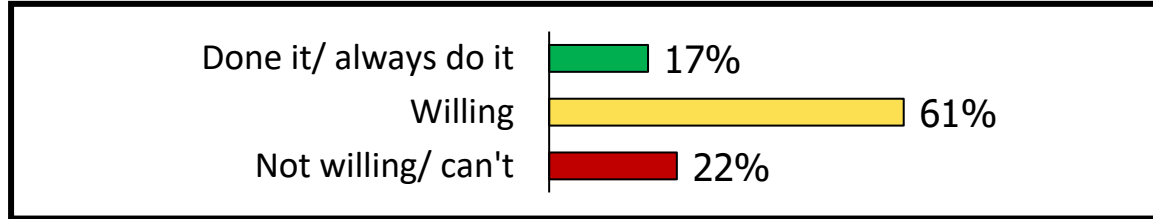
Key motivations (Base: 1844)



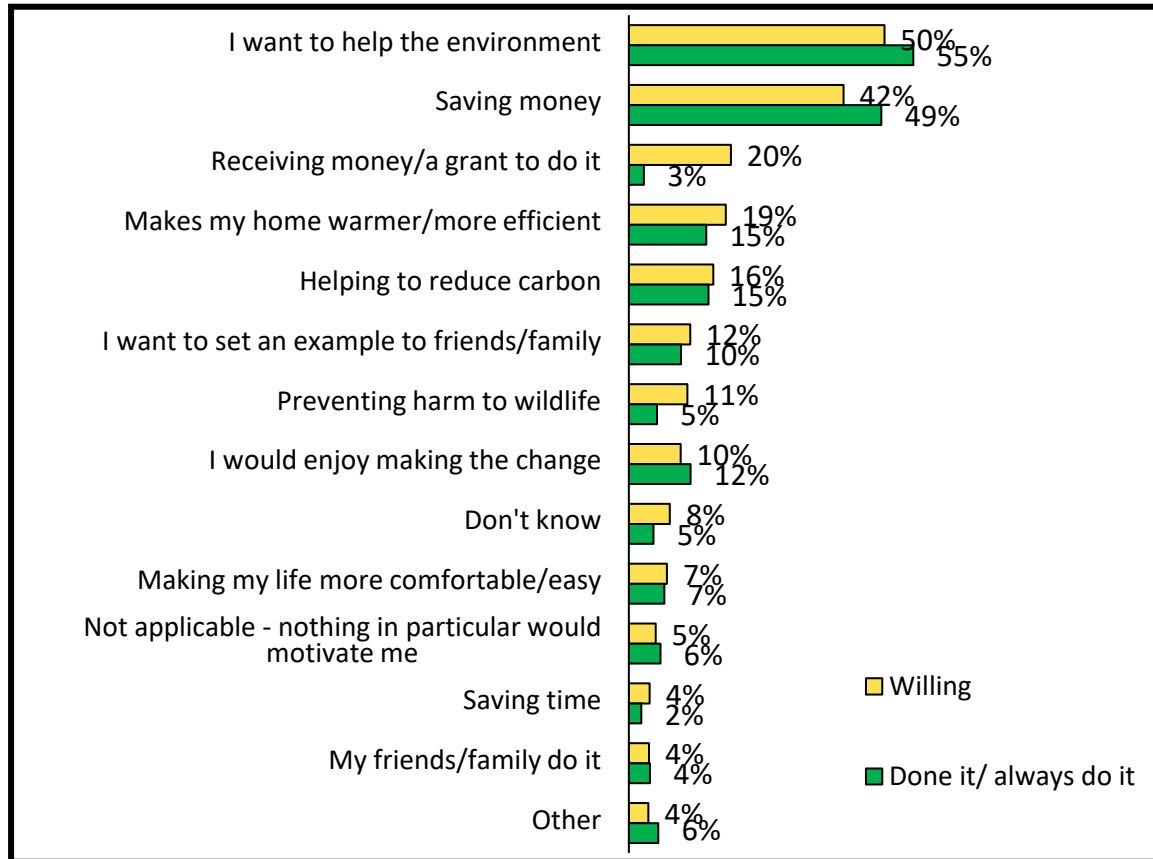


Use water saving devices (e.g. shower timer, rainwater barrel, etc.)

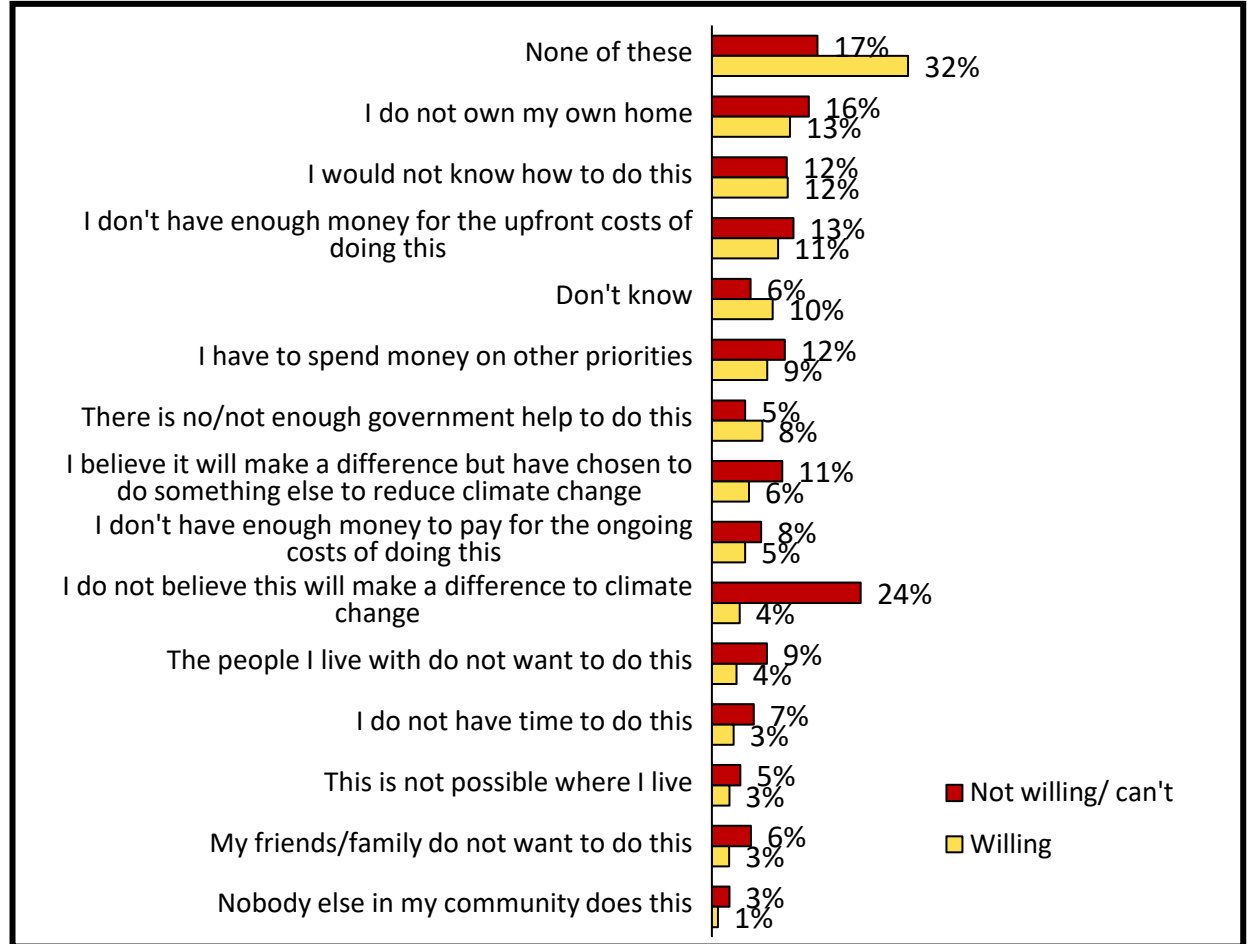
Willingness (Base: 3024)



Key motivations (Base: 1844, 530, multi-choice)



Key barriers (Base: 443, 1844, multi-choice)



Summary/key points

- Connecting water to carbon is an issue among the unwilling
- Uncertainty on what this behaviour entails and some misunderstanding that there are high upfront costs, or you need to own your own home

Use water saving devices

Impact of behaviour
change campaign:
Medium



What is the most effective practise?

- Incentivise water saving through giving away free devices

Existing evidence: Low
Level of influence: Medium

See ['Install loft and wall insulation and plug gaps to stop drafts'](#)

Case studies

- Interviews were conducted with 42 families. One of the areas covered was would water saving devices promote water saving?
 - Overall, individuals felt it was a relevant incentive and would promote water savings
 - However skepticism around whether interest in saving water would last once all water saving devices were collected (UK, 2013)



Research into saving water - the experiences and perceptions of customers and their households (2013). Consumer council for water.

Action dashboard – Choose energy efficient appliances when purchasing or replacing



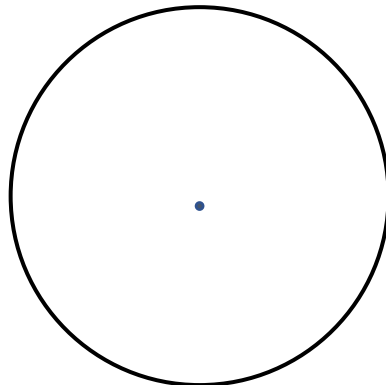
Opportunity size is small (14/18 actions)

Willingness is moderate (48%) and carbon saving is high

A focus on the upfront costs is a barrier – long term saving a motivator

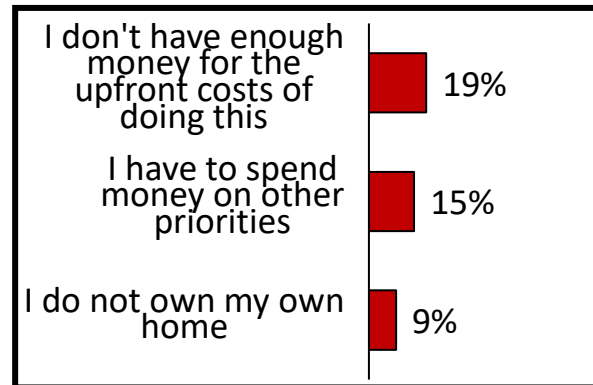
Finance is a good route in to encourage behaviour change

Size of opportunity (outer line reflects largest opportunity)



31.13 million kgCO₂e

Key barriers (Base: 1443)



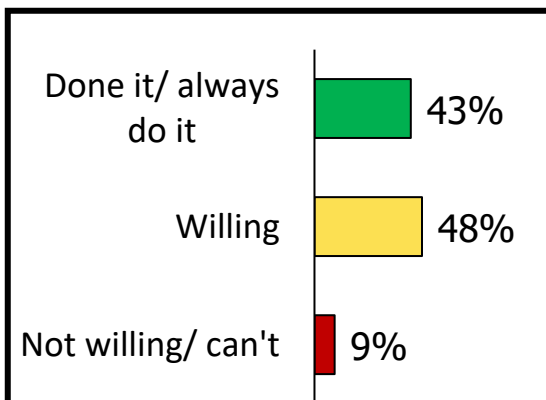
Behaviour change evidence

Impact of behaviour change campaign: High

Existing evidence: High

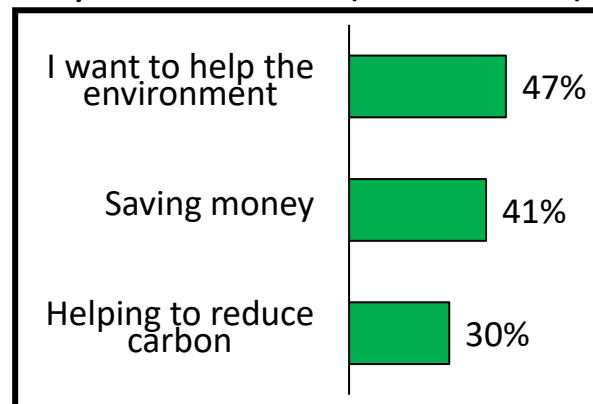
Level of influence: Medium

Willingness (Base: 3024)



Carbon saving for one person taking the action: 44.04 kgCO₂ equivalent annually

Key motivations (Base: 1443)



Best marketing approach

Not determined

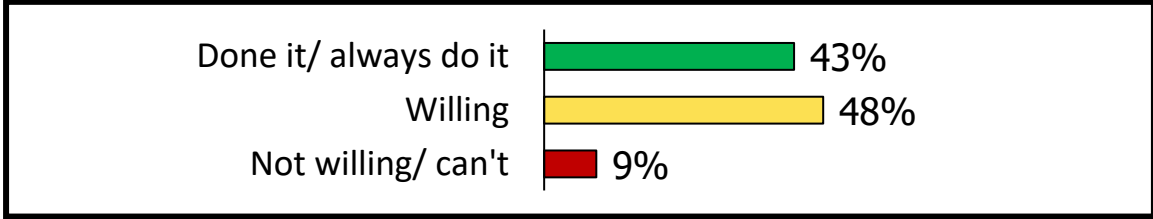
Most linked action

Reduce use of plastics

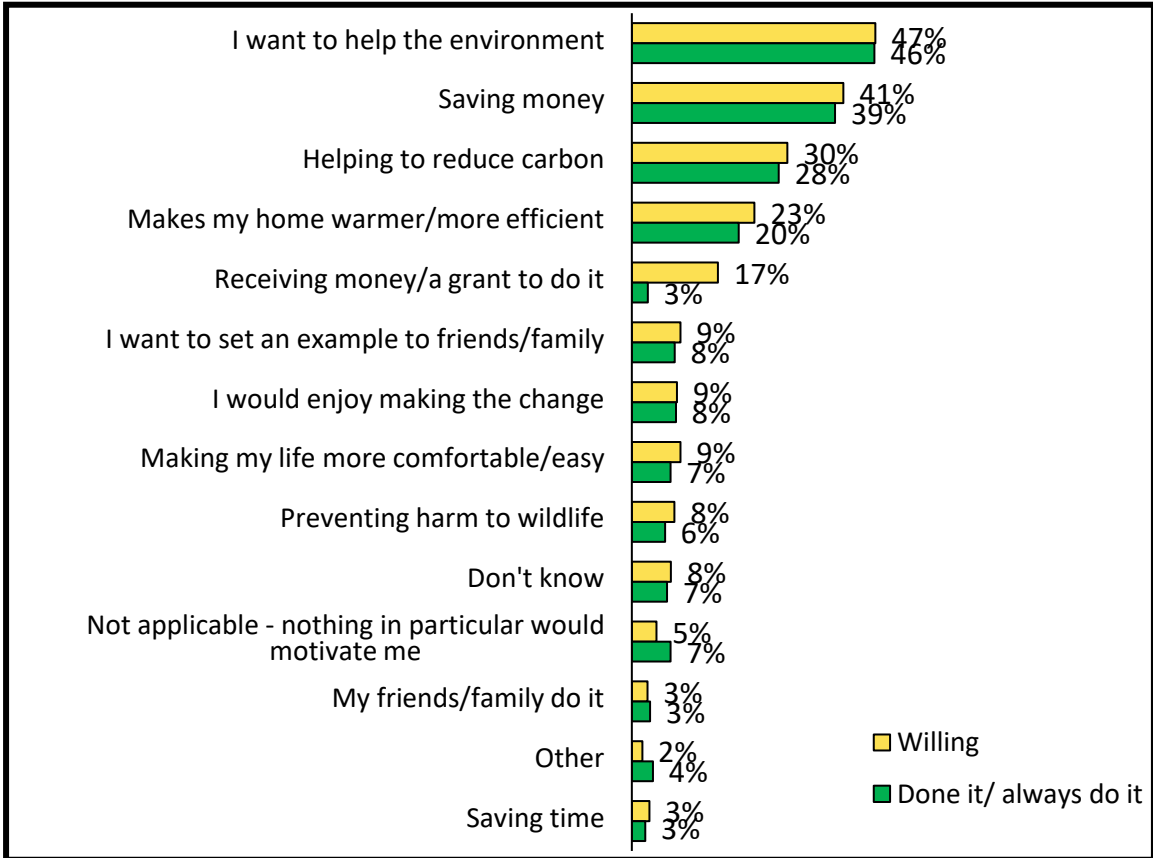


Choose energy efficient appliances when purchasing or replacing

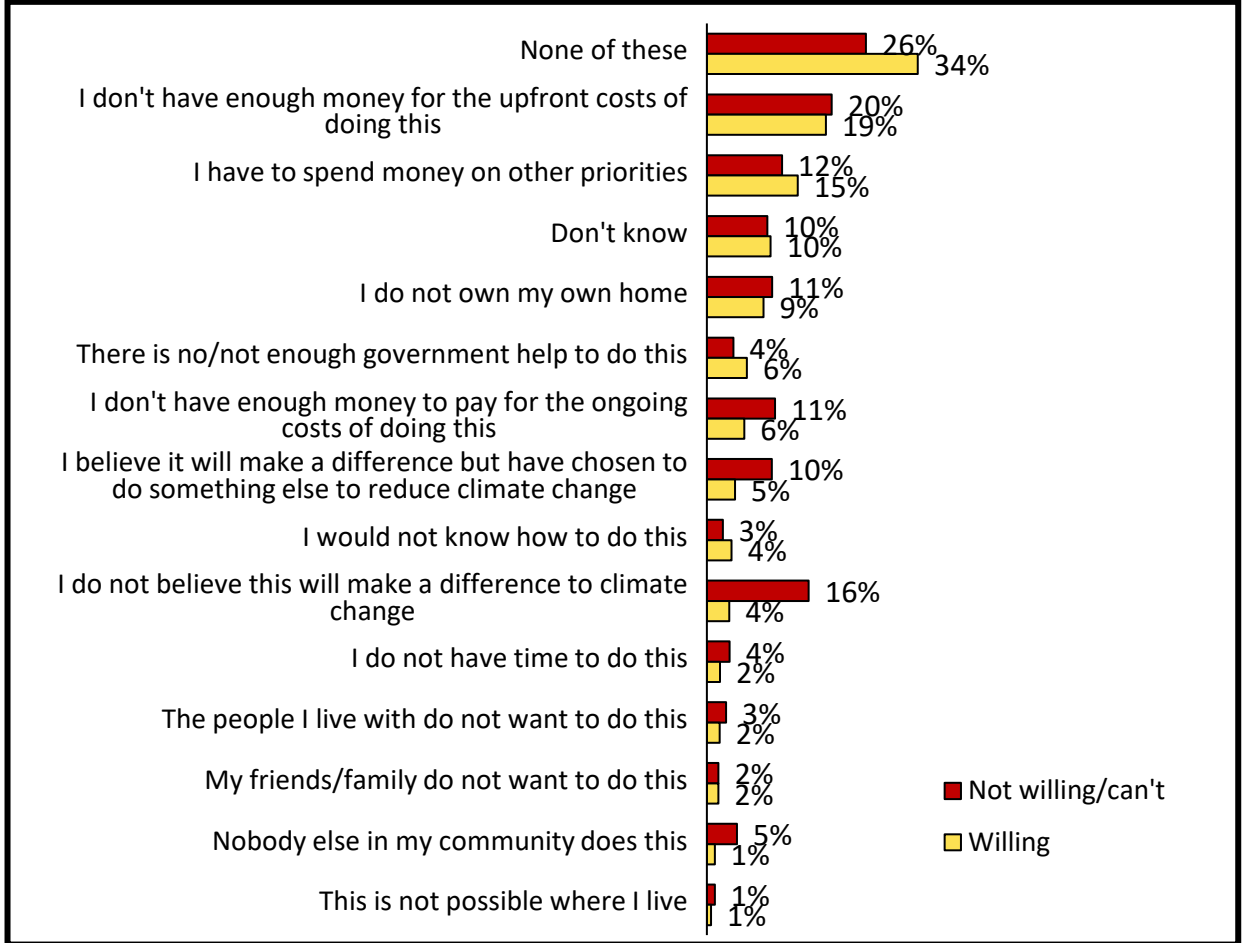
Willingness (Base: 3024)



Key motivations (Base: 1443, 2757, multi-choice)



Key barriers (Base: 157, 1443, multi-choice)



Summary/key points

- Convincing the willing that they will save money will promote this action. The environmental impact should be promoted secondarily.

Choose energy-efficient products when purchasing or replacing

Impact of behaviour change campaign: High



Existing evidence: High
Level of influence: Medium

What is the most effective practise?

- Point of sale displays
- Financial subsidies

Best evidence – Control trial

- Lifetime running costs of white goods included at point of sale promoted consumers to purchase low energy appliance (see example label). This proved more effective than EU energy labelling with kWh per year. This strategy addresses information barriers in a salient form at point of sale (UK, 2014)

Case study

- Purchase of energy efficient stoves in Uganda increased from 5% to 45% with the following interventions: no upfront costs, paying in instalments and the option to drop out at anytime (Uganda, 2012)

Indesit IDVA735 vented tumble dryer **£185**

- Rated B for energy efficiency
- Max drying load 7kg
- 12 Sensor dry programmes
- 2 heat settings
- Reverse tumble dryer
- Venting from rear
- Flexible vent hose
- **H 85cm 33¼" W 59.7cm 23½" D 58.4cm 23"**
- **Tumbler dryer installation £8**
- **Guarantee 2 years**

Add to your peace of mind with a repair and protection plan for your home appliances

Search for more details on [www.indesit.co.uk](#)

+ Added Care for your home appliances

Lifetime electricity running cost £551

Need help installing an appliance?

We can install many different appliances and can disconnect and dispose of old ones too.

Experts on Hand

References

Department of Energy and Climate Change, [Evaluation of the DECC/John Lewis energy labelling trial](#), September 2014

United Nations Environment Programme, [Consuming differently, consuming sustainably: behavioural insights for policymaking](#) 2017, page 25



Action dashboard – Use less water (e.g. turn the tap off when brushing your teeth)

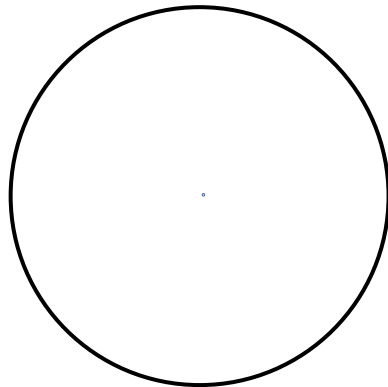
Opportunity size is in the bottom 2 (17/18 actions)

Willingness is low (34%) and carbon saving is low

Belief it does not make a difference is a key barrier

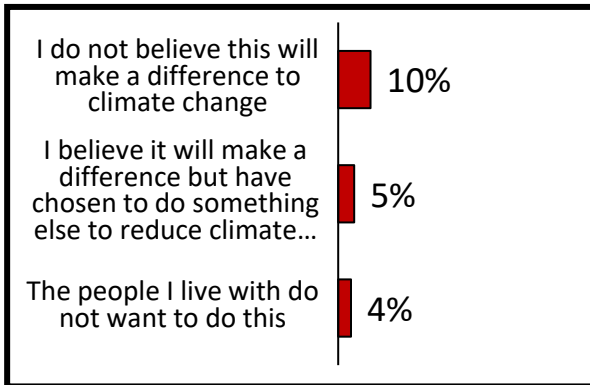
Evidence of behaviour change is moderate. Finance is the best route

Size of opportunity (outer line reflects largest opportunity)



4.33 million kgCO₂e

Key barriers (Base: 1775)



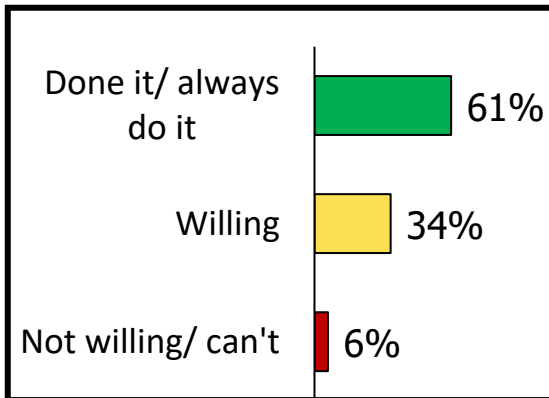
Behaviour change evidence

Impact of behaviour change campaign: High

Existing evidence: High

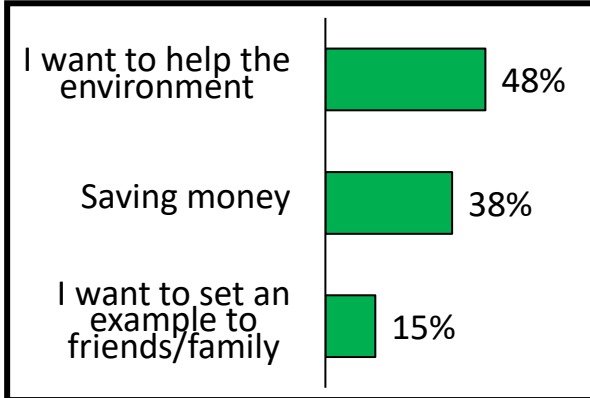
Level of influence: Medium

Willingness (Base: 3024)



Carbon saving for one person taking the action: 8.64 kgCO₂ equivalent annually

Key motivations (Base: 1775)



Best marketing approach

Financial

Easier

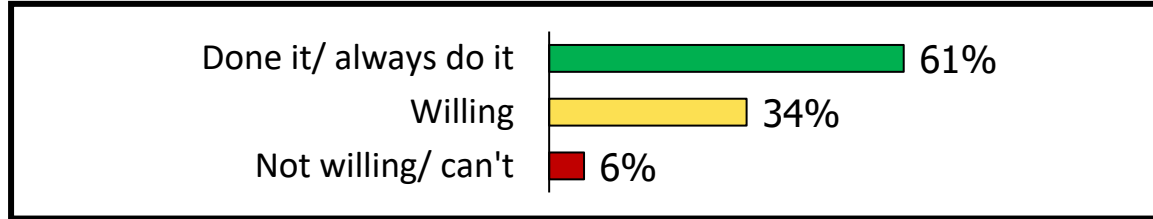
Most linked action

Reduce food waste

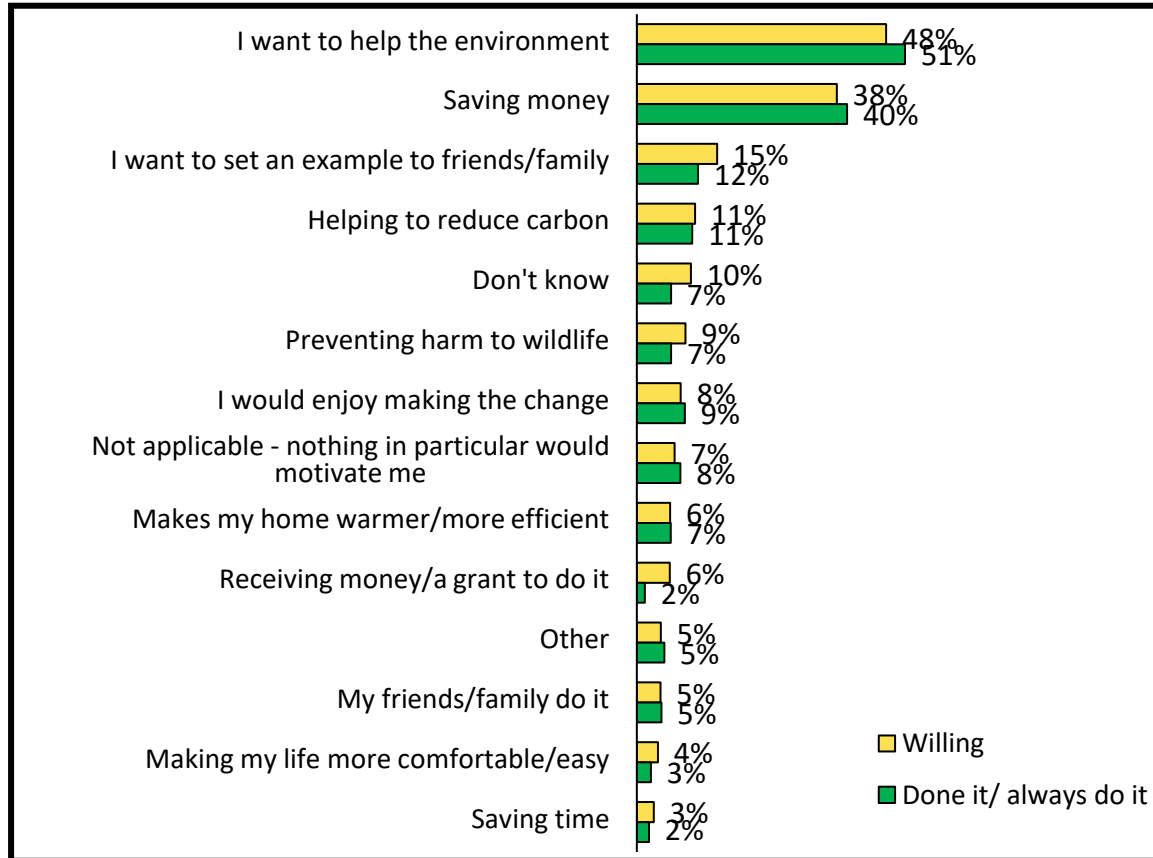


Use less water (e.g. turn the tap off when brushing your teeth)

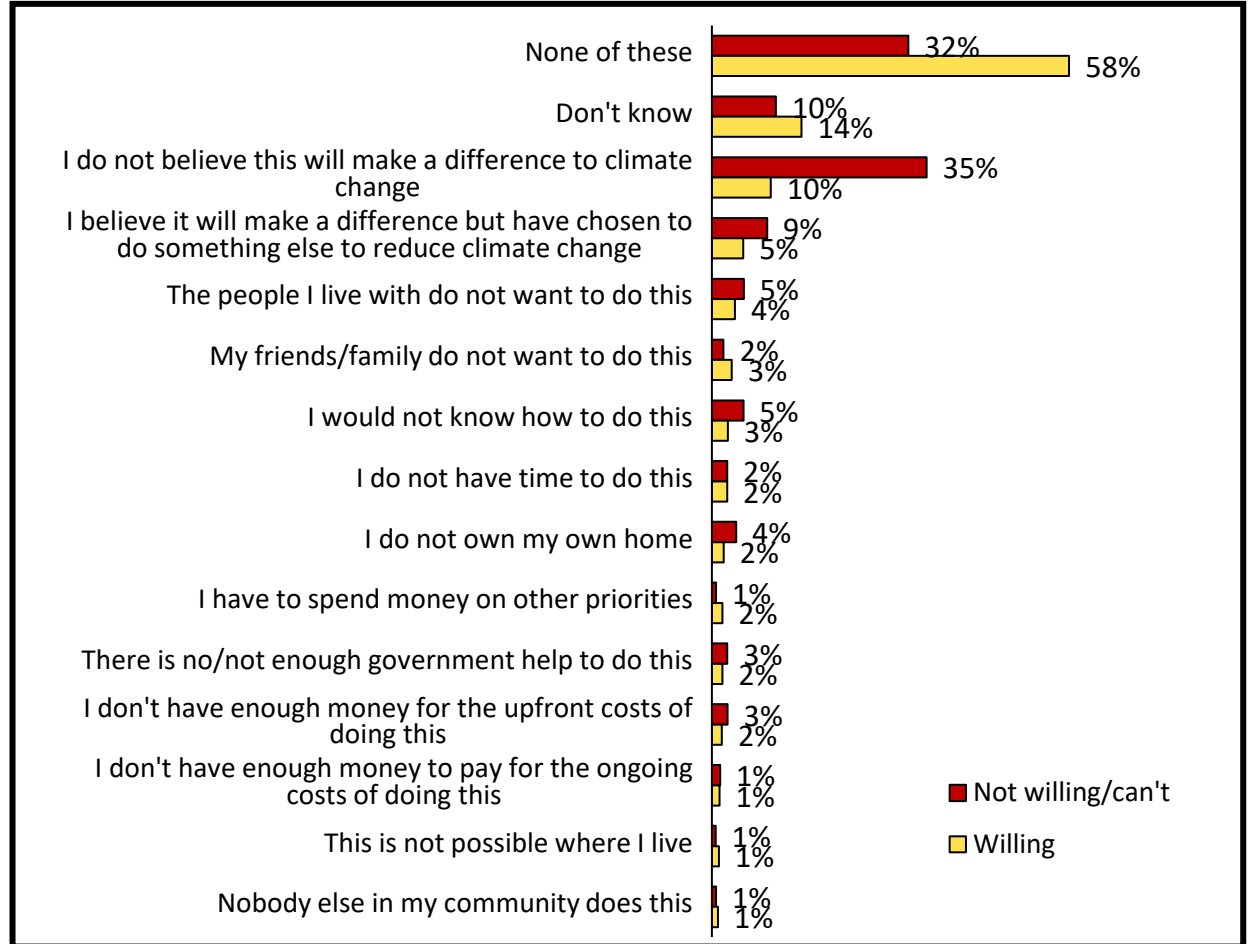
Willingness (Base: 3024)



Key motivations (Base: 1019, 2912, multi-choice)



Key barriers (Base: 148, 1019, multi-choice)



Summary/key points

- Helping the environment is the top motivation to save water, with money second most important
- Belief this is not important in reducing climate impact

Use less water (1)

Impact of behaviour
change campaign:
High



What is the most effective practise?

- Real-time feedback with tailored messages
- Use social norms, message framing and choice architecture as secondary tactic

Existing evidence: High
Level of influence: Medium

Best evidence – Control trial

- Effectiveness of providing different types of information to reduce water use with households in Australia
 - Intervention 1: Advice, including simple tips on how to save water
 - Intervention 2: Social Norms, guidance on how to reduce water usage based on what other households have done
 - Intervention 3: Specific Use, water-saving tips along with specific information of where water was being used in their household
 - Control, received no information.All interventions reduced water usage. While interventions 1 and 2 showed faster initial decline, intervention 3 showed a more sustained decline in the long run (Australia, 2011)

References

United Nations Environment Programme, [Consuming differently, consuming sustainably: behavioural insights for policymaking](#) 2017, page 30

Best evidence – Control trial

- Attunement labels were given to participants to be installed around their home and garden, e.g. dishwashers, outdoor taps. The labels are designed to show residents the environmental impact of the behaviour and suggest actions to reduce the impact. Shower label was fitted with a digital clock to enable residents to monitor time spent showering. The programme led to a 23% reduction in water consumption, particularly for using less water in the garden and reducing shower time (Australia, 2005)

Department of Energy and Climate Change, [What Works in Changing Energy-Using Behaviours in the Home?](#), November 2012, page 35

Use less water (2)

Impact of behaviour
change campaign:
High



Best evidence – Review

- Information is only meaningful when people know how they can change their behaviour and consider this feasible
- Real-time water use feedback provided through smart meters results in long-term savings only when such tailored feedback is reinforced by repetition, social norms, and message framing incentives
 - Framing refers to emphasizing aspects of a message – this could be direct impacts of behaviour or intrinsic motivation
- The water conservation impact of social norms or message framing appear to be short-lived if not supported by tailored feedback or information on the importance of saving water
- The use of emotions, primes and choice architecture prompt momentary water-saving responses

References

Koop, S. H. A., Van Dorssen, A. J., & Brouwer, S. (2019). Enhancing domestic water conservation behaviour: A review of empirical studies on influencing tactics. *Journal of environmental management*, 247, 867-876.

Case studies

- Letter based interventions to reduce water use in Costa Rica
 - Intervention 1: Social comparison across neighborhood on water bill with 'injunctive' norm
 - Intervention 2: Social comparison across city on water bill with 'injunctive' norm
 - Intervention 3: Postcards with water prompting people to make concrete plans to reduce water consumption
- Neighbourhood social comparison reduced water consumption between 2.7% and 5.6%
Postcard intervention reduced water usage by 3.6% and 5.6% (Costa Rica, 2014)

Use less water (3)

Impact of behaviour
change campaign:
High



Related: Using energy meaningfully

Best evidence – Meta-analysis

- Provision of Home Energy Reports, which present both comparative consumption information and energy efficiency advice, lead people to change their energy-using behavior in the order of 1% to 3% per household
- Households with more scope to reduce energy use (i.e. those with higher baseline energy consumption) experience larger savings in energy use within interventions
- Team-based approaches, which use peer support (and pressure) as a way to encourage changes in behaviour, have led to energy savings of the order of 8–10%. However, wide scale implementation of such programmes may be limited by the requirement for highly tailored instructions and coaching to each household or team
- Home energy reports and team-based interventions produce sustained energy reductions whereas competitions can raise awareness and lead to large short-term changes (UK, 2012)

References

Department of Energy and Climate Change, [What Works in Changing Energy-Using Behaviours in the Home?](#), November 2012

Use less water (4)

Impact of behaviour change campaign: High



Related: Using energy meaningfully

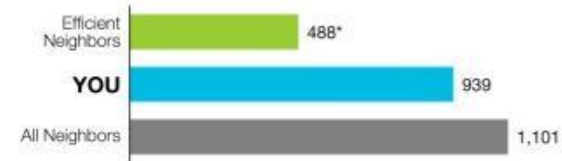
Best evidence: Control trial (from meta-analysis)

- Home Energy Reports included two main elements:
 - Social comparison (see picture): Electrical consumption compared to neighbours and the 'injunctive norm' by categorising the household as great, good or below average
 - Action steps: providing tips for saving energy, ranked by level of effort, investment and potential monetary savings. The tips provided are targeted to the household through an analysis of the household's historical energy use patterns and demographic characteristics

Average energy use fell to 2% per household

- Those who had the highest level of energy consumption pre-intervention decreased usage by 6.3% and only 0.3% for those with low usage (USA, 2011)

Last Month Neighbor Comparison | You used **92% MORE** energy than your efficient neighbors.



* This energy index combines electricity (kWh) and natural gas (therms) into a single measurement.

How you're doing:

Great 😊 😊

▶ **GOOD** 😊

More than average

Who are your Neighbors?

■ **All Neighbors:** Approximately 100 occupied, nearby homes that are similar in size to yours (avg 1,104.337 sq ft) and have electric heat

■ **Efficient Neighbors:** The most efficient 20 percent from the "All Neighbors" group

Best evidence: Control trial (from meta-analysis)

- The EcoTeams programme: four to ten neighbours and friends to engage in facilitated discussions about environmental behaviour in the household, covering topics relating to energy and water consumption as well as waste management and transport. They met once a month for eight months. The group setting enables members to discuss personal experiences and receive feedback and advice. Participants weigh their rubbish and recycling and monitor their energy use over the course of the programme. Electricity use fell by 7% as a result of the programme (UK, 2008)

References

Department of Energy and Climate Change, [What Works in Changing Energy-Using Behaviours in the Home?](#), November 2012

Use less water (5)

Impact of behaviour
change campaign:
High



Related: Monitoring energy use

Best evidence – Control trial

- NEST Learning thermostat: Uses sensors and machine-learning to understand the thermal properties of your building and your occupancy habits and tweaks the heating accordingly. Savings were achieved of around 6-7% of the heating system's gas use, or 4.5-5% of total household gas consumption, compared to the 'modern suite' of controls (a programmable timer, room thermostat, and radiator valves) (UK, 2017)

Case studies

- Impacts of energy use often seems irrelevant and distant. To tackle this, this study provided households with real-time tailored information about their electricity use that either communicated cost savings information or the health impacts (including pollution, childhood asthma, and cancer) associated with electricity consumption. The group receiving the health messages reduced energy consumption by 8%, compared to those that received monetary savings information. This information was dramatically more effective with parents, who reduced their consumption by 19% (USA, 2015)

References

Behavioural Insights Team, [The Nest Learning Thermostat: Making energy savings easy](#), November 2017

United Nations Environment Programme, [Consuming differently, consuming sustainably: behavioural insights for policymaking](#), 2017, page 19

Action summaries – Sustainable travel



Area summary: Sustainable travel



Buy/lease an electric car

Opportunity Size
(millions of kg CO2 annually)

637

Willingness to take action	Ease of Behaviour change	Level of influence
52%	Low	Medium

What evidence suggests you should do...

Invest in infrastructure. Financial incentives that give immediate rewards. Promote collective and community action



Avoid flights by working from home

Opportunity Size
(millions of kg CO2 annually)

373

Willingness to take action	Ease of Behaviour change	Level of influence
24%	Low	Medium

What evidence suggests you should do...

Make it easy to see the impact of flying
Identify the most effective communications to tackle known barriers to action



Avoid flights by taking the train

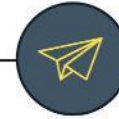
Opportunity Size
(millions of kg CO2 annually)

152

Willingness to take action	Ease of Behaviour change	Level of influence
35%	Low	Medium

What evidence suggests you should do...

Make it easy to see the impact of flying
Identify the most effective communications to tackle known barriers to action.



Avoid international flights

Opportunity Size
(millions of kg CO2 annually)

101

Willingness to take action	Ease of Behaviour change	Level of influence
26%	Low	Medium

What evidence suggests you should do...

Make it easy to see the impact of flying
Identify the most effective communications to tackle known barriers to action



Avoid local travel by working from home

Opportunity Size
(millions of kg CO2 annually)

70

Willingness to take action	Ease of Behaviour change	Level of influence
47%	High	High

What evidence suggests you should do...

Gain quick wins through low-cost interventions e.g. letters and emails with call to actions, testimonials, easy steps to participation and incentives. Use moments of change to ensure intervention is timely.



Public Transport

Opportunity Size
(millions of kg CO2 annually)

45

Willingness to take action	Ease of Behaviour change	Level of influence
41%	High	High

What evidence suggests you should do...

Gain quick wins through low-cost interventions e.g. letters and emails with call to actions, testimonials, easy steps to participation and incentives. Use moments of change to ensure intervention is timely.



Active Transport

Opportunity Size
(millions of kg CO2 annually)

16

Willingness to take action	Ease of Behaviour change	Level of influence
48%	High	High

What evidence suggests you should do...

Gain quick wins through low-cost interventions e.g. letters and emails with call to actions, testimonials, easy steps to participation and incentives. Use moments of change to ensure intervention is timely.



Action dashboard – Buy/ lease an electric car

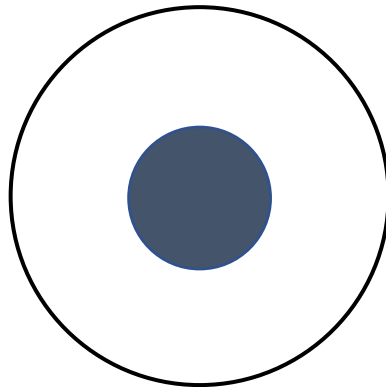
Opportunity size is in the top 5 (3/18 actions)

Willingness is moderate (52%) and carbon saving is high

Upfront costs are the key barriers and only a change in costs will encourage

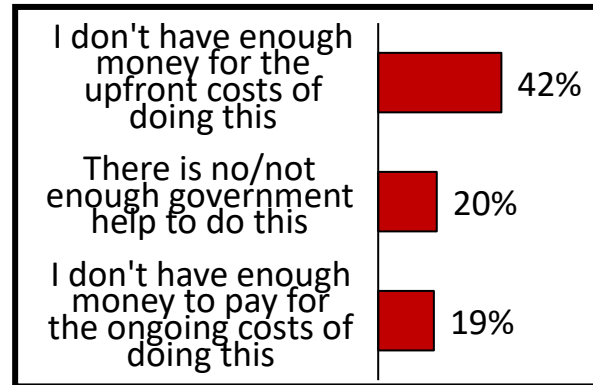
Finance is the communication angle to use

Size of opportunity (outer line reflects largest opportunity)

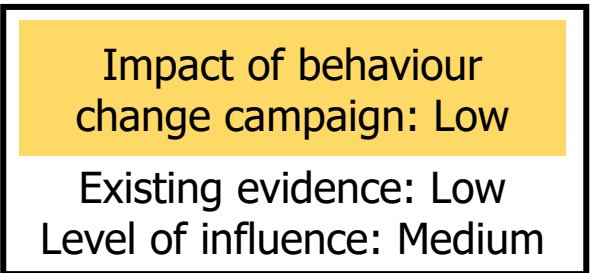


636.64 million kgCO₂e

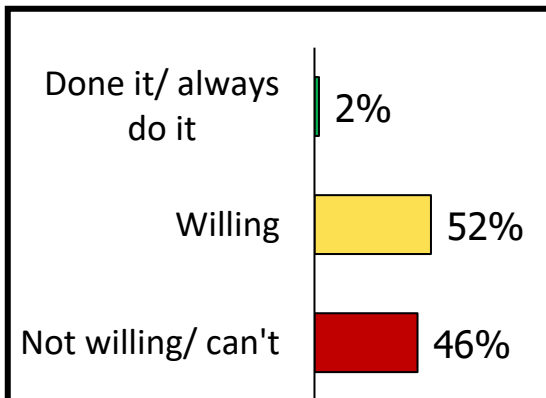
Key barriers (Base: 1567)



Behaviour change evidence

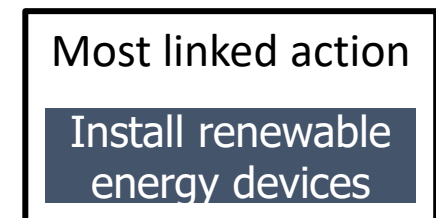
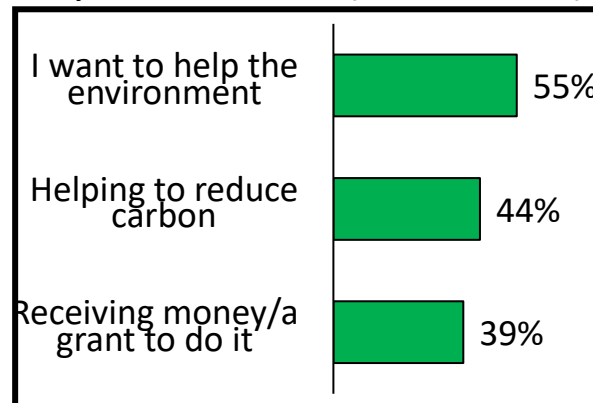


Willingness (Base: 3024)



Carbon saving for one person taking the action: 831.5 kgCO₂ equivalent annually

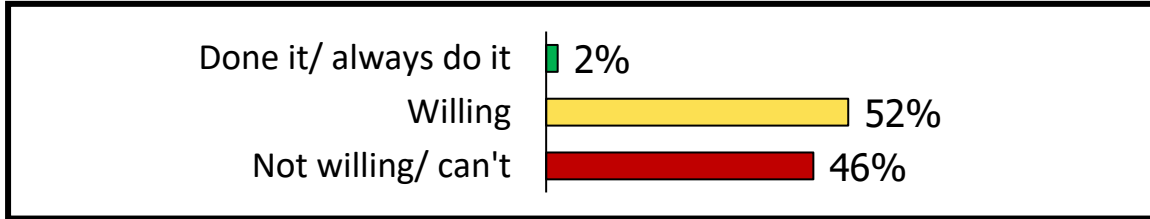
Key motivations (Base: 1567)



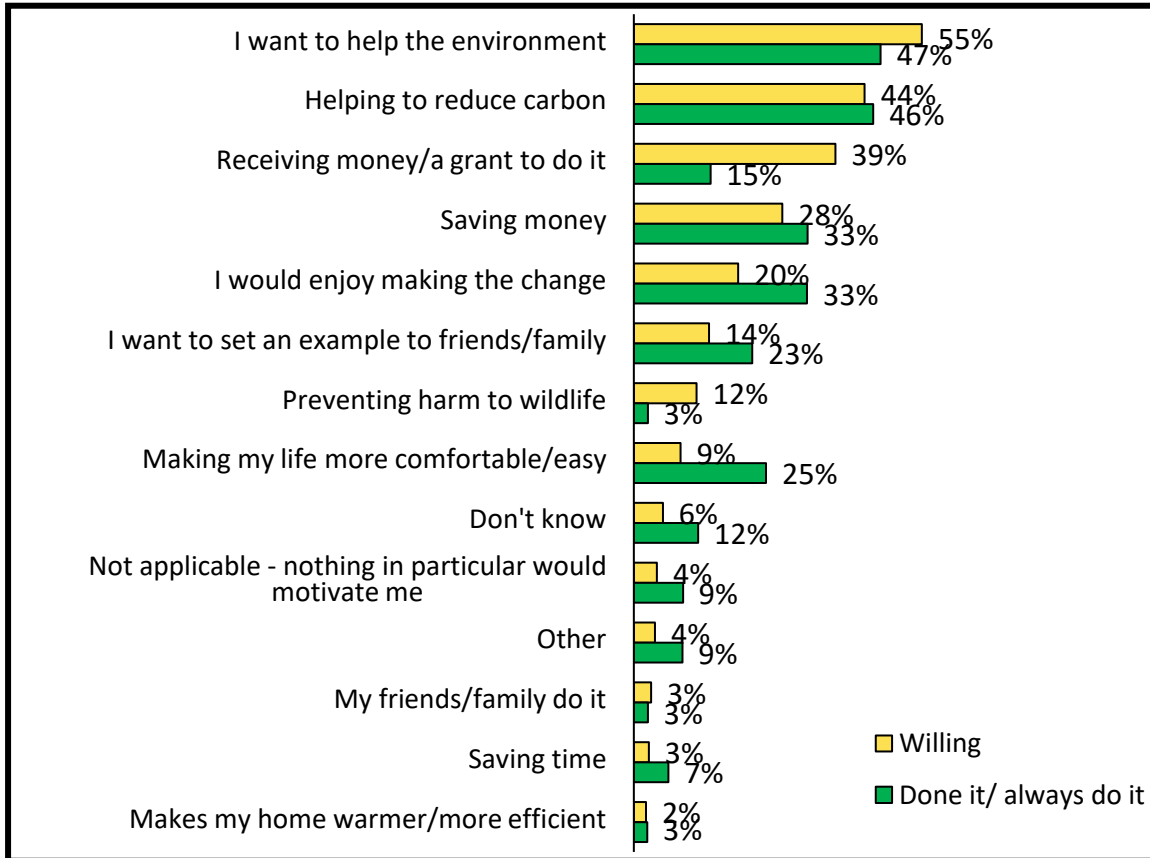


Buy/lease an electric car

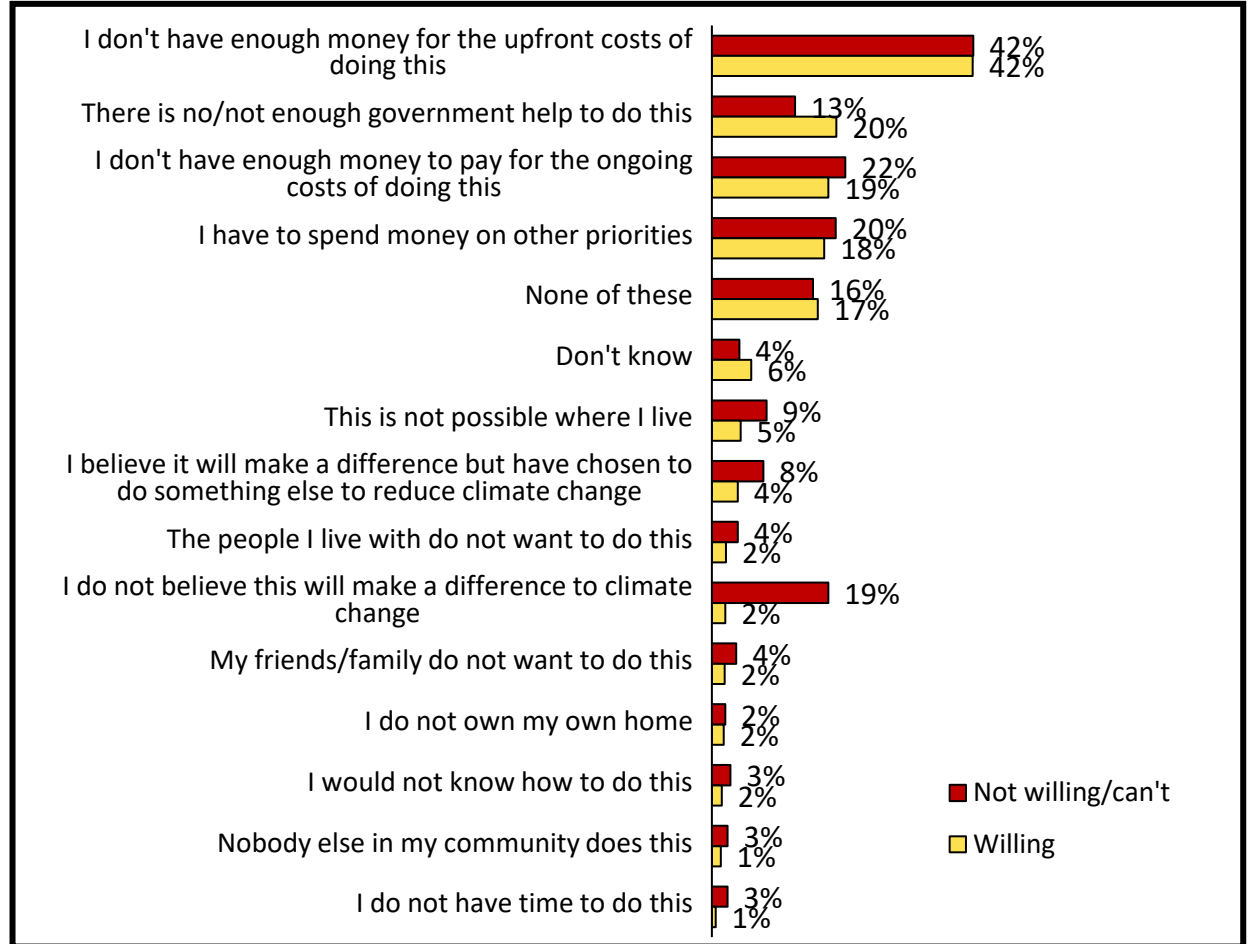
Willingness (Base: 3024)



Key motivations (Base: 1567, 72, multi-choice)



Key barriers (Base: 967, 1567, multi-choice)



Summary/key points

- Enjoying the change and wanting to set an example are key differences among those already owning electric cars
- Willing are more motivated by the environment but held back by costs

Buy/lease an electric car

Impact of behaviour
change campaign:
Low



What is the most effective practise?

- Invest in infrastructure
- Financial incentives that give immediate rewards
- Collective action
- Social norms

Existing evidence: Low
Level of influence: Medium

Case study

- Study into the adoption rates of electric cars in 400 US states with local incentives
 - Financial incentives closer to the point of sale are more attractive to potential customers than rewards that arrived later (i.e. a rebate raised sales by 4.8% compared to tax credit only raising sales by 2.3%);
 - Presence of public charging infrastructure has a strong influence on vehicle purchases decisions;
 - Promoting environmental awareness (USA, 2018)
- The use of electric vehicles can be incentivised by building on the belief that a group is capable of affecting change, include targeting communications at communities or framing individual electrical vehicles use as part of a collective endeavour
- Social norms can also be used to increase the uptake of electric vehicles through programmes that get people to experience electric vehicles, which have the benefit that people are then more likely to recommend them to others

Reference

Narassimhan & Johnson, [Driving modal shift from car to bus](#), 2018

Barth, M. et al. (2016) Still underdetected – Social norms and collective efficacy predict the acceptance of electric vehicles in Germany. *Transportation Research Part F: Traffic Psychology and Behaviour*, 37, pp. 64–77

Bühler, F. et al. (2014) Is EV experience related to EV acceptance? Results from a German field study. *Transportation Research Part F: Traffic Psychology and Behaviour*, 25, pp. 34-49

Action dashboard – Avoid flights by working from home/ conference/ video calls



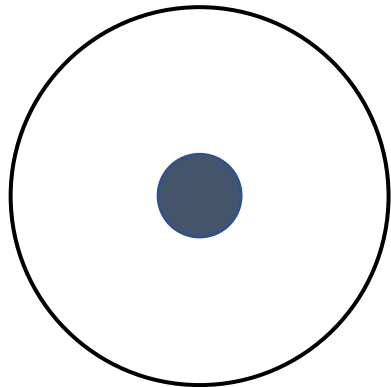
Opportunity size is high
(4/18 actions)

Willingness is low
(24%) and carbon saving is moderate

People choose other climate actions over avoiding flights

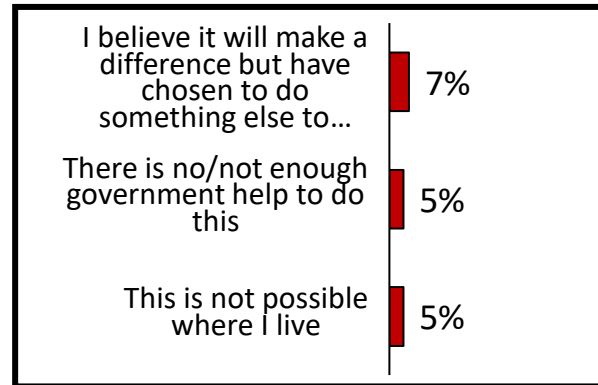
Making it easier is key to changing behaviour

Size of opportunity
(outer line reflects largest opportunity)

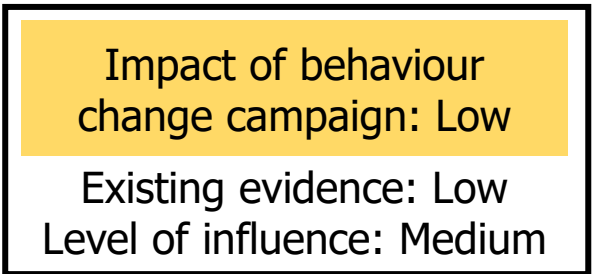


372.84 million kgCO₂e

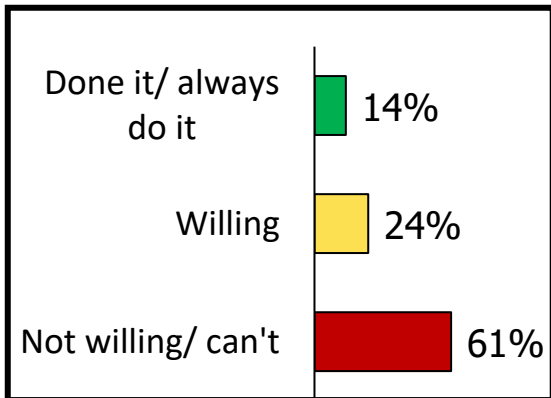
Key barriers (Base: 443)



Behaviour change evidence

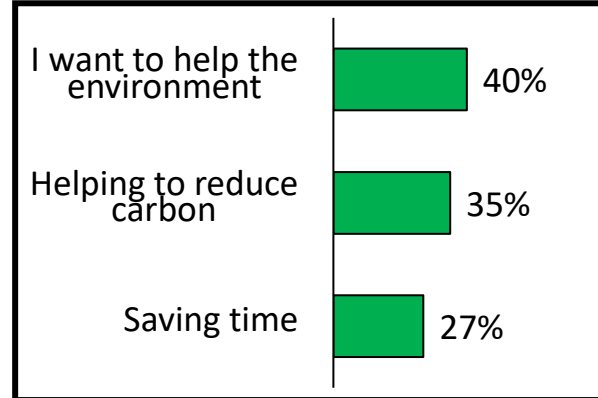


Willingness (Base: 3024)



Carbon saving for one person taking the action:
1055.07 kgCO₂ equivalent annually

Key motivations (Base: 443)



Best marketing approach

Easier

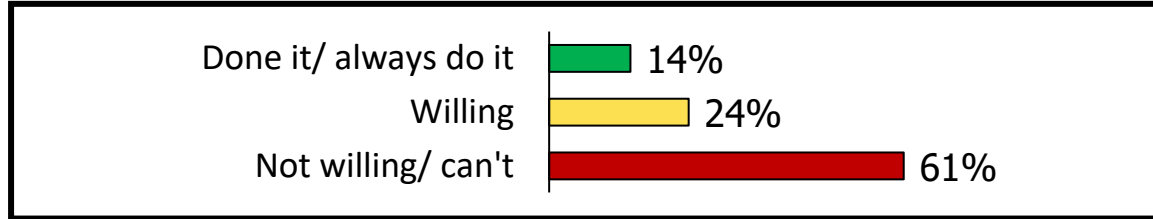
Most linked action

Avoid local travel – home /conference / video call

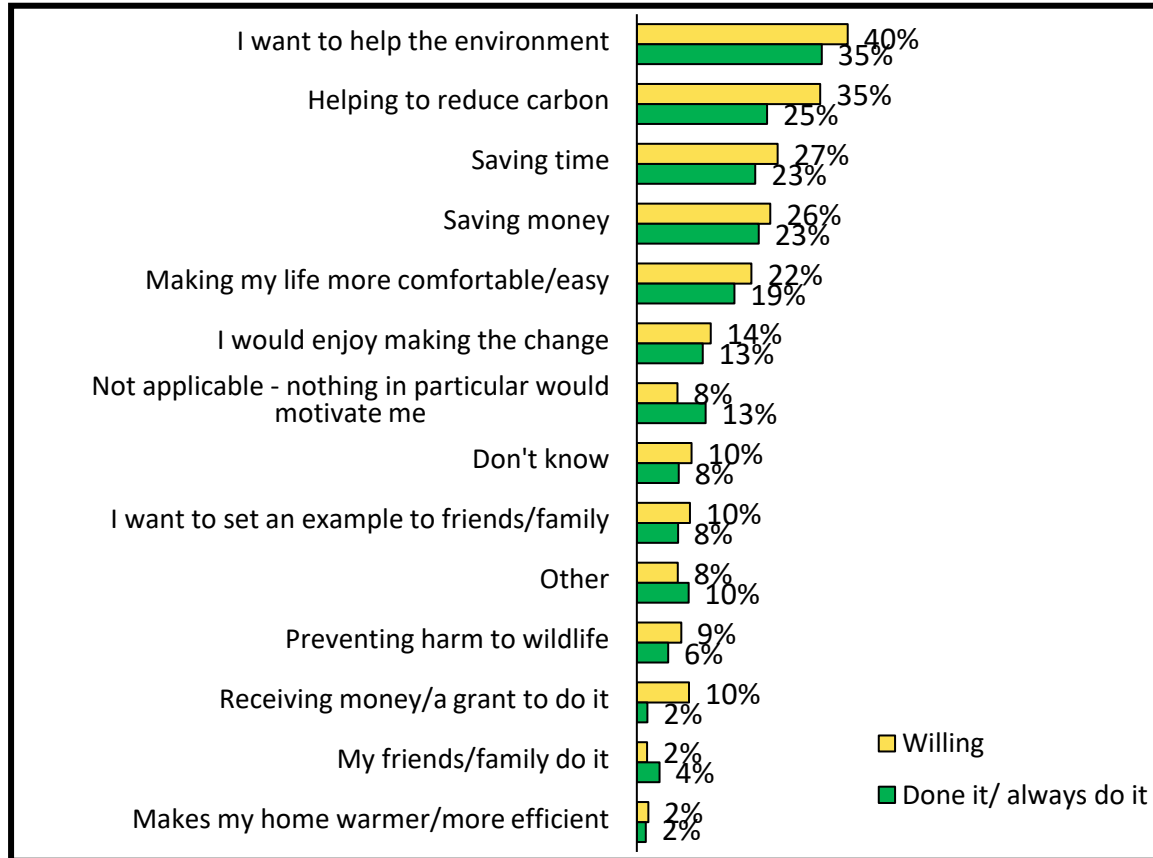
Avoid flights by working from home/conference/video calls



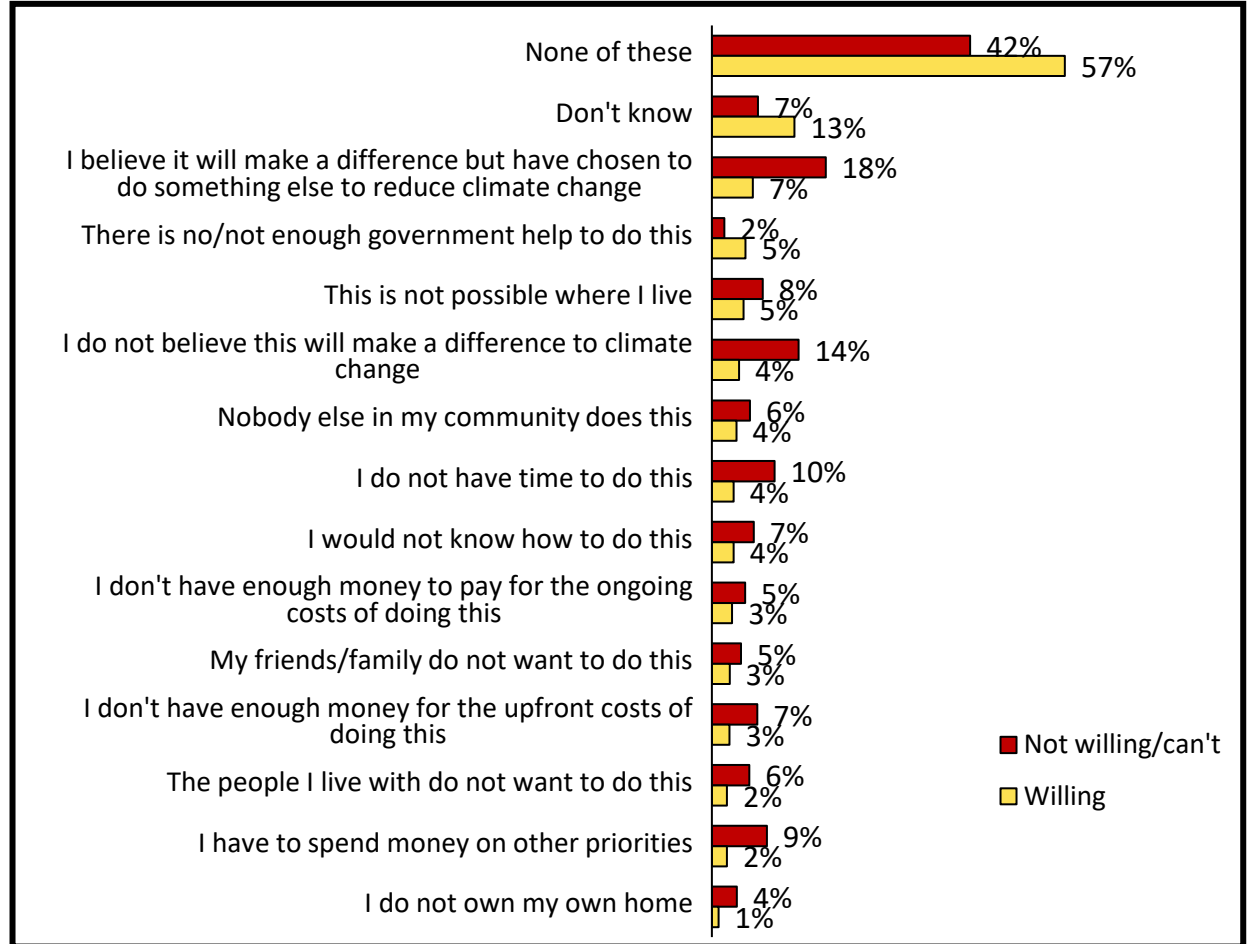
Willingness (Base: 1819)



Key motivations (Base: 443, 721, multi-choice)



Key barriers (Base: 145, 443, multi-choice)



Summary/key points

- Individuals are choosing other ways to reduce climate change due to lack of incentive to do otherwise

Avoid flights by working from home/conference/video calls

Impact of behaviour
change campaign:
Low



What is the most effective practise?

- Make it easy to see the impact of flying
- Identify the most effective communications to tackle known barriers to action

Existing evidence: Low
Level of influence: Medium

Case studies to reduce flights

- 'Flygskam' - flight shame and 'Tagskryt' - train brag is a campaign originating from Sweden to encourage reduction in air travel due to environmental impact. The impact of this campaign on social media through the hashtag #jagstannarpåmarken - #stayontheground is thought to be one of the reasons behind a 3% fall in domestic passenger numbers in 2018 (Sweden, 2019)
- Websites have made it easy to see the impact of flying on climate change by comparing to arctic ice melt and actions that can be done to mitigate effect

References

BBC, [Why 'flight shame' is making people swap planes for trains](https://shameplane.com), 2019
<https://shameplane.com>

Case studies to encourage offsetting flights

- Negative attitudes about carbon offsetting act as a barrier to purchasing. The most effective messages to boost voluntary carbon offsetting that were identified in this study were:
 - Effectiveness message: successful projects which have been implemented with funding raised through voluntary carbon offsets
 - Transparency message: percentage of passengers' contribution on each project was determined
 - Choice message: four projects with pictures and descriptions that the individual could choose to donate to (Australia, 2017)

Sunio & Schmöcker, [Improving carbon offsetting appeals in online airplane ticket purchasing: testing new messages, and using new test methods](#), 2017, Journal of Sustainable Tourism



Action dashboard – Avoid short haul flights by taking the train instead

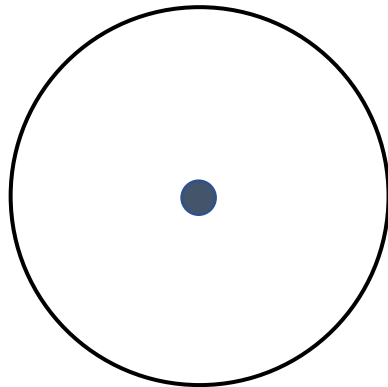
Opportunity size is moderate (6/18 actions)

Willingness is low (35%) and carbon saving is high

Time and money and the key restraints to this action

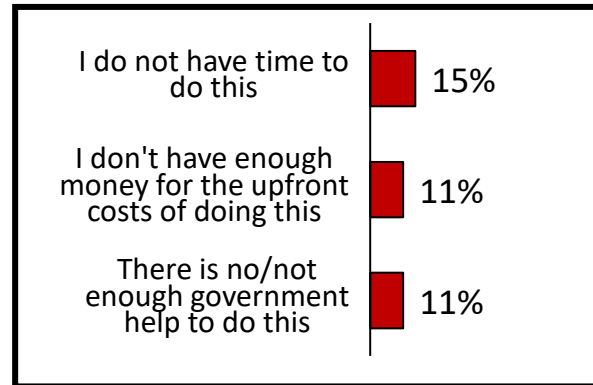
Financially viable alternatives are key

Size of opportunity (outer line reflects largest opportunity)



151.51 million kgCO₂e

Key barriers (Base: 1041)



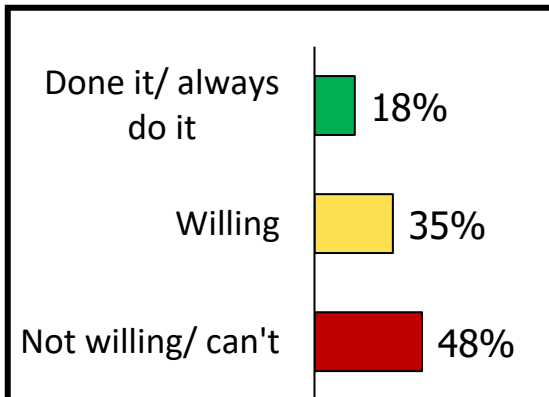
Behaviour change evidence

Impact of behaviour change campaign: Low

Existing evidence: Low

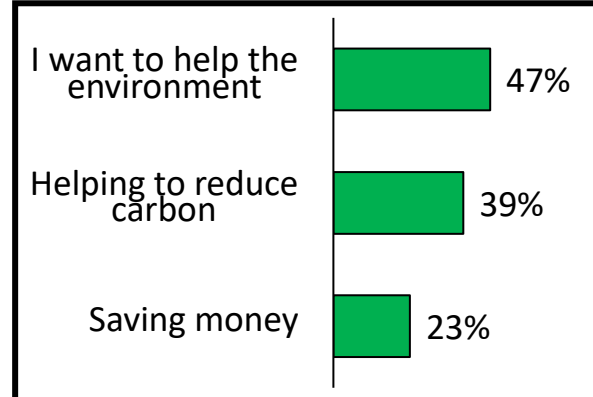
Level of influence: Medium

Willingness (Base: 3024)



Carbon saving for one person taking the action: 294 kgCO₂ equivalent annually

Key motivations (Base: 1041)



Best marketing approach

Financial

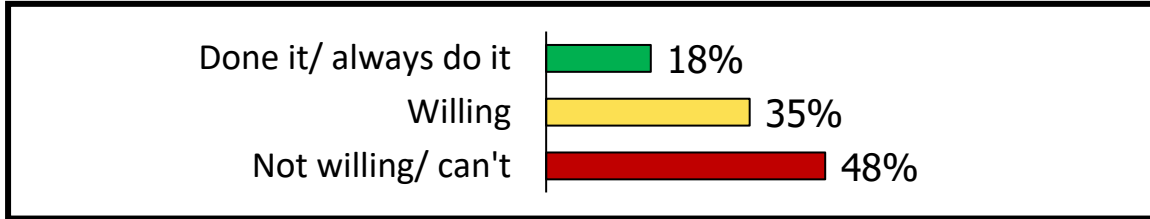
Most linked action

Avoid long haul flights by not travelling internationally

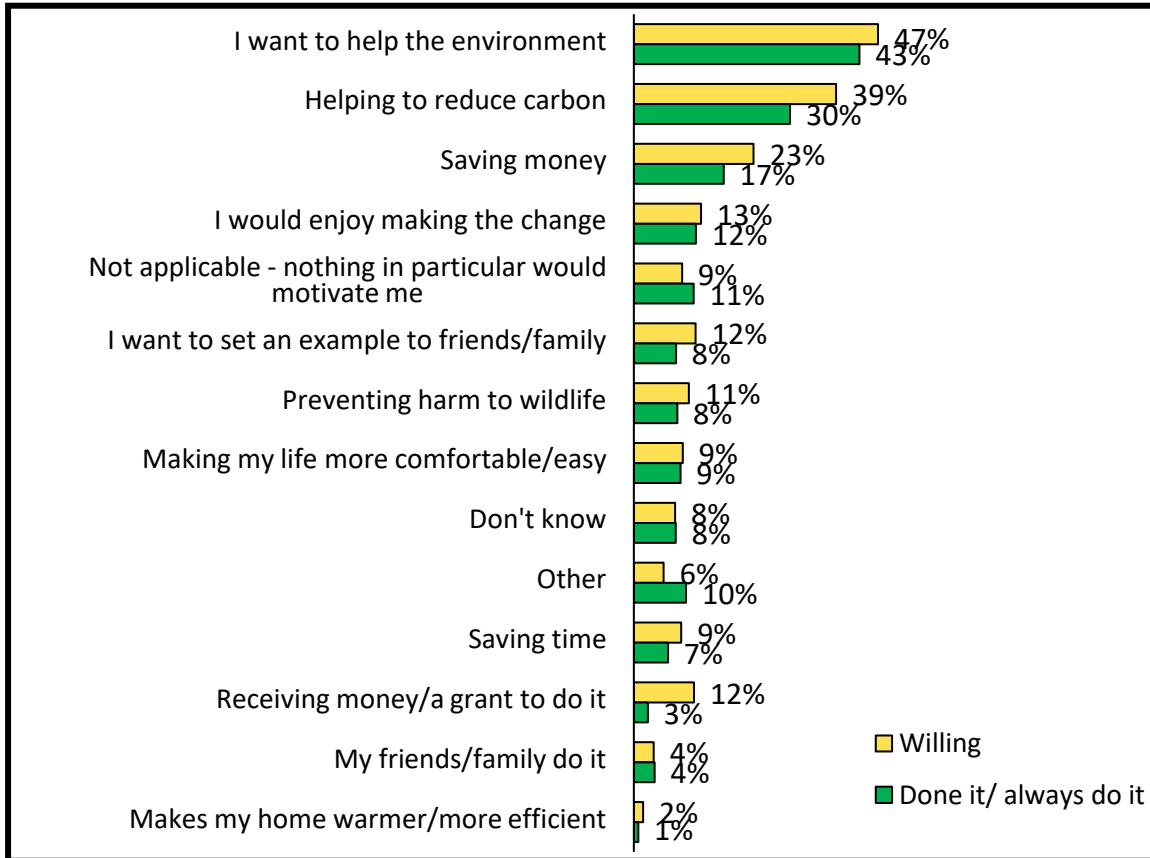


Avoid short haul flights by taking the train instead

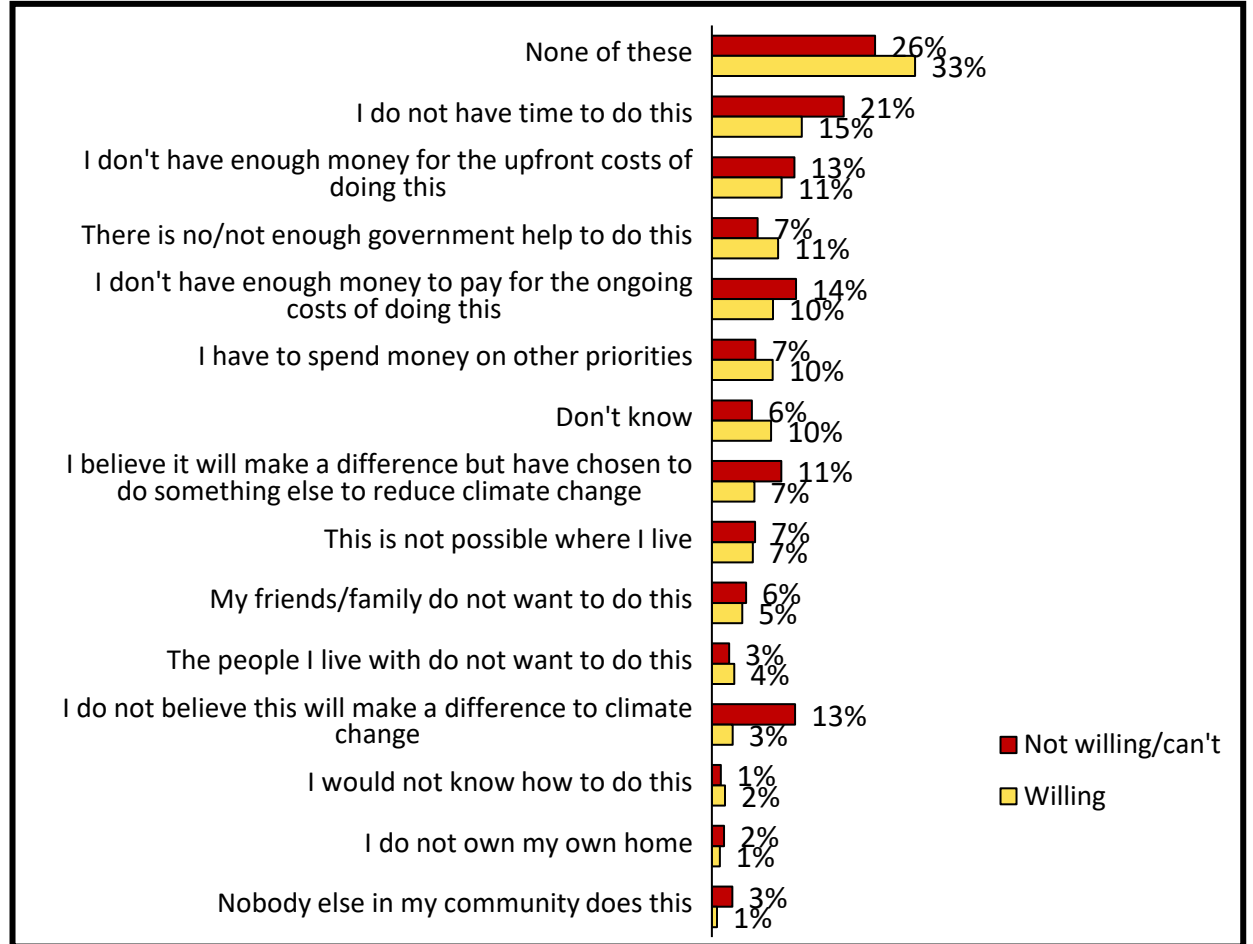
Willingness (Base: 3024)



Key motivations (Base: 1041, 1490, multi-choice)



Key barriers (Base: 502, 1041, multi-choice)



Summary/key points

- Motivations to avoid short haul flights are clearly environmental
- Time, cost and lack of incentive are the most important barriers for the willing

Avoid short haul flights by taking the train

Impact of behaviour
change campaign:
Low



What is the most effective practise?

- Make it easy to see the impact of flying
- Identify the most effective communications to tackle known barriers to action

Existing evidence: Low
Level of influence: Medium

Case studies to reduce flights

- 'Flygskam' - flight shame and 'Tagskryt' - train brag is a campaign originating from Sweden to encourage reduction in air travel due to environmental impact. The impact of this campaign on social media through the hashtag #jagstannarpåmarken - #stayontheground is thought to be one of the reasons behind a 3% fall in domestic passenger numbers in 2018 (Sweden, 2019)
- Websites have made it easy to see the impact of flying on climate change by comparing to arctic ice melt and actions that can be done to mitigate effect

References

BBC, [Why 'flight shame' is making people swap planes for trains](https://shameplane.com), 2019
<https://shameplane.com>

Case studies to encourage offsetting flights

- Negative attitudes about carbon offsetting act as a barrier to purchasing. The most effective messages to boost voluntary carbon offsetting that were identified in this study were:
 - Effectiveness message: successful projects which have been implemented with funding raised through voluntary carbon offsets
 - Transparency message: percentage of passengers' contribution on each project was determined
 - Choice message: four projects with pictures and descriptions that the individual could choose to donate to (Australia, 2017)

Sunio & Schmöcker, [Improving carbon offsetting appeals in online airplane ticket purchasing: testing new messages, and using new test methods](#), 2017, Journal of Sustainable Tourism

Action dashboard – Avoid long haul flights by choosing not to travel internationally



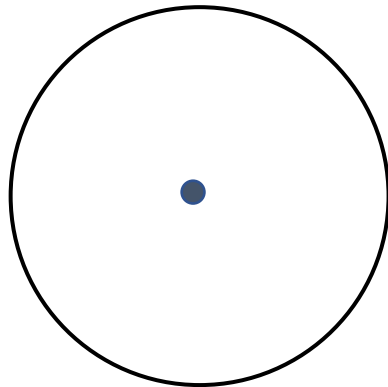
Opportunity size is moderate (8/18 actions)

Willingness is low (26%) and carbon saving is high

Choice is the key element of behaviour change – it often needs unanimity

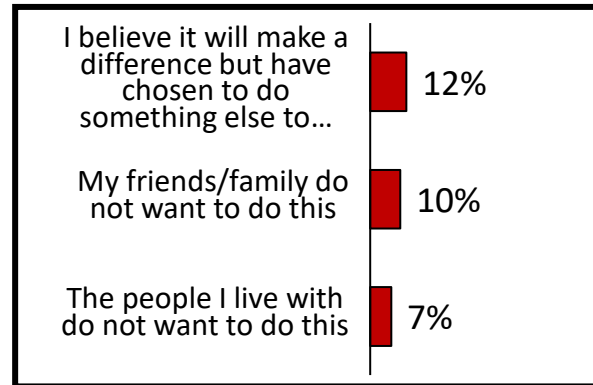
Financially viable alternatives are key

Size of opportunity (outer line reflects largest opportunity)

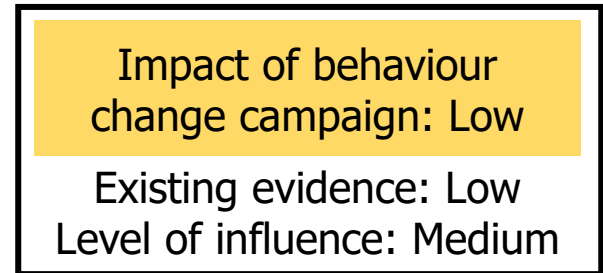


101.54 million kgCO₂e

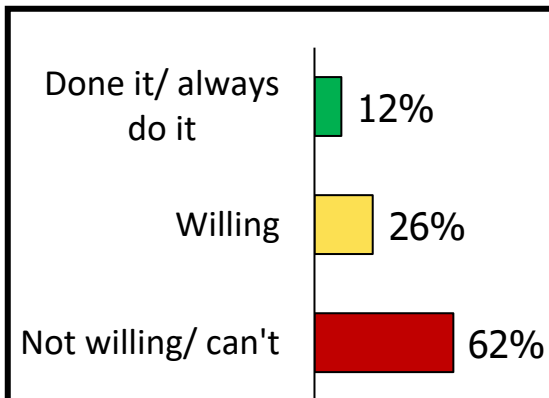
Key barriers (Base: 785)



Behaviour change evidence

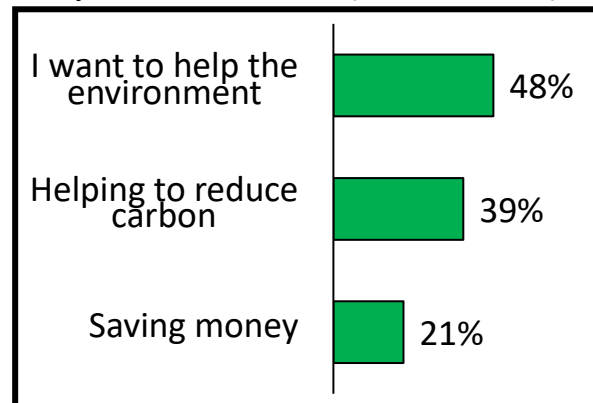


Willingness (Base: 3024)



Carbon saving for one person taking the action:
265 kgCO₂ equivalent annually

Key motivations (Base: 785)



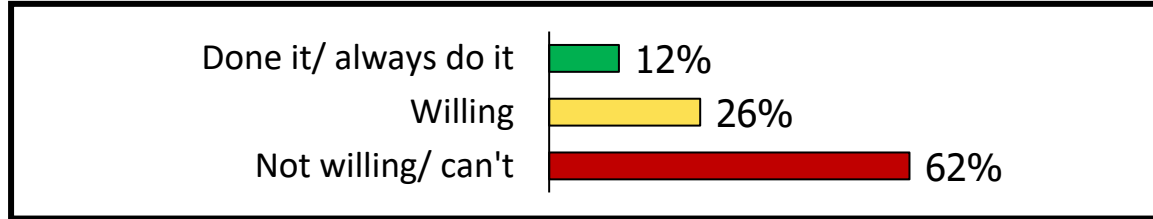
Best marketing approach
Financial

Most linked action
Avoid short haul flights by taking the train instead

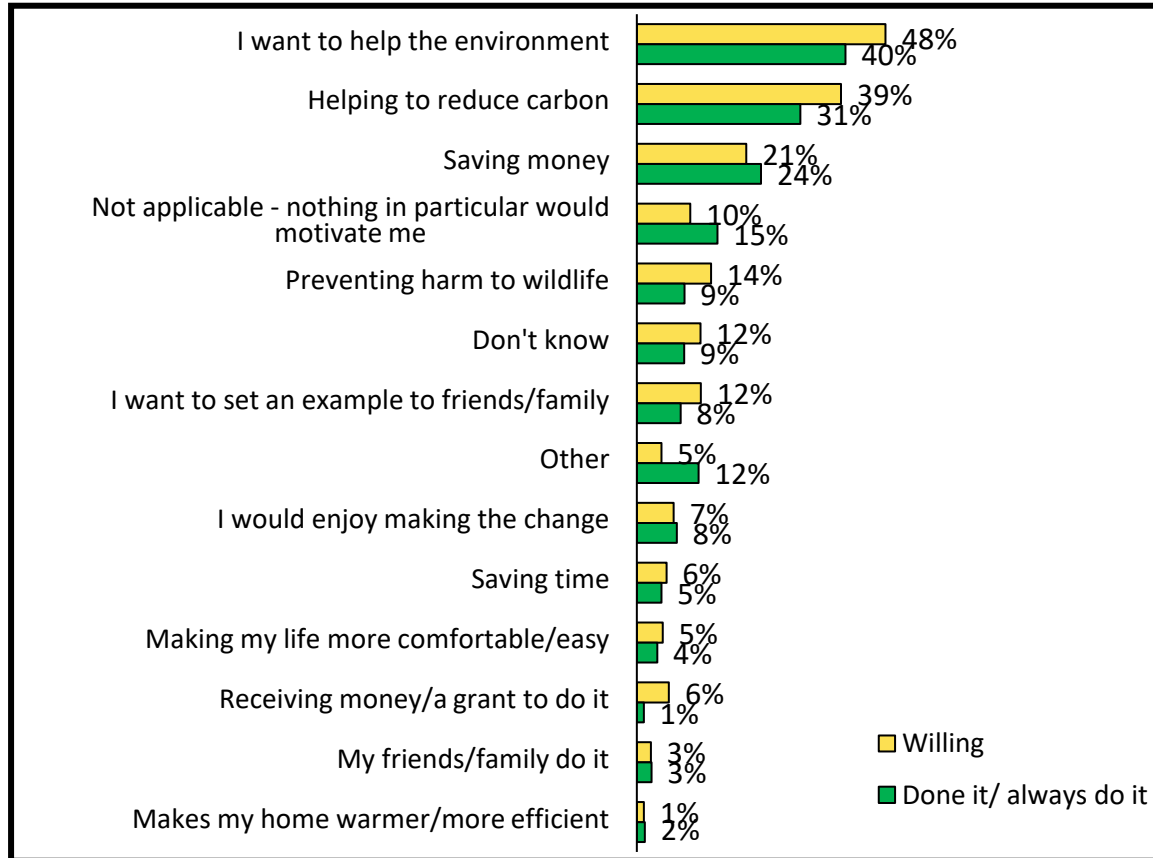


Avoid long haul flights by choosing not to travel internationally

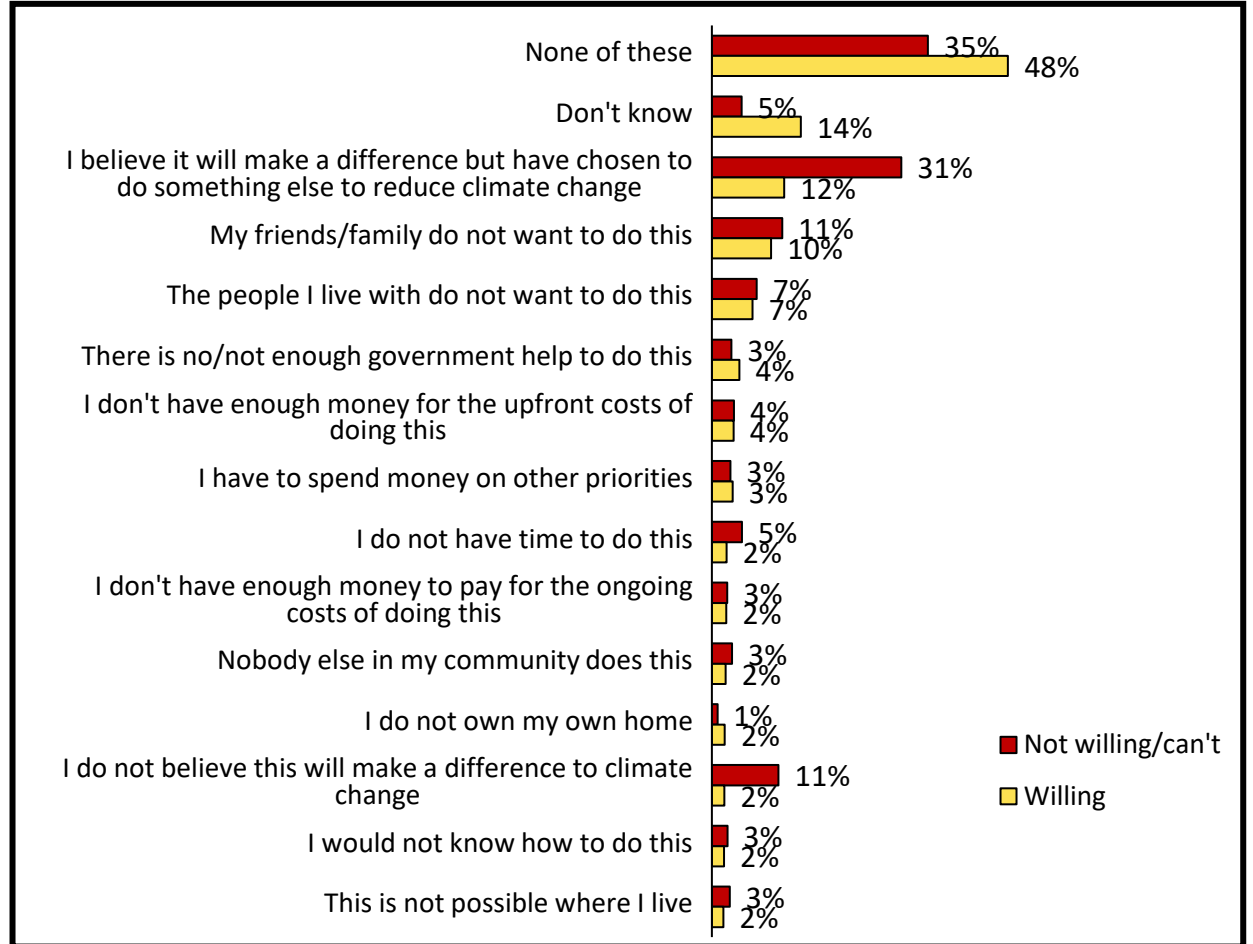
Willingness (Base: 3024)



Key motivations (Base: 785, 1409, multi-choice)



Key barriers (Base: 1189, 785, multi-choice)



Summary/key points

- Choosing alternatives (potentially less impactful) is a key barrier among the unwilling
- Social norms stand as a clear barrier

Avoid international flights by choosing not to travel internationally

Impact of behaviour
change campaign:
Low



What is the most effective practise?

- Make it easy to see the impact of flying
- Identify the most effective communications to tackle known barriers to action

Existing evidence: Low
Level of influence: Medium

Case studies to reduce flights

- 'Flygskam' - flight shame and 'Tagskryt' - train brag is a campaign originating from Sweden to encourage reduction in air travel due to environmental impact. The impact of this campaign on social media through the hashtag #jagstannarpåmarken - #stayontheground is thought to be one of the reasons behind a 3% fall in domestic passenger numbers in 2018 (Sweden, 2019)
- Websites have made it easy to see the impact of flying on climate change by comparing to arctic ice melt and actions that can be done to mitigate effect

References

BBC, [Why 'flight shame' is making people swap planes for trains](https://shameplane.com), 2019
<https://shameplane.com>

Case studies to encourage offsetting flights

- Negative attitudes about carbon offsetting act as a barrier to purchasing. The most effective messages to boost voluntary carbon offsetting that were identified in this study were:
 - Effectiveness message: successful projects which have been implemented with funding raised through voluntary carbon offsets
 - Transparency message: percentage of passengers' contribution on each project was determined
 - Choice message: four projects with pictures and descriptions that the individual could choose to donate to (Australia, 2017)

Sunio & Schmöcker, [Improving carbon offsetting appeals in online airplane ticket purchasing: testing new messages, and using new test methods](#), 2017, Journal of Sustainable Tourism

Action dashboard – Avoid local travel by working from home/ conference/ video calls



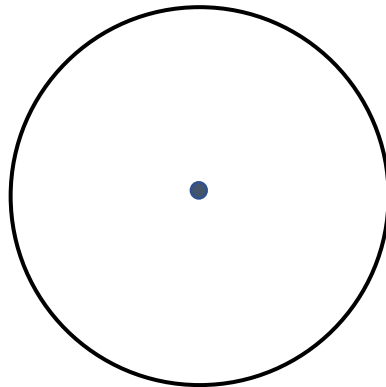
Opportunity size is moderate (12/18 actions)

Willingness is moderate (47%), CO² saving moderate

Motivations are around saving money, time and the environment

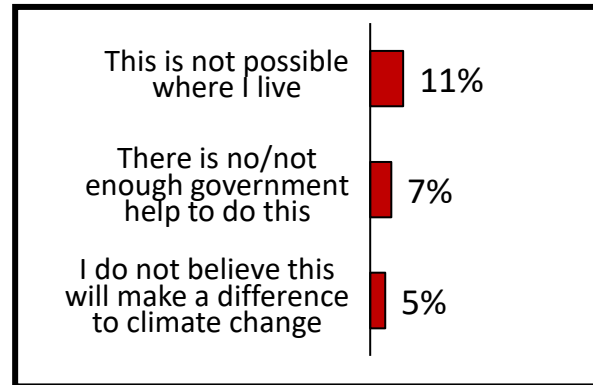
Evidence is weak on the best approach to take

Size of opportunity (outer line reflects largest opportunity)

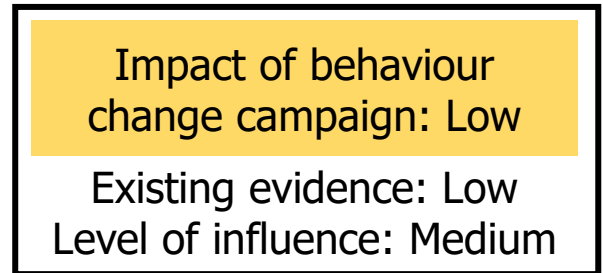


70.59 million kgCO₂e

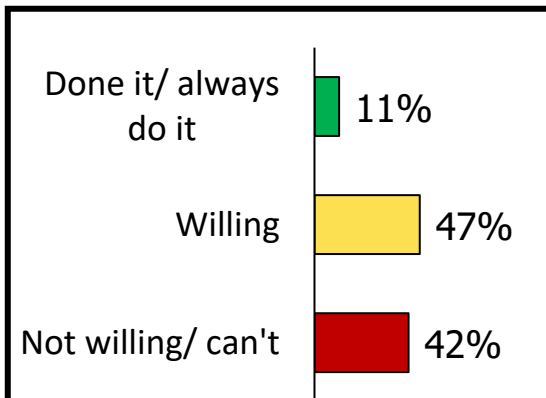
Key barriers (Base: 850)



Behaviour change evidence

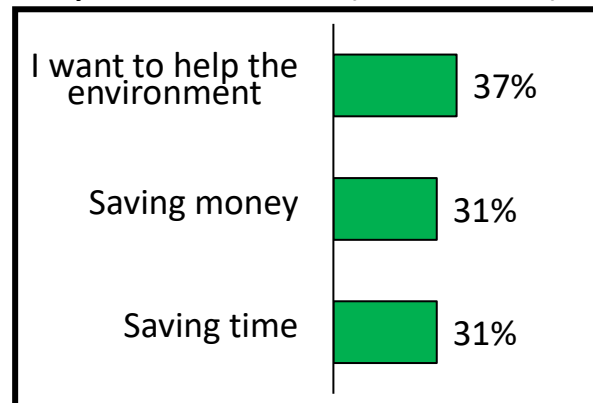


Willingness (Base: 3024)



Carbon saving for one person taking the action: 102 kgCO₂ equivalent annually

Key motivations (Base: 850)



Best marketing approach

Not determined

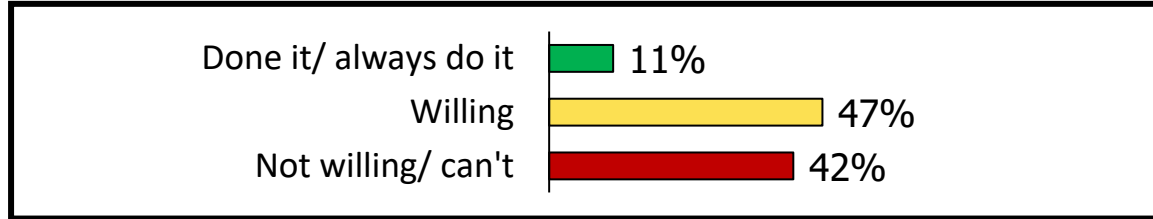
Most linked action

Avoid flights by working at home / conference/ video calls

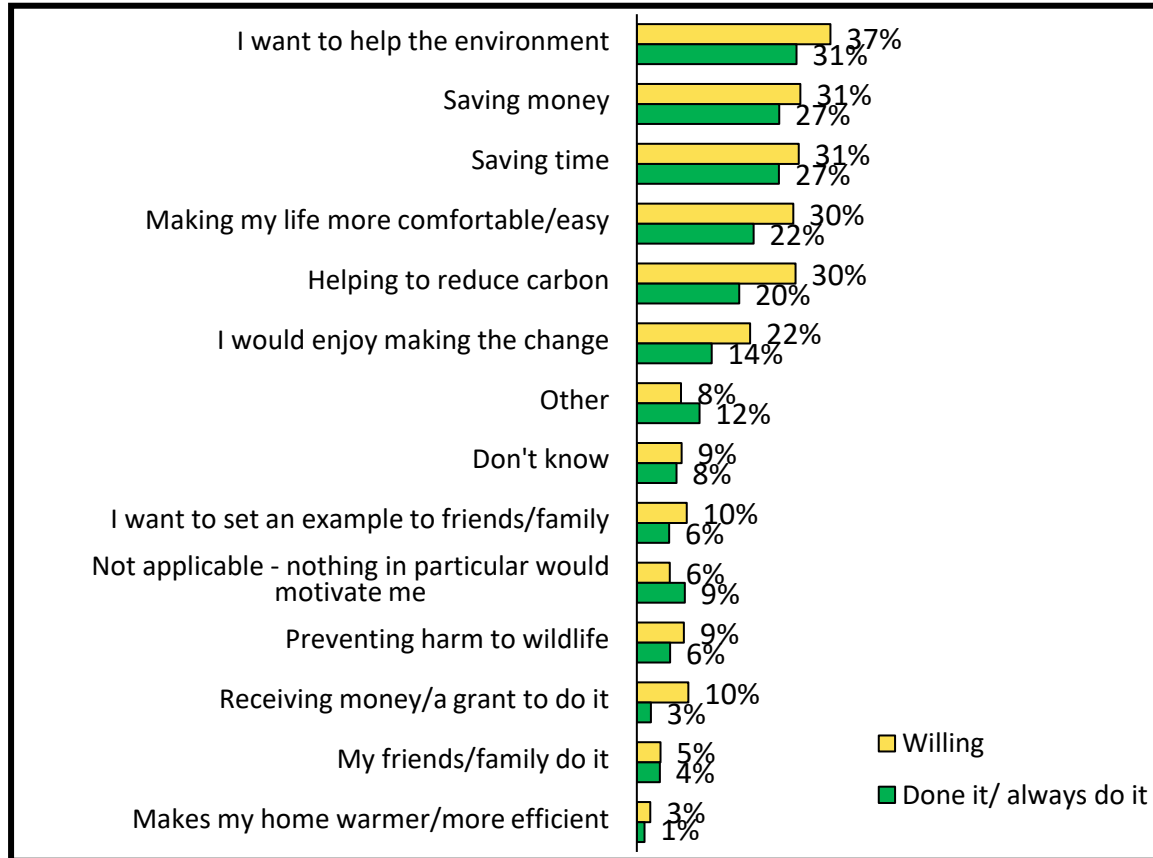


Avoid local travel by working from home/conference/video calls

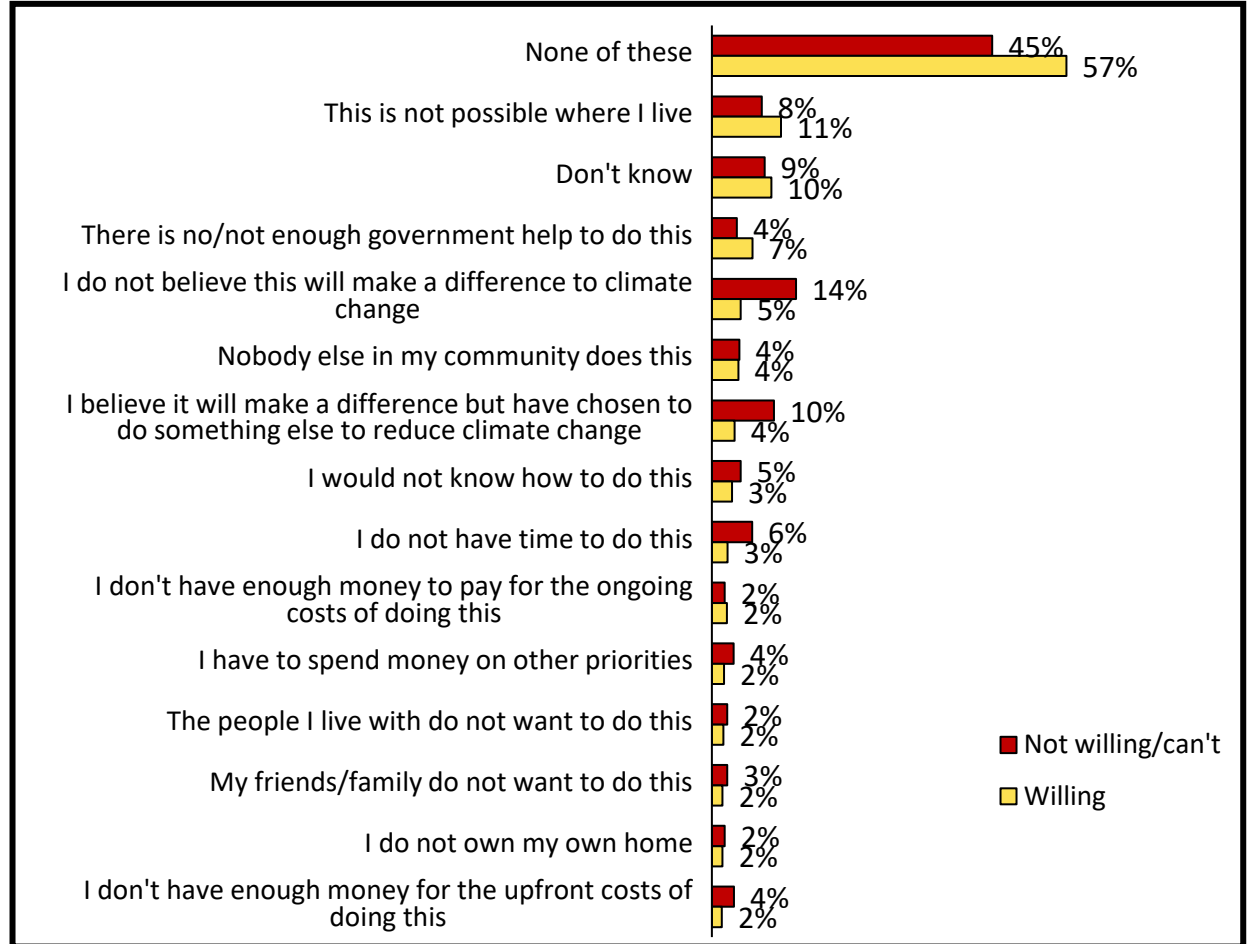
Willingness (Base: 1819)



Key motivations (Base: 850, 1003, multi-choice)



Key barriers (Base: 194, 850, multi-choice)



Summary/key points

- There are many strong motivations to avoid travel by working from home
- (From verbatim analysis) resistance via lack of technology or permission are key barriers. COVID-19 is reducing those barriers

Avoid local travel by working from home/conference/video calls (1)

Impact of behaviour
change campaign:
High



What is the most effective practise?

- Gain quick wins through low-cost interventions e.g. letters and emails with call to actions, testimonials, easy steps to participation and incentives
- Use moments of change to ensure intervention is timely – e.g. use road closures as an opportunity to suggest more sustainable forms of transport

Existing evidence: High
Level of influence: High

Best evidence – Control trial

- Encouraging use of sustainable transport (car sharing, public transport and cycling) for employees at Heathrow. Interventions used:
 - Letters/emails with call to actions, testimonials, opportunity cost made salient, easy steps to participation, matching to other co-workers (car sharing only), free tickets (public transport only) and follow up/reminders
 - Personalised commuter plan
 - 'Try a bike on us' scheme

There was no significant effect of the interventions in the scheme however this could be due to:

- Informal interventions already being conducted in setting, so they were unable to gain 'quick wins'
- Lack of timely interventions (see below)
- Lack of pairing behaviour change with more direct measures such as improvements to infrastructure, incentives and regulation (UK, 2017)

References

[An Evaluation of Low Cost Workplace-Based Interventions to Encourage Use of Sustainable Transport](#), 2017, Behavioural Insights Team

Avoid local travel by working from home/conference/video calls (2)

Impact of behaviour
change campaign:
High



Case study for making information easy to understand

- By displaying fuel efficiency in terms of litres of fuel saved per 100 miles of driving (rather than as an increase in the number of miles per litre of fuel) individuals were able to conceptualise the efficiency of different vehicles and the cost of alternative travel choices more accurately (UK, 2008)

References

Thaler and Sunstein, Nudge: Improving Decisions about Health, Wealth, and Happiness, 2008

Case study: Greener Journeys

- Targeted various groups to reduce driving and promote public transport use:
 - Car drivers
 - targeted 'moments of pain' e.g. parking, petrol stations;
 - targeted those with good bus routes;
 - gave out free vouchers to car drivers. Redeemers of free bus vouchers were 21% more likely to use the bus again in the next few months.
 - Encourage young people to delay driving
 - created a new tool called 'how much does it cost to drive'. Good engagement on social media with 21% agreeing they could do better things with their money after using the tool



[Driving modal shift from car to bus](#), 2013

Case study for using role models

- High profile individuals acting in ways that help to tackle climate change can help to normalise such behaviour. For example, in London the Mayor's vision is for cycling in London to "be a normal part of everyday life, something people hardly think about and feel comfortable doing in ordinary clothes."

<https://www.london.gov.uk/what-we-do/transport/cycling-and-walking/mayors-vision-cycling>

Avoid local travel by working from home/conference/video calls (3)

Impact of behaviour
change campaign:
High



Case studies for timely interventions

- Route choices made by London commuters before and after tube strikes in February 2014 were investigated. More than 5% of commuters changed travel route permanently once normal service resumed (UK, 2014)
- After a major ride to work day event people were more likely to continue riding to work. More than one in four (27%) of those who rode to work for the first time as part of the event were still riding to work five months after the event (Australia, 2007)
- Frequent drivers who changed to public transport during a 8-day freeway closure continued to use public transport more frequently one year after the closure than did those drivers who did not change to public transport during the closure (Japan, 2003)

References

- Larcom et al., [The Benefits of Forced Experimentation: Striking Evidence from the London Underground Network](#), 2017
- Rose & Marfurt, [Travel behaviour change impacts of a major ride to work day event](#), 2007
- Fujii & Garling, [Development of script-based travel mode choice after forced change](#), 2003

Case studies for incentivising travel in off-peak times

- Stanford University offers commuters who arrive at its notoriously congested campus in off-peak times a chance to win cash prizes in a daily lottery (USA, 2015)
- In Bangalore commute times for those leaving after 7:30am are about 1.5-2 times longer than the average commute for those who leave before that time. An incentive scheme called INSTANT rewarded commuters with entries into a weekly raffle according to their arrival time, with less congested arrival times receiving more credits. 14,000 commuters took part and with the number of participants traveling before the peak shifting from 21% to 34% (India, 2009)

- Zhu et al., [Reducing road congestion through incentives: a case study](#), 2015
- [Consuming differently, consuming sustainably: behavioural insights for policymaking](#) 2017, page 33



Action dashboard – Reduce car/taxi use by using public transport

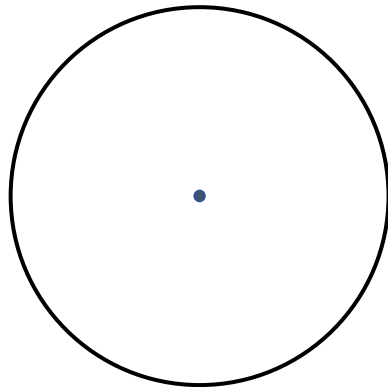
Opportunity size is moderate (13/18 actions)

Willingness is moderate (41%) and carbon saving is low

Having time and being able to do it in the local area are the key barriers

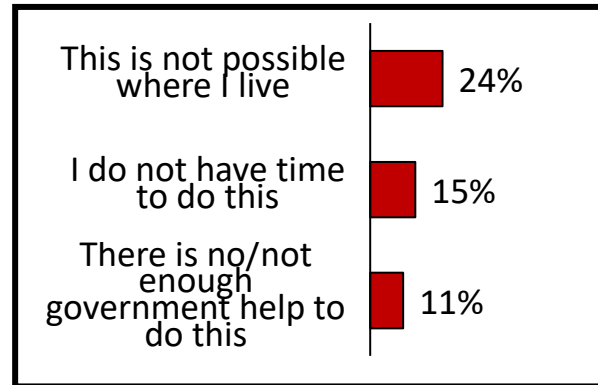
Making it easier or obvious is the best angle to use

Size of opportunity (outer line reflects largest opportunity)

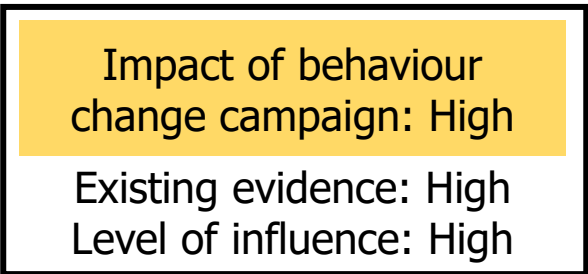


44.67 million kgCO₂e

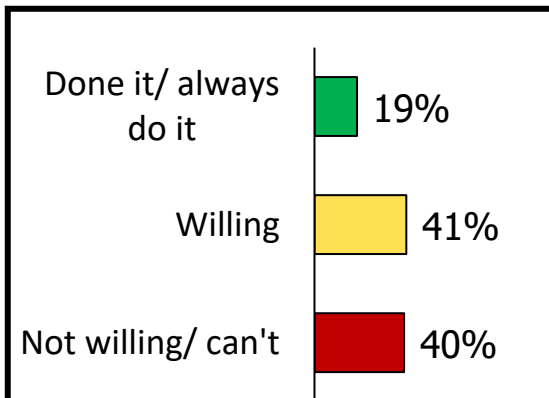
Key barriers (Base: 1233)



Behaviour change evidence

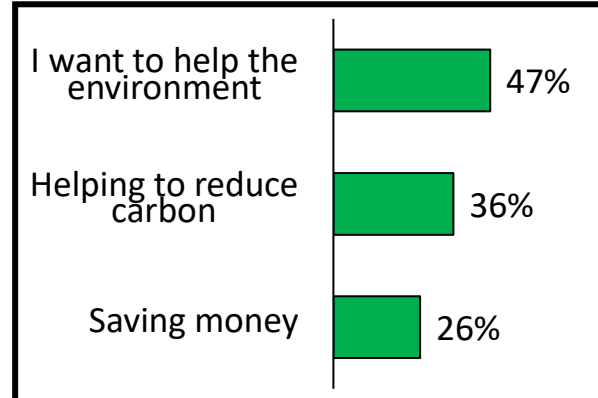


Willingness (Base: 3024)



Carbon saving for one person taking the action: 74 kgCO₂ equivalent annually

Key motivations (Base: 1233)



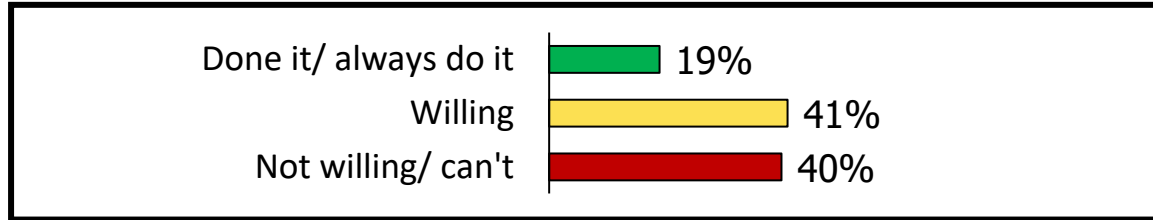
Best marketing approach
Easier

Most linked action
Reduce use by using active transport

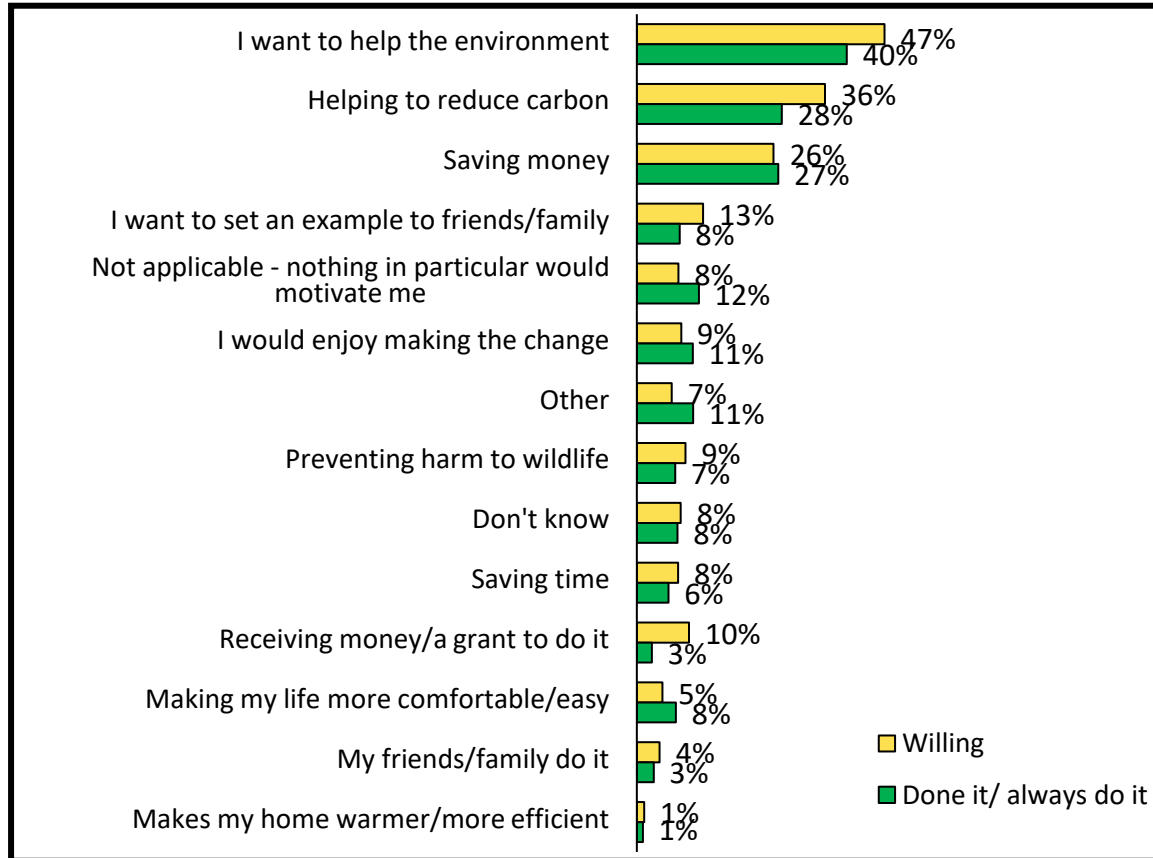


Reduce car/taxi use by using public transport

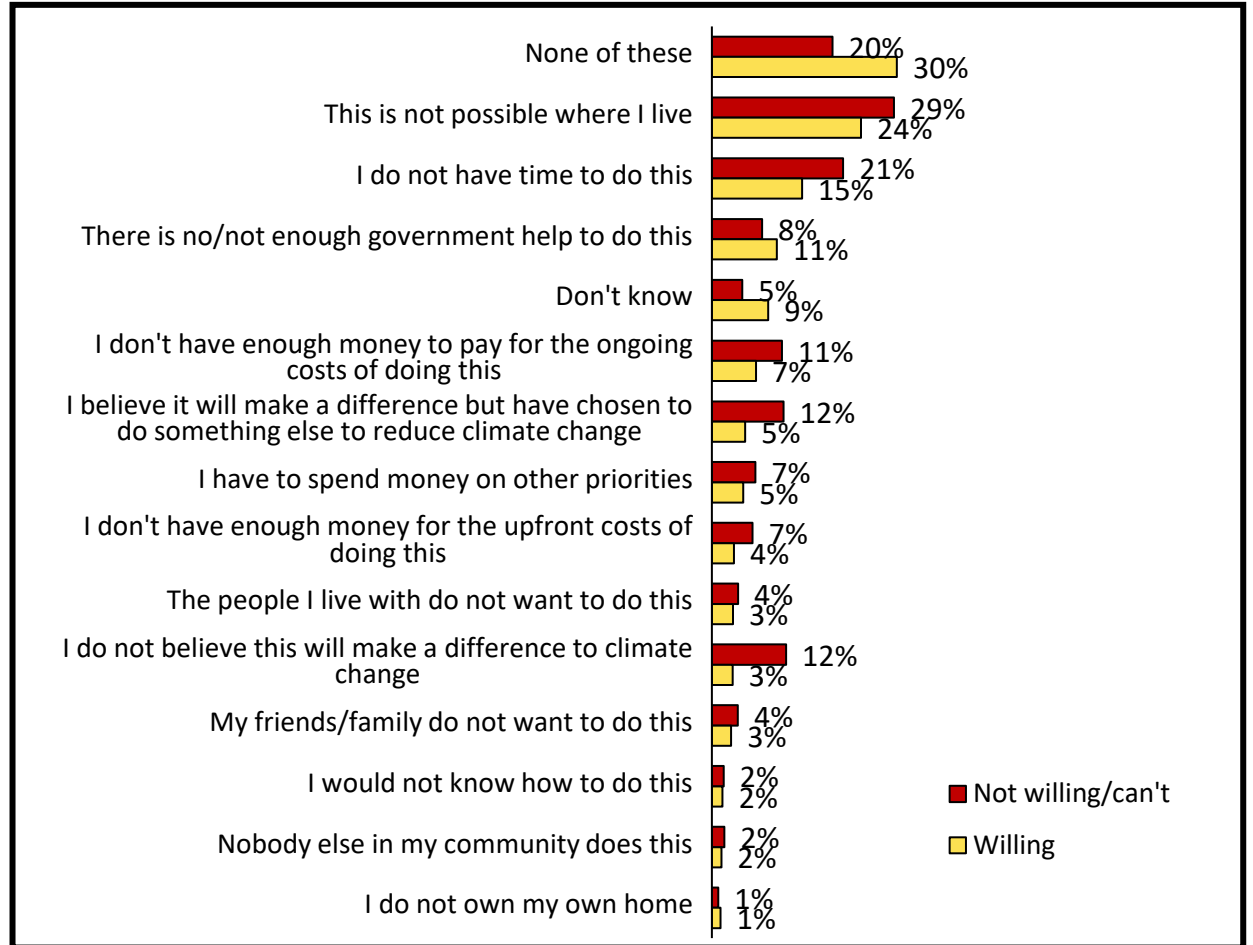
Willingness (Base: 3024)



Key motivations (Base: 1233, 2146, multi-choice)



Key barriers (Base: 935, 1233, multi-choice)



Summary/key points

- Unlocking the ability to take public transport in a time efficient way is the most important factor. Keeping costs low is also key.

Reduce car/taxi use by using public transport (1)

Impact of behaviour
change campaign:
High



What is the most effective practise?

- Gain quick wins through low-cost interventions e.g. letters and emails with call to actions, testimonials, easy steps to participation and incentives
- Use moments of change to ensure intervention is timely – e.g. use road closures as an opportunity to suggest more sustainable forms of transport

Existing evidence: High
Level of influence: High

Best evidence – Control trial

- Encouraging use of sustainable transport (car sharing, public transport and cycling) for employees at Heathrow. Interventions used:
 - Letters/emails with call to actions, testimonials, opportunity cost made salient, easy steps to participation, matching to other co-workers (car sharing only), free tickets (public transport only) and follow up/reminders
 - Personalised commuter plan
 - 'Try a bike on us' scheme

There was no significant effect of the interventions in the scheme however this could be due to:

- Informal interventions already being conducted in setting, so they were unable to gain 'quick wins'
- Lack of timely interventions (see below)
- Lack of pairing behaviour change with more direct measures such as improvements to infrastructure, incentives and regulation (UK, 2017)

References

[An Evaluation of Low Cost Workplace-Based Interventions to Encourage Use of Sustainable Transport](#), 2017, Behavioural Insights Team

Reduce car/taxi use by using public transport (2)

Impact of behaviour
change campaign:
High



Case study for making information easy to understand

- By displaying fuel efficiency in terms of litres of fuel saved per 100 miles of driving (rather than as an increase in the number of miles per litre of fuel) individuals were able to conceptualise the efficiency of different vehicles and the cost of alternative travel choices more accurately (UK, 2008)

References

Thaler and Sunstein, Nudge: Improving Decisions about Health, Wealth, and Happiness, 2008

Case study: Greener Journeys

- Targeted various groups to reduce driving and promote public transport use:
 - Car drivers
 - targeted 'moments of pain' e.g. parking, petrol stations;
 - targeted those with good bus routes;
 - gave out free vouchers to car drivers. Redeemers of free bus vouchers were 21% more likely to use the bus again in the next few months.
 - Encourage young people to delay driving
 - created a new tool called 'how much does it cost to drive'. Good engagement on social media with 21% agreeing they could do better things with their money after using the tool



[Driving modal shift from car to bus](#), 2013

Case study for using role models

- High profile individuals acting in ways that help to tackle climate change can help to normalise such behaviour. For example, in London the Mayor's vision is for cycling in London to "be a normal part of everyday life, something people hardly think about and feel comfortable doing in ordinary clothes."

<https://www.london.gov.uk/what-we-do/transport/cycling-and-walking/mayors-vision-cycling>

Reduce car/taxi use by using public transport (3)

Impact of behaviour
change campaign:
High



Case studies for timely interventions

- Route choices made by London commuters before and after tube strikes in February 2014 were investigated. More than 5% of commuters changed travel route permanently once normal service resumed (UK, 2014)
- After a major ride to work day event people were more likely to continue riding to work. More than one in four (27%) of those who rode to work for the first time as part of the event were still riding to work five months after the event (Australia, 2007)
- Frequent drivers who changed to public transport during a 8-day freeway closure continued to use public transport more frequently one year after the closure than did those drivers who did not change to public transport during the closure (Japan, 2003)

References

- Larcom et al., [The Benefits of Forced Experimentation: Striking Evidence from the London Underground Network](#), 2017
- Rose & Marfurt, [Travel behaviour change impacts of a major ride to work day event](#), 2007
- Fujii & Garling, [Development of script-based travel mode choice after forced change](#), 2003

Case studies for incentivising travel in off-peak times

- Stanford University offers commuters who arrive at its notoriously congested campus in off-peak times a chance to win cash prizes in a daily lottery (USA, 2015)
- In Bangalore commute times for those leaving after 7:30am are about 1.5-2 times longer than the average commute for those who leave before that time. An incentive scheme called INSTANT rewarded commuters with entries into a weekly raffle according to their arrival time, with less congested arrival times receiving more credits. 14,000 commuters took part and with the number of participants traveling before the peak shifting from 21% to 34% (India, 2009)

- Zhu et al., [Reducing road congestion through incentives: a case study](#), 2015
- [Consuming differently, consuming sustainably: behavioural insights for policymaking](#) 2017, page 33



Action dashboard – Reduce car/taxi use by using active forms of transport

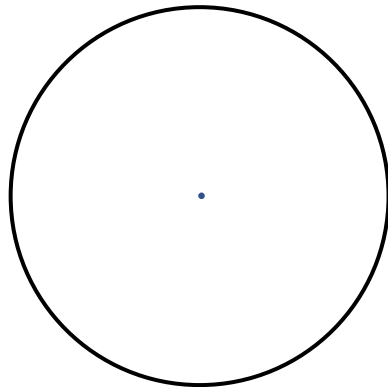
Opportunity size is in the bottom 5 (16/18 actions)

Willingness is moderate (48%) and carbon saving is low

Having time and being able to do it in the local area are the key barriers

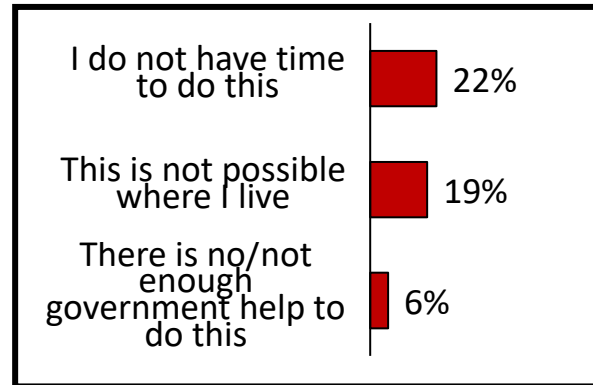
Making it easier or obvious is the best angle to use

Size of opportunity (outer line reflects largest opportunity)

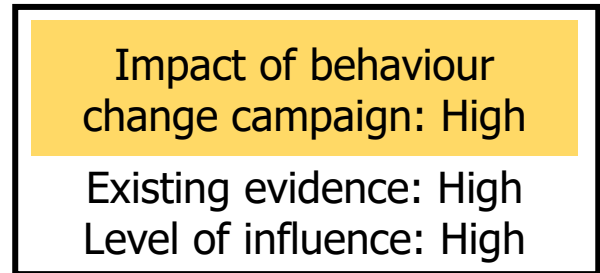


15.55 million kgCO₂e

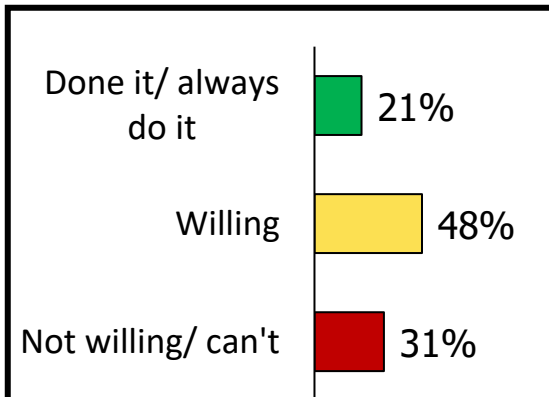
Key barriers (Base: 1461)



Behaviour change evidence

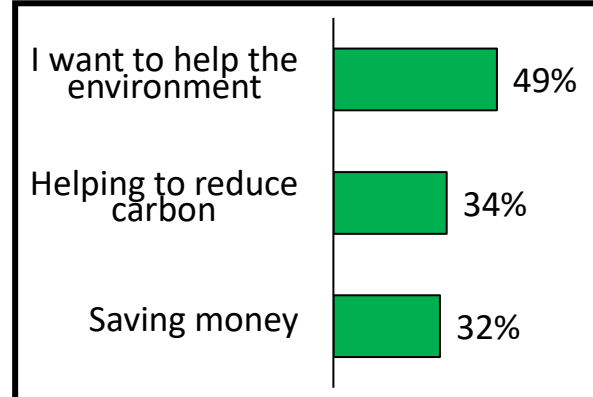


Willingness (Base: 3024)



Carbon saving for one person taking the action: 22 kgCO₂ equivalent annually

Key motivations (Base: 1461)



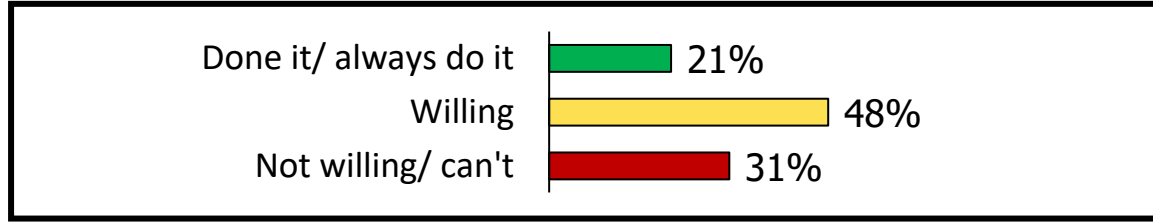
Best marketing approach
Easier

Most linked action
Reduce use by using public transport

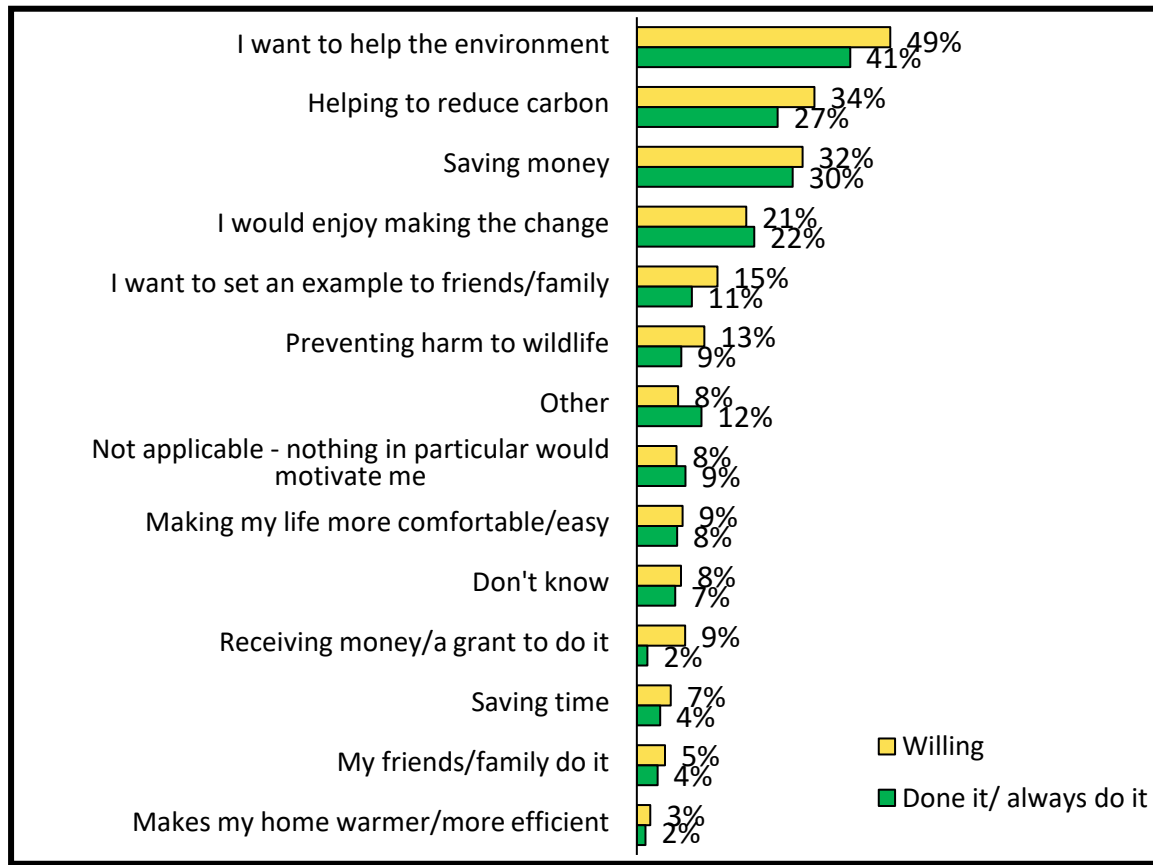


Reduce car/taxi use by using active forms of transport (e.g. walking, cycling)

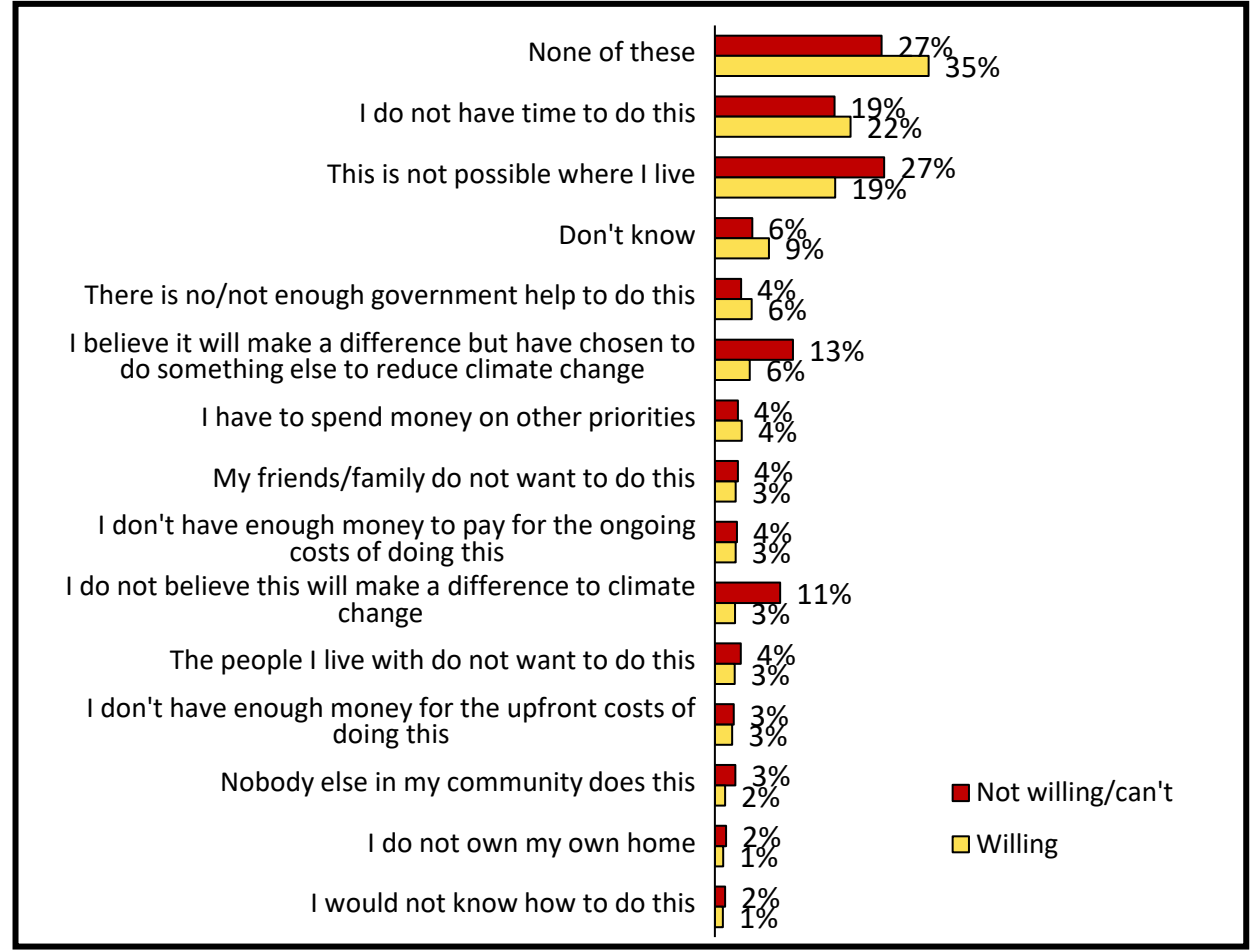
Willingness (Base: 3024)



Key motivations (Base: 1461, 2427, multi-choice)



Key barriers (Base: 710, 1461, multi-choice)



Summary/key points

- Environmental concerns (tempered by time) are key to converting the willing
- Promote local walking and cycling routes with clear timings

Reduce car/taxi use by using active forms of transport (1)

Impact of behaviour
change campaign:
High



What is the most effective practise?

- Gain quick wins through low-cost interventions e.g. letters and emails with call to actions, testimonials, easy steps to participation and incentives
- Use moments of change to ensure intervention is timely – e.g. use road closures as an opportunity to suggest more sustainable forms of transport

Existing evidence: High
Level of influence: High

Best evidence – Control trial

- Encouraging use of sustainable transport (car sharing, public transport and cycling) for employees at Heathrow. Interventions used:
 - Letters/emails with call to actions, testimonials, opportunity cost made salient, easy steps to participation, matching to other co-workers (car sharing only), free tickets (public transport only) and follow up/reminders
 - Personalised commuter plan
 - 'Try a bike on us' scheme

There was no significant effect of the interventions in the scheme however this could be due to:

- Informal interventions already being conducted in setting, so they were unable to gain 'quick wins'
- Lack of timely interventions (see below)
- Lack of pairing behaviour change with more direct measures such as improvements to infrastructure, incentives and regulation (UK, 2017)

References

[An Evaluation of Low Cost Workplace-Based Interventions to Encourage Use of Sustainable Transport](#), 2017, Behavioural Insights Team

Reduce car/taxi use by using active forms of transport (2)

Impact of behaviour
change campaign:
High



Case study for making information easy to understand

- By displaying fuel efficiency in terms of litres of fuel saved per 100 miles of driving (rather than as an increase in the number of miles per litre of fuel) individuals were able to conceptualise the efficiency of different vehicles and the cost of alternative travel choices more accurately (UK, 2008)

References

Thaler and Sunstein, Nudge: Improving Decisions about Health, Wealth, and Happiness, 2008

Case study: Greener Journeys

- Targeted various groups to reduce driving and promote public transport use:
 - Car drivers
 - targeted 'moments of pain' e.g. parking, petrol stations;
 - targeted those with good bus routes;
 - gave out free vouchers to car drivers. Redeemers of free bus vouchers were 21% more likely to use the bus again in the next few months.
 - Encourage young people to delay driving
 - created a new tool called 'how much does it cost to drive'. Good engagement on social media with 21% agreeing they could do better things with their money after using the tool



[Driving modal shift from car to bus](#), 2013

Case study for using role models

- High profile individuals acting in ways that help to tackle climate change can help to normalise such behaviour. For example, in London the Mayor's vision is for cycling in London to "be a normal part of everyday life, something people hardly think about and feel comfortable doing in ordinary clothes."

<https://www.london.gov.uk/what-we-do/transport/cycling-and-walking/mayors-vision-cycling>

Reduce car/taxi use by using active forms of transport (3)

Impact of behaviour
change campaign:
High



Case studies for timely interventions

- Route choices made by London commuters before and after tube strikes in February 2014 were investigated. More than 5% of commuters changed travel route permanently once normal service resumed (UK, 2014)
- After a major ride to work day event people were more likely to continue riding to work. More than one in four (27%) of those who rode to work for the first time as part of the event were still riding to work five months after the event (Australia, 2007)
- Frequent drivers who changed to public transport during an 8-day freeway closure continued to use public transport more frequently one year after the closure than did those drivers who did not change to public transport during the closure (Japan, 2003)

References

- Larcom et al., [The Benefits of Forced Experimentation: Striking Evidence from the London Underground Network](#), 2017
- Rose & Marfurt, [Travel behaviour change impacts of a major ride to work day event](#), 2007
- Fujii & Garling, [Development of script-based travel mode choice after forced change](#), 2003

Case studies for incentivising travel in off-peak times

- Stanford University offers commuters who arrive at its notoriously congested campus in off-peak times a chance to win cash prizes in a daily lottery (USA, 2015)
- In Bangalore commute times for those leaving after 7:30am are about 1.5-2 times longer than the average commute for those who leave before that time. An incentive scheme called INSTANT rewarded commuters with entries into a weekly raffle according to their arrival time, with less congested arrival times receiving more credits. 14,000 commuters took part and with the number of participants traveling before the peak shifting from 21% to 34% (India, 2009)

- Zhu et al., [Reducing road congestion through incentives: a case study](#), 2015
- [Consuming differently, consuming sustainably: behavioural insights for policymaking](#) 2017, page 33

Action summaries – Sustainable food



Area summary: Sustainable food



Reduce food waste

Opportunity Size
(millions of kg CO2 annually)

136

Willingness to take action	Ease of Behaviour change	Level of influence
40%	Medium	Medium

What evidence suggests you should do...

Environmental restructuring. Use of social norms. Information provision



Reduce meat consumption

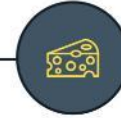
Opportunity Size
(millions of kg CO2 annually)

84

Willingness to take action	Ease of Behaviour change	Level of influence
38%	High	Medium

What evidence suggests you should do...

Environmental restructuring to promote reduced meat/dairy consumption. Promoting self-monitoring and self-regulation.



Reduce dairy consumption

Opportunity Size
(millions of kg CO2 annually)

76

Willingness to take action	Ease of Behaviour change	Level of influence
38%	High	Medium

What evidence suggests you should do...

Environmental restructuring to promote reduced meat/dairy consumption. Promoting self-monitoring and self-regulation.



Buy locally produced food

Opportunity Size
(millions of kg CO2 annually)

17

Willingness to take action	Ease of Behaviour change	Level of influence
78%	Medium	Medium

What evidence suggests you should do...

Make 'locally produced' labels salient when food shopping. Make it easy e.g. promoting 'rules of thumb'. Role models



Make ethical food choices

Willingness to take action	Ease of Behaviour change	Level of influence
66%	Medium	Medium

What evidence suggests you should do...

Promote knowledge, social norms and availability.

Action dashboard – Reduce food waste



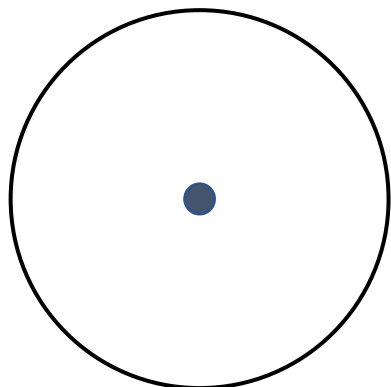
Opportunity size is moderate (7/18 actions)

Willingness is moderate (40%), CO² saving is high

Few acknowledged barriers and a desire to help the environment

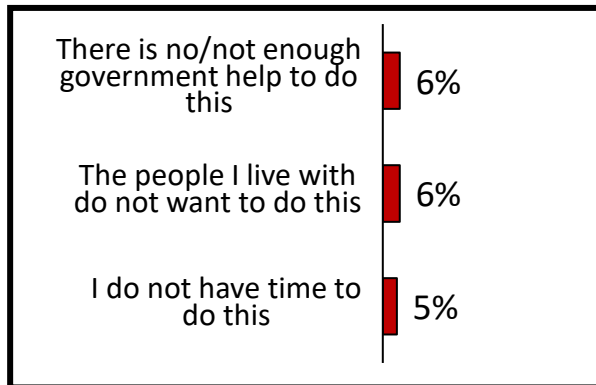
Research shows overconfidence in how well people reduce waste

Size of opportunity (outer line reflects largest opportunity)



135.46 million kgCO²e

Key barriers (Base: 1187)



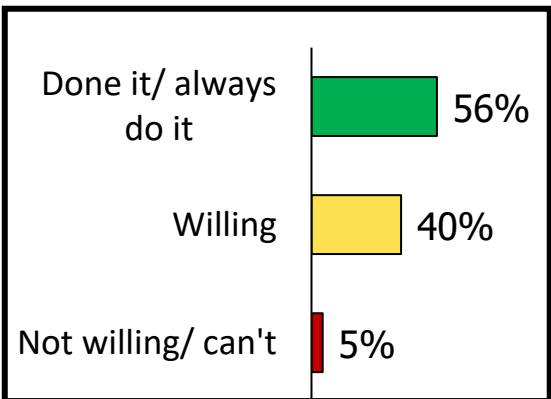
Behaviour change evidence

Impact of behaviour change campaign: Medium

Existing evidence: High

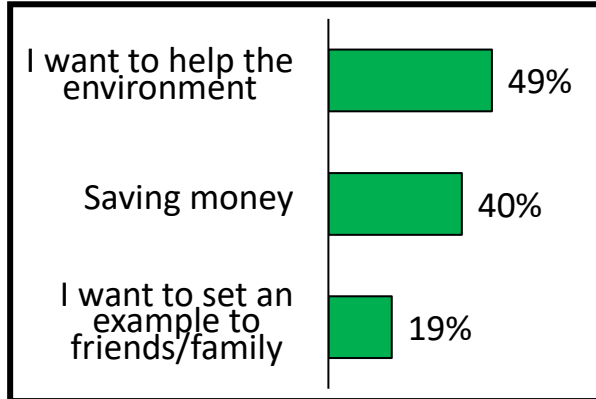
Level of influence: Medium

Willingness (Base: 3024)



Carbon saving for one person taking the action: 230 kgCO² equivalent annually

Key motivations (Base: 1187)



Best marketing approach

Not determined

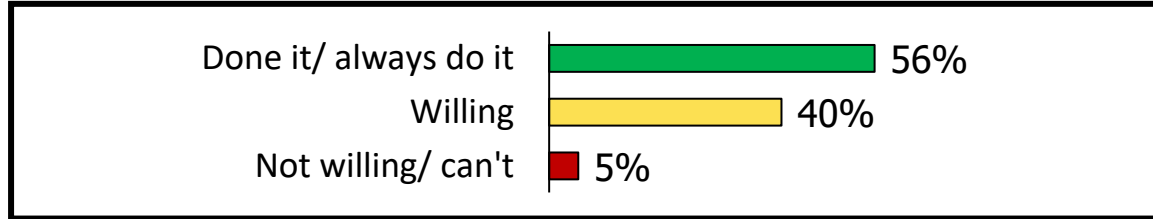
Most linked action

Reduce use of plastics

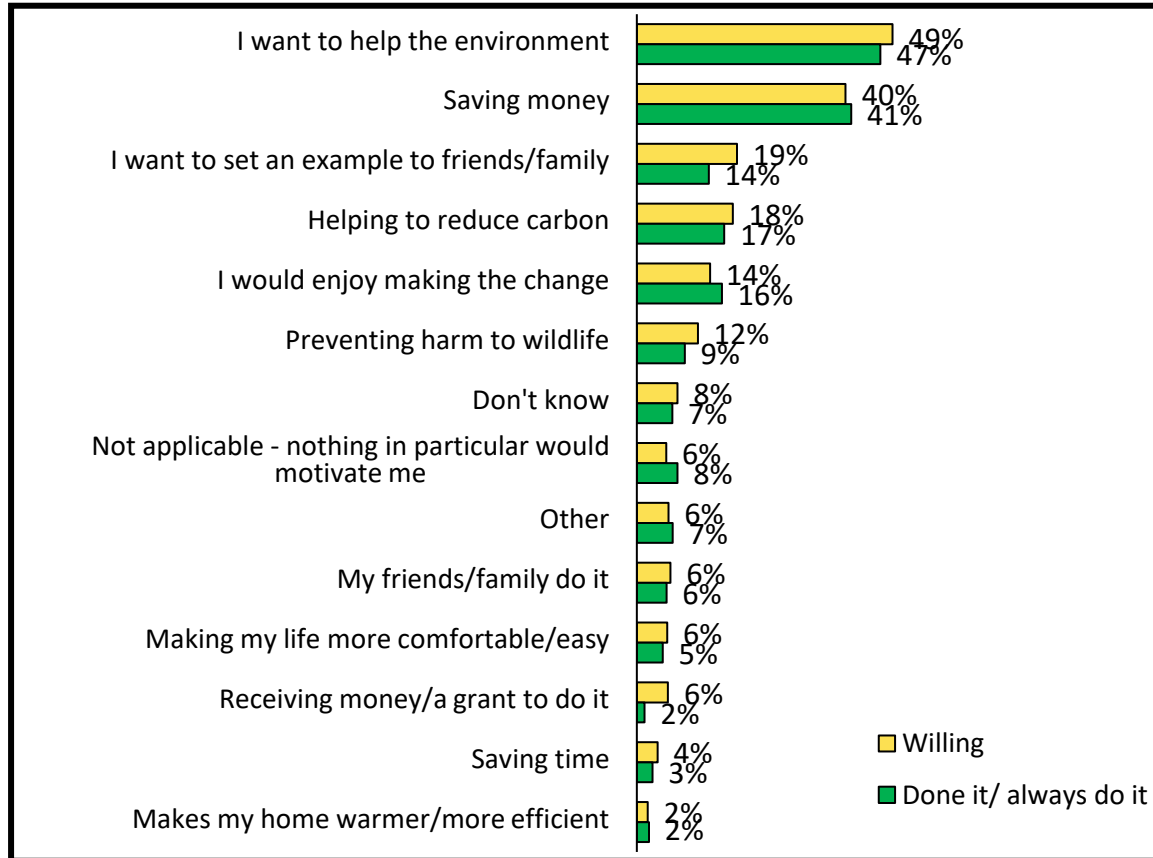
Reduce food waste



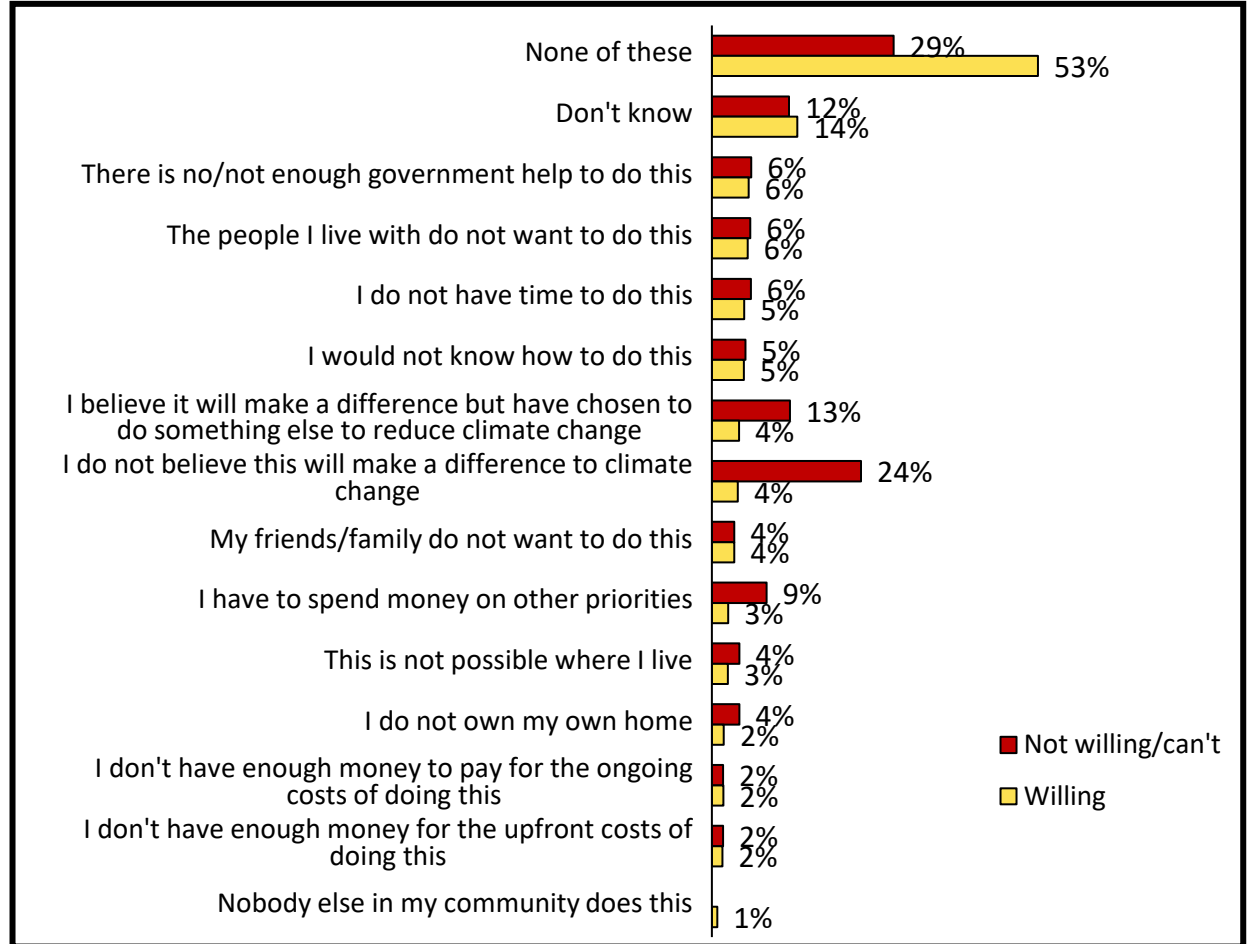
Willingness (Base: 3024)



Key motivations (Base: 1187, 2930, multi-choice)



Key barriers (Base: 109, 1187, multi-choice)



Summary/key points

- There is a high level of willingness to reduce food waste – the barrier may be detailed knowledge of what food waste is (insight from desk research)

Reduce food waste

Impact of behaviour
change campaign:
Medium



What is the most effective practise?

- Environmental restructuring, use of social norms and information

Existing evidence: High
Level of influence: Medium

Best evidence – Meta-analysis

- Plate size interventions resulted in up to 57% food waste reduction.
- Changing nutritional guidelines in schools reduced vegetable waste by up to 28%.
- Information campaigns had up to 28% food waste reduction.
- Other intervention types had little or no robust evidence provided.
- A greater number of longitudinal, larger sample size interventions are required (UK, 2019)

Reference

Reynolds et al., [Review: Consumption-stage food waste reduction interventions – What works and how to design better interventions](#), 2019

Best evidence - control trial

- Two simple and nonintrusive 'nudges' reduce the amount of food waste in hotel restaurants by around 20%
 - Physical cue: typical buffet plates were replaced by smaller-sized plates.
 - Social cue: Sign hung up: "Welcome back! Again! And again! Visit our buffet many times. That's better than taking a lot at once."

Reference

Kallbekken & Sælen, ['Nudging' hotel guests to reduce food waste as a win-win environmental measure](#), 2013, Economics Letters



Action dashboard – Reduce meat consumption

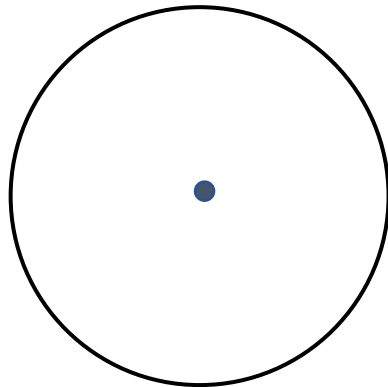
Opportunity size is moderate (9/18 actions)

Willingness is moderate (38%), CO² saving moderate

Social pressure and choosing alternative actions are key barriers

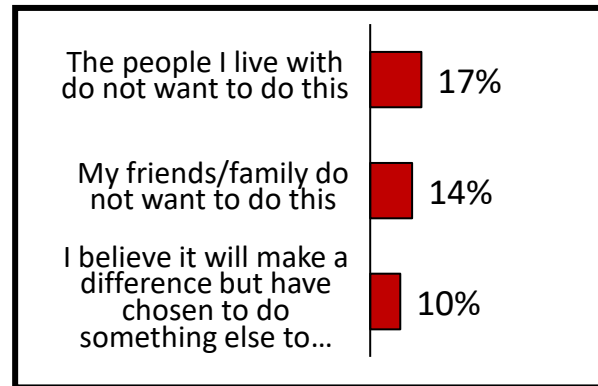
Health is a good angle to approach this action – dairy action is linked

Size of opportunity (outer line reflects largest opportunity)

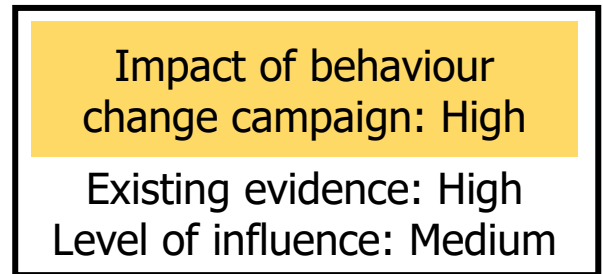


84.46 million kgCO₂e

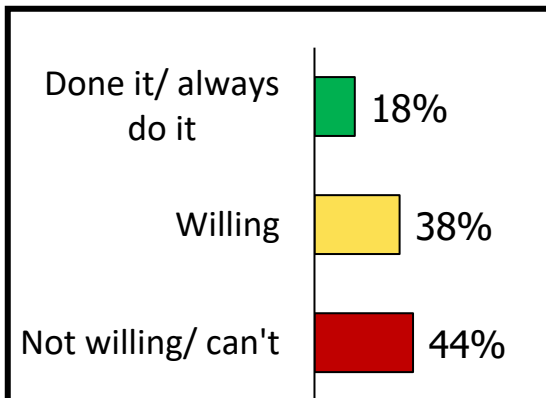
Key barriers (Base: 1150)



Behaviour change evidence

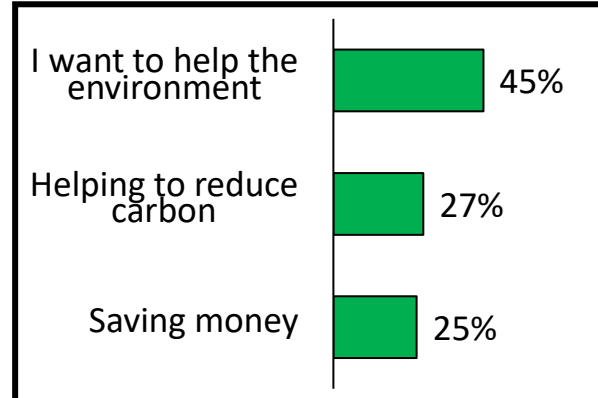


Willingness (Base: 3024)



Carbon saving for one person taking the action: 150.95 kgCO₂ equivalent annually

Key motivations (Base: 1150)



Best marketing approach

Health

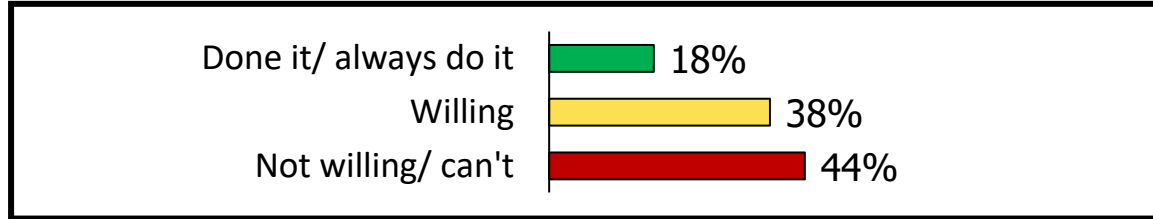
Most linked action

Reduce dairy consumption

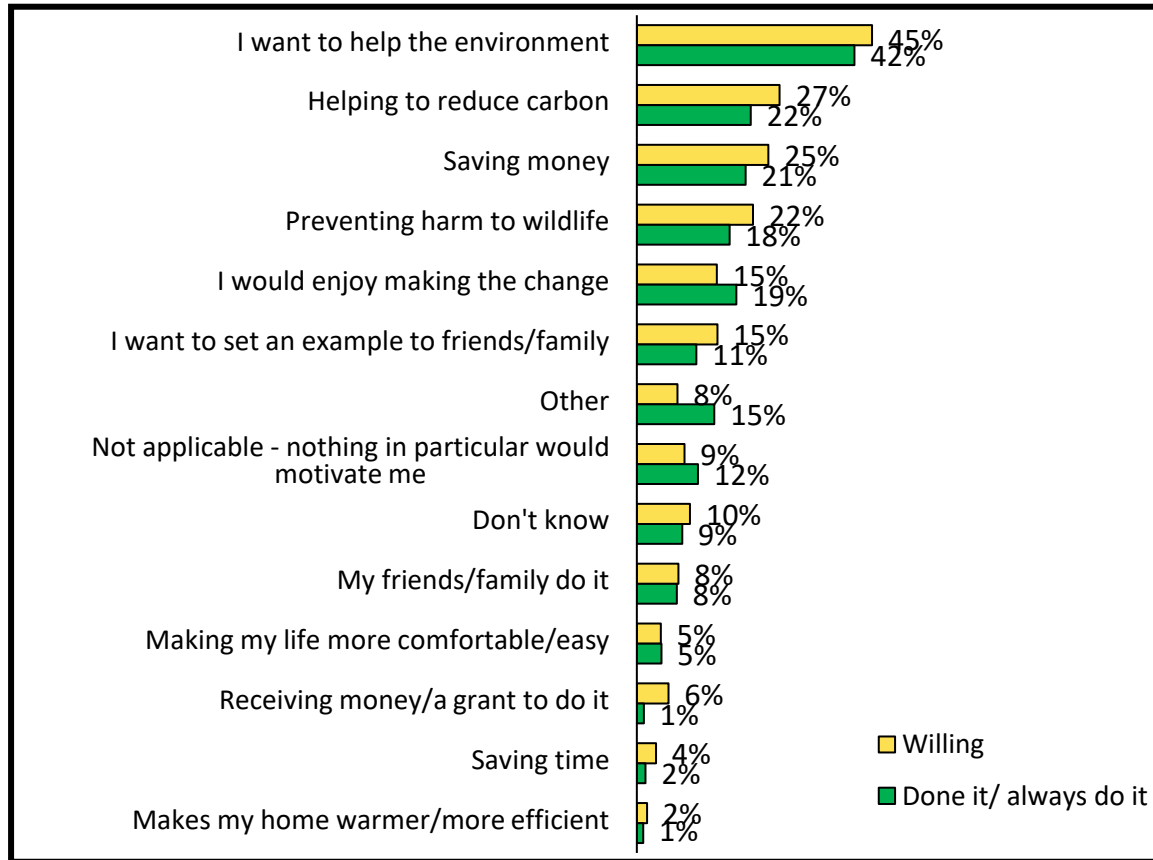


Reduce meat consumption

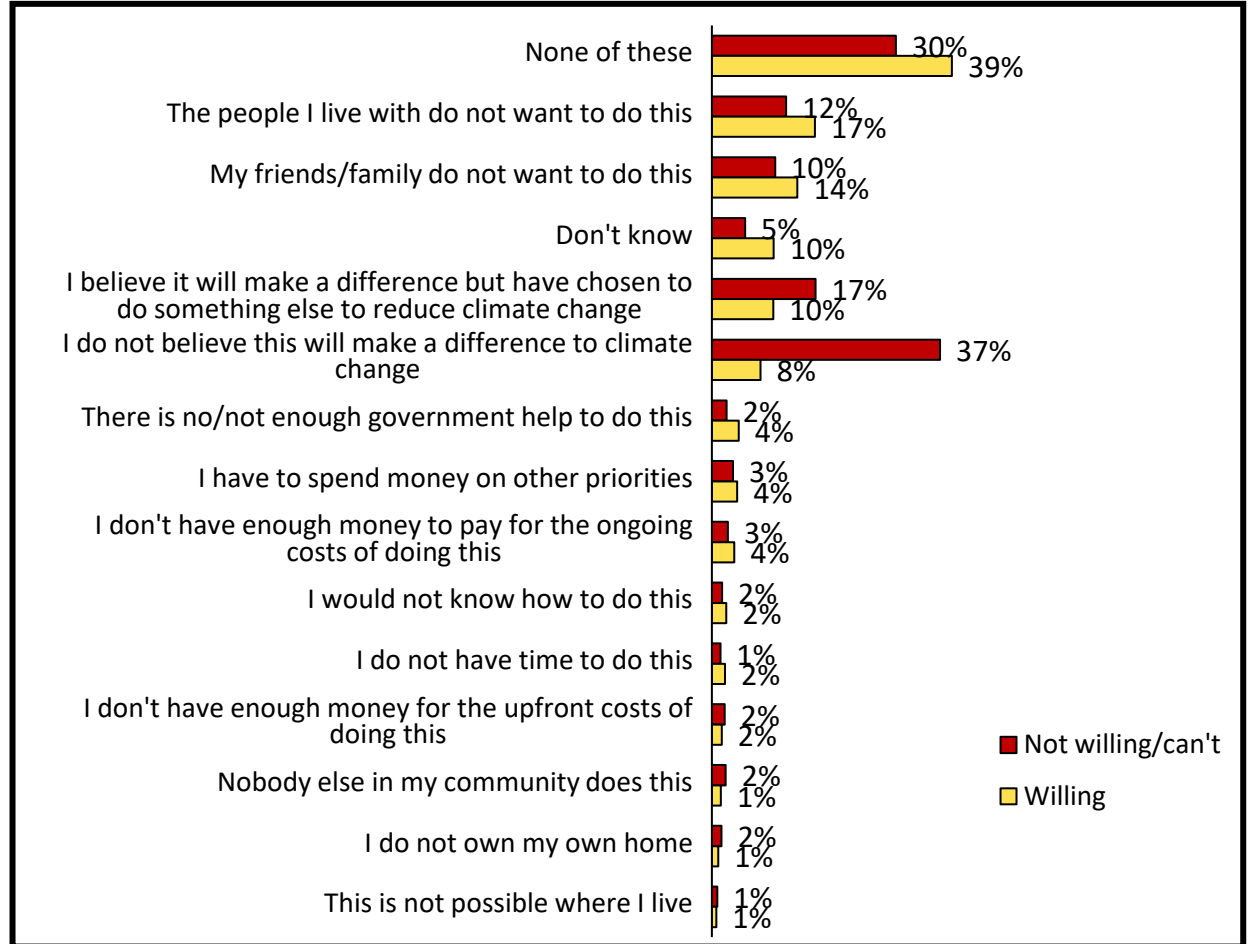
Willingness (Base: 3024)



Key motivations (Base: 1150, 2116, multi-choice)



Key barriers (Base: 1192, 1150, multi-choice)



Summary/key points

- Believing it does not make a difference is a key barrier among the unwilling
- Friends and family resisting can be a barrier for the willing
- Choosing to do another action promotes inaction

Reduce meat consumption (1)

Impact of behaviour
change campaign:
High



What is the most effective practise?

- Environmental restructuring to promote reduced meat consumption
- Promoting self-monitoring and self-regulation

Existing evidence: High
Level of influence: Medium

Best evidence – Systematic review of control trials to reduce meat consumption

- It was found that the following interventions reduced meat consumption:
 - reducing meat portion sizes;
 - providing meat-free alternatives with supporting educational material such as, provision of plant-based food and cooking demonstration programme;
 - manipulating the sensory properties of meat or meat alternatives reduced meat demand such as, changing the visual presentation or hedonic value of these products at point of purchase;
 - repositioning meat products to be less prominent at point of purchase were associated with lower meat demand, such as lower down a menu (UK & Germany, 2018)

Best evidence - Systematic review of control trials to change diets and activity levels

- Approaches such as self-monitoring and self-regulation, using techniques like goal-setting, prompting, self-monitoring, feedback on performance and reviewing goals, promoted behavior change. Teaching a different behaviour, recording it, such as by writing a food diary, and having strategies to cope with relapses, can all successfully change behaviour.
- Adding social support to inventions (family based) provided additional effectiveness to interventions (UK, 2011)

References

Bianchi & Garnett, [Restructuring physical micro-environments to reduce the demand for meat: a systematic review and qualitative comparative analysis](#), 2018, The Lancet Planetary Health

Greaves et al., [Systematic review of reviews of intervention components associated with increased effectiveness in dietary and physical activity interventions](#), 2011, BMC Public Health

Reduce meat consumption (2)

Impact of behaviour
change campaign:
High



Case studies

- If you integrate plant-based diets into the menu design rather than placing them in a separate chapter, people are more likely to order vegetarian because they appear as just another item, and the option is normalised rather than segregated as for vegetarians only (UK, 2018)
- When promoting sustainable food replacing labels like 'vegetarian' or 'meat-free' with language like 'field-grown' or more indulgent descriptions made non-vegetarians more likely to order vegetarian dishes (UK, 2018)
- 'Veganuary' (a campaign to promote veganism throughout January) uses behavior change principles. Self-monitoring is promoted by goal-setting; the ease of veganism is promoted by online recipes and vegan options in restaurants becoming common-place; social norms are promoted by big brands releasing vegan options e.g. Greggs and the social media presence of Veganuary
 - Veganuary was launched in 2014, with 3,300 people signing up; by 2018 there were 168,000
- In addition to 'Veganuary' Meat Free Mondays encourage a day-based approach to plant-based eating (Meat Free Mondays website) whilst Eating Better's #MeatFreeLunch campaign focuses on a meal occasion.

References

Behavioural Insights Team, [Conservation for Nature](#) 2019, page 49 and 26
Rapid Transition Alliance, [Climate and Rapid Behaviour Change](#), 2018, page 20

Reduce meat consumption (3)

Impact of behaviour
change campaign:
High



Case study: Meat Your Match – the Protein Challenge

- Aimed at reducing meat consumption in 18 24-40-year-old males who currently were high meat consumers
 - How?
 - Aligned incentives with audience interest – health message
 - Set clear goals
 - Easy to fit in with current lifestyle: simple and ready to eat meals e.g. Thai vegetable curry, pulse-based stew, cottage pie and promoted direct swaps e.g. whey protein for pea protein
 - Focus on embracing something new rather than giving something up
 - Trusted sources of gym and dietary information i.e. The Body Coach, BBC Good Food
 - 80% of individuals reduced the proportion of meat in their diet
 - The environment and animal welfare message can help sustain dietary shifts, but the main motivator was health (UK, 2018)



Action dashboard – Reduce dairy consumption



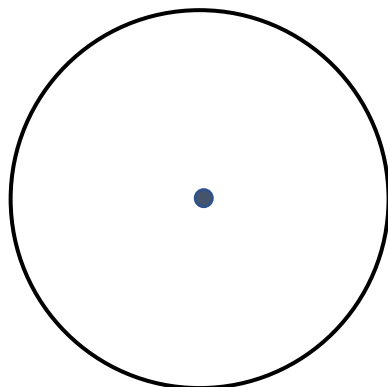
Opportunity size is moderate (11/18 actions)

Willingness is moderate (38%), CO² saving moderate

Social pressure and choosing alternative actions are key barriers

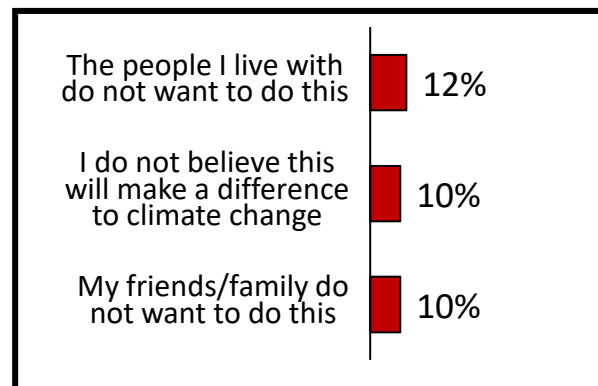
Health is a good angle to approach this action – meat action is linked

Size of opportunity (outer line reflects largest opportunity)

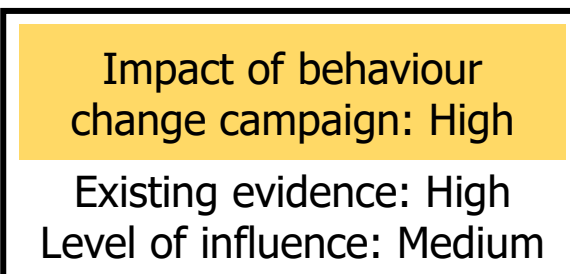


76.42 million kgCO₂e

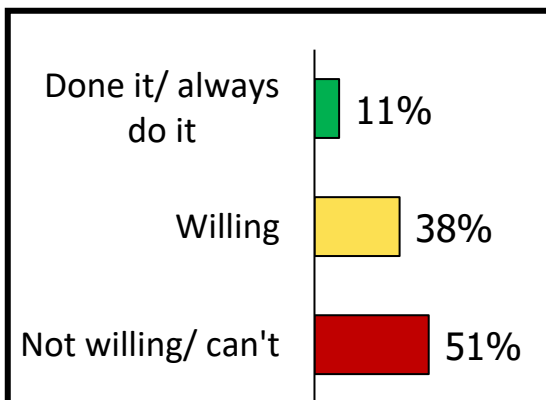
Key barriers (Base: 1139)



Behaviour change evidence

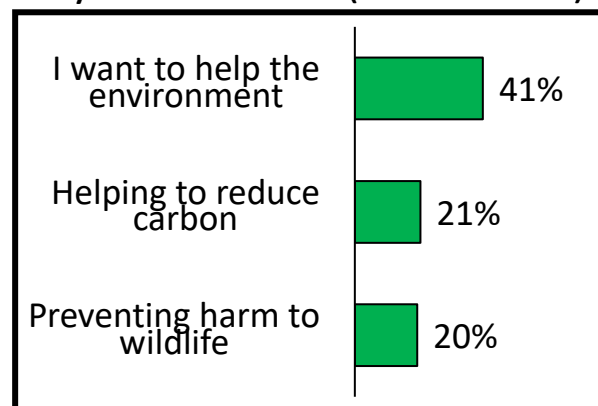


Willingness (Base: 3024)



Carbon saving for one person taking the action: 136.59 kgCO₂e annually

Key motivations (Base: 1139)



Best marketing approach

Health

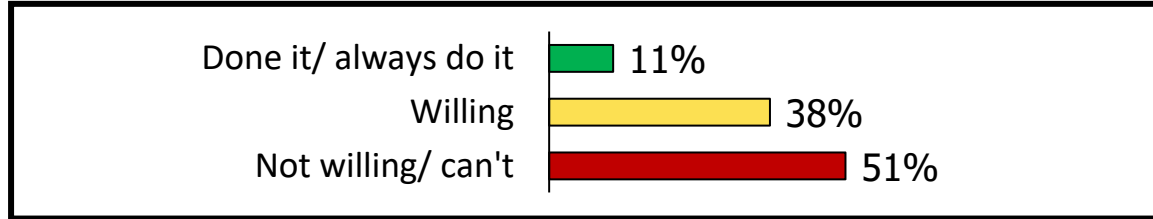
Most linked action

Reduce meat consumption

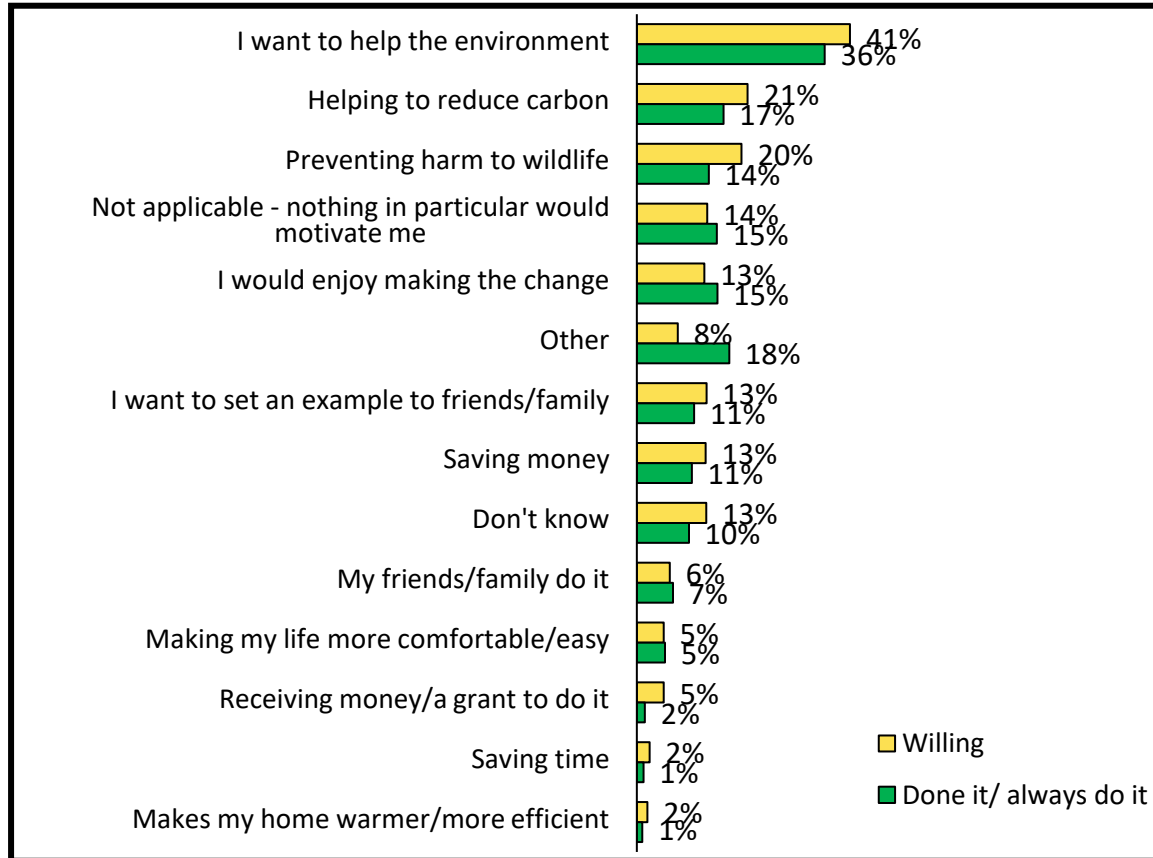
Reduce dairy consumption



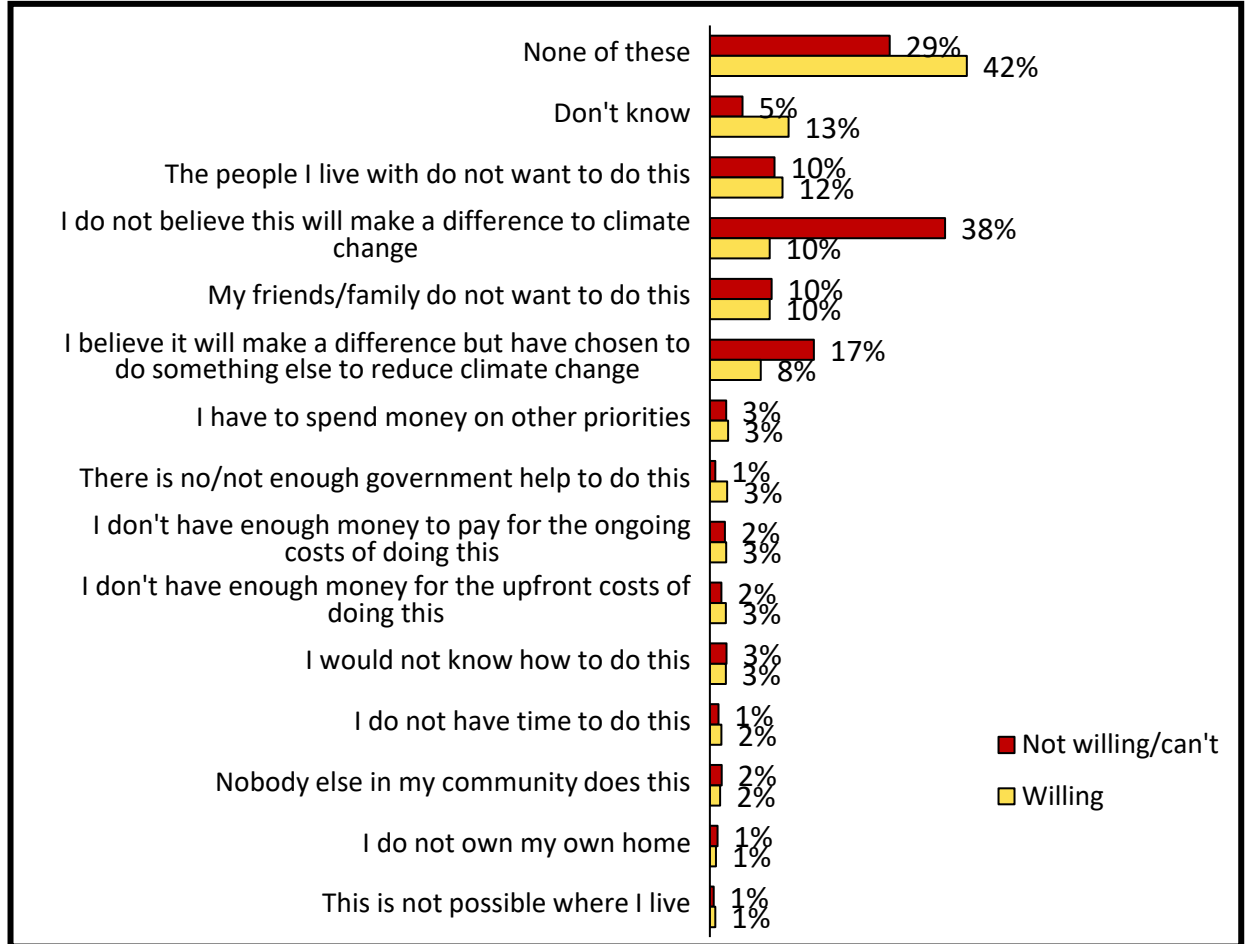
Willingness (Base: 3024)



Key motivations (Base: 1139, 1731, multi-choice)



Key barriers (Base: 1479, 1139, multi-choice)



Summary/key points

- Approx. 1 in 5 people (38% of 51% who are unwilling) do not believe reducing dairy impacts climate change – greater knowledge could drive action
- Social influencers are important in action

Reduce dairy consumption (1)

Impact of behaviour
change campaign:
High



What is the most effective practise?

- Environmental restructuring to promote reduced dairy consumption
- Promoting self-monitoring and self-regulation

Existing evidence: High
Level of influence: Medium

Best evidence – Systematic review of control trials to reduce meat consumption

- It was found that the following interventions reduced meat consumption:
 - reducing meat portion sizes;
 - providing meat-free alternatives with supporting educational material such as, provision of plant-based food and cooking demonstration programme;
 - manipulating the sensory properties of meat or meat alternatives reduced meat demand such as, changing the visual presentation or hedonic value of these products at point of purchase;
 - repositioning meat products to be less prominent at point of purchase were associated with lower meat demand, such as lower down a menu (UK & Germany, 2018)

Best evidence - Systematic review of control trials to change diets and activity levels

- Approaches such as self-monitoring and self-regulation, using techniques like goal-setting, prompting, self-monitoring, feedback on performance and reviewing goals, promoted behavior change. Teaching a different behaviour, recording it, such as by writing a food diary, and having strategies to cope with relapses, can all successfully change behaviour.
- Adding social support to inventions (family based) provided additional effectiveness to interventions (UK, 2011)

References

Bianchi & Garnett, [Restructuring physical micro-environments to reduce the demand for meat: a systematic review and qualitative comparative analysis](#), 2018, The Lancet Planetary Health

Greaves et al., [Systematic review of reviews of intervention components associated with increased effectiveness in dietary and physical activity interventions](#), 2011, BMC Public Health

Reduce dairy consumption (2)

Impact of behaviour
change campaign:
High



Case studies

- If you integrate plant-based diets into the menu design rather than placing them in a separate chapter, people are more likely to order vegetarian because they appear as just another item, and the option is normalised rather than segregated as for vegetarians only (UK, 2018)
- When promoting sustainable food replacing labels like 'vegetarian' or 'meat-free' with language like 'field-grown' or more indulgent descriptions made non-vegetarians more likely to order vegetarian dishes (UK, 2018)
- 'Veganuary' (a campaign to promote veganism throughout January) uses behavior change principles. Self-monitoring is promoted by goal-setting; the ease of veganism is promoted by online recipes and vegan options in restaurants becoming common-place; social norms are promoted by big brands releasing vegan options e.g. Greggs and the social media presence of Veganuary
 - Veganuary was launched in 2014, with 3,300 people signing up; by 2018 there were 168,000
- In addition to 'Veganuary' Meat Free Mondays encourage a day-based approach to plant-based eating (Meat Free Mondays website) whilst Eating Better's #MeatFreeLunch campaign focuses on a meal occasion.

References

Behavioural Insights Team, [Conservation for Nature](#) 2019, page 49 and 26
Rapid Transition Alliance, [Climate and Rapid Behaviour Change](#), 2018, page 20

Reduce dairy consumption (3)

Impact of behaviour
change campaign:
High



Case study: Meat Your Match – the Protein Challenge

- Aimed at reducing meat consumption in 18 24-40-year-old males who currently were high meat consumers
 - How?
 - Aligned incentives with audience interest – health message
 - Set clear goals
 - Easy to fit in with current lifestyle: simple and ready to eat meals e.g. Thai vegetable curry, pulse-based stew, cottage pie and promoted direct swaps e.g. whey protein for pea protein
 - Focus on embracing something new rather than giving something up
 - Trusted sources of gym and dietary information i.e. The Body Coach, BBC Good Food
 - 80% of individuals reduced the proportion of meat in their diet
 - The environment and animal welfare message can help sustain dietary shifts, but the main motivator was health (UK, 2018)





Action dashboard – Buy locally produced food

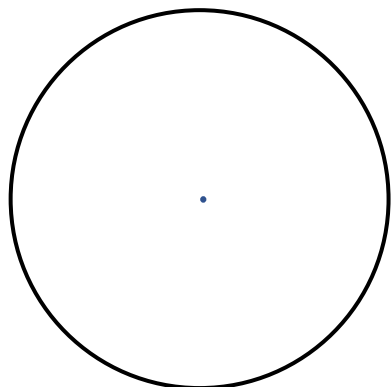
Opportunity size is low
(15/18 actions)

Willingness is highest
(78%), CO² saving is
low

Finance is the key barrier
to what would be an
enjoyable change

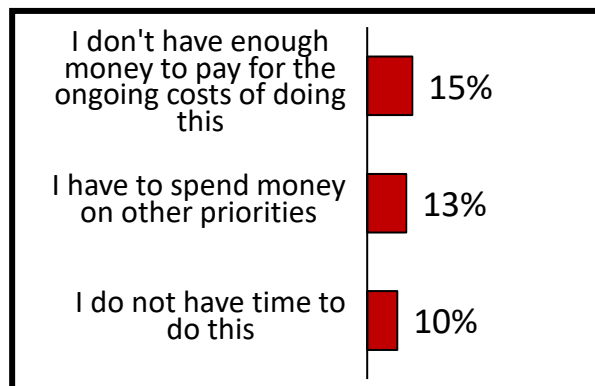
Buying locally is linked to
ethical food choices

Size of opportunity
(outer line reflects largest opportunity)



16.54
million
kgCO²e

Key barriers (Base: 2359)



Behaviour change evidence

Impact of behaviour
change campaign: Medium

Existing evidence: Medium
Level of influence: Medium

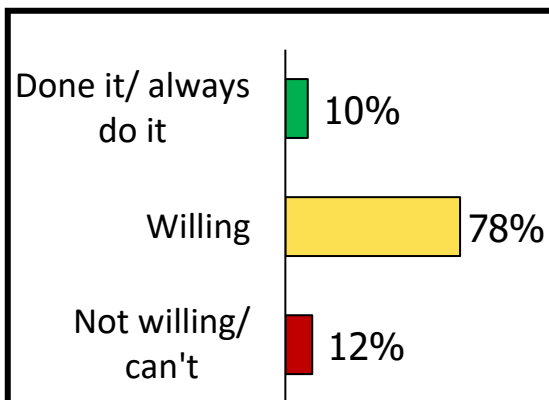
Best marketing
approach

Not determined

Most linked action

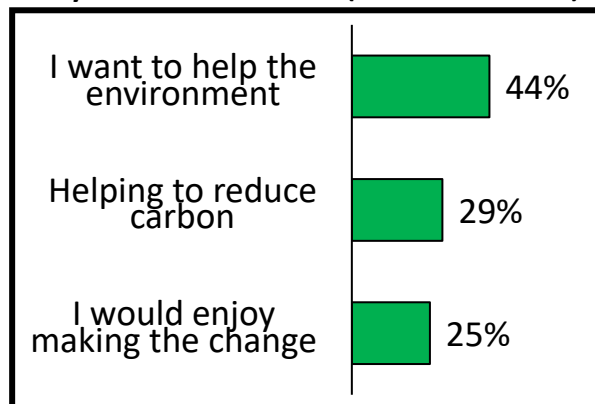
Make ethical food
choices

Willingness (Base: 3024)



Carbon saving for one
person taking the
action:
14.4 kgCO² equivalent
annually

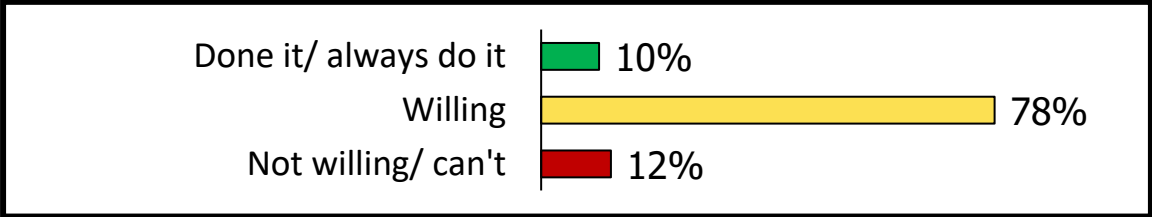
Key motivations (Base: 2359)



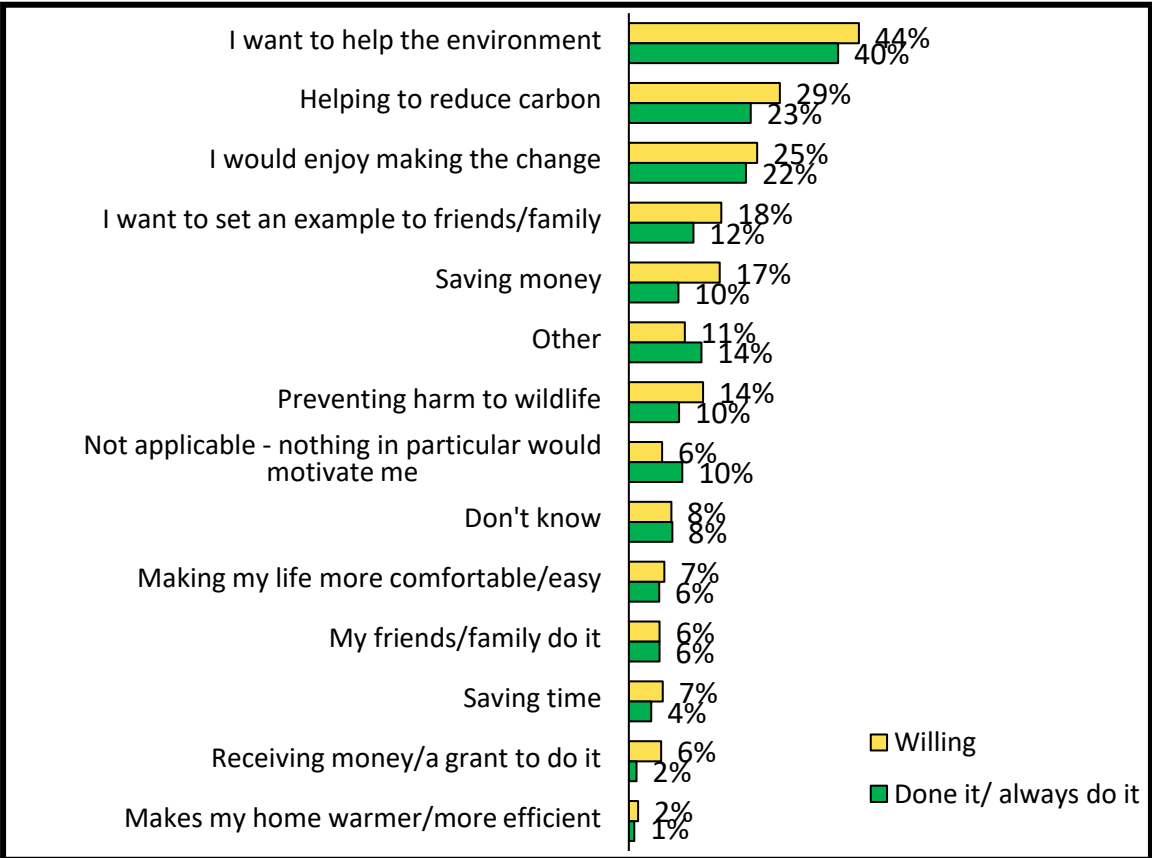


Buy locally produced food

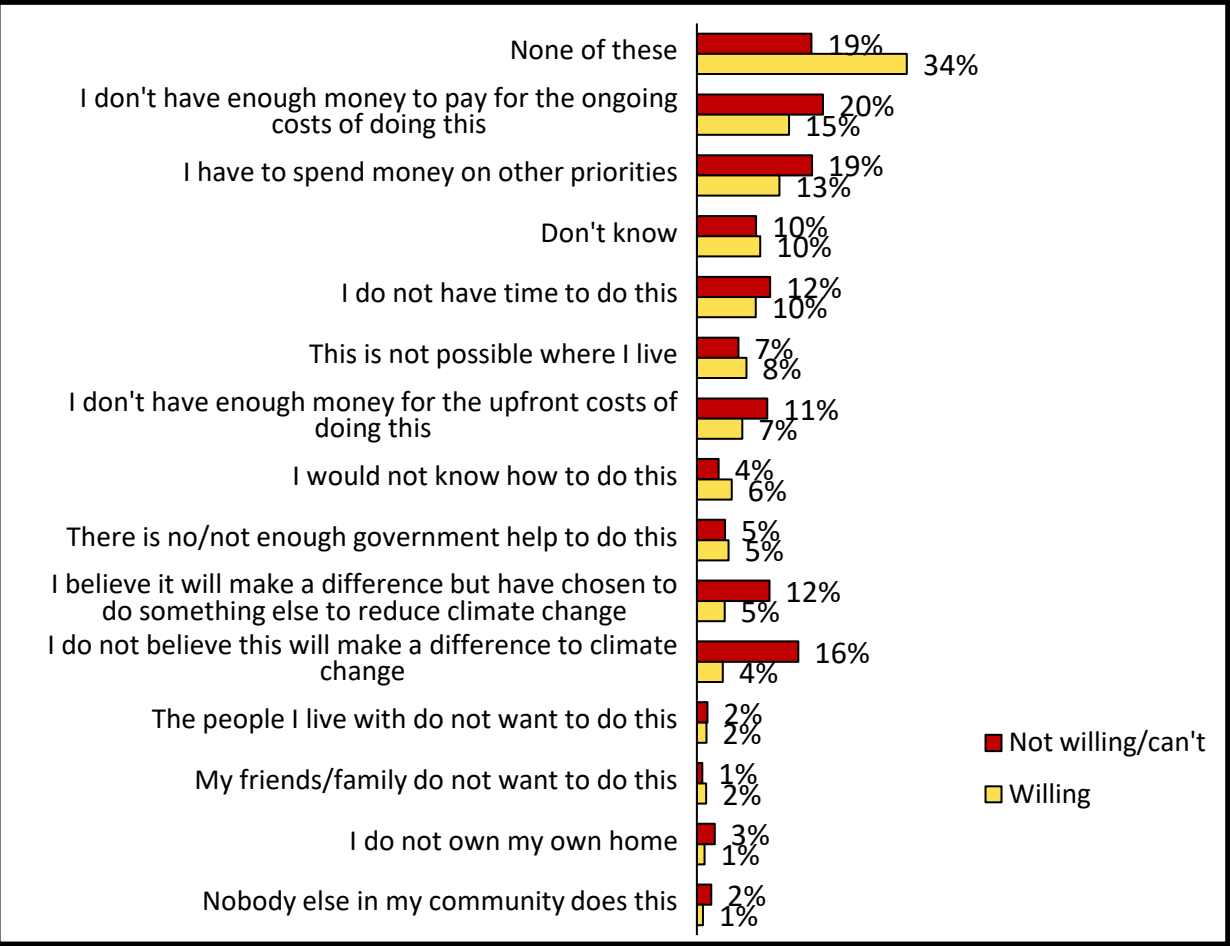
Willingness (Base: 3024)



Key motivations (Base: 2359, 2747, multi-choice)



Key barriers (Base: 336, 2359, multi-choice)



Summary/key points

- A large majority of people are willing to buy local and believe it will help the environment and reduce carbon – greater knowledge could nudge action towards more effective priorities

Buy locally produced food

What is the most effective practise?

- Make 'locally produced' labels salient when food shopping
- Make it easy e.g. rule of thumb to use so you know what vegetables are locally sourced
- Role models endorsing consumption of local produce

Case studies

- Purchasing decisions are often made rapidly based on one or two product factors for routine purchases – often price and health. By making the distance the food had travelled more salient (using LED fitted carts) 72% of the products purchased by shoppers had lower mean food mileages than those selected by shoppers using the regular cart. Placing shoppers in a social context – comparing different choices on the same product – was also effective (UK, 2012).
- 'Giki' makes sustainable shopping easy – you scan your food and can find out if it is UK made, has a low carbon food print, palm oil free, organic etc.
- Campaign called 'Eat Seasonably' made it easy for individuals to understand what was in season by presenting a clear and constant picture (see image). The campaign was supported by key food figures such as Gregg Wallace and Hugh Fearnley-Whittingstall (UK, 2009).
- Simple messages or 'rules of thumb' are successful ways of creating movement in the right direction. For example, encouraging people in the UK to choose root vegetables and vegetables that can be 'field grown', such as carrots and parsnips, is a simple way of increasing the consumption of UK grown veg (UK, 2006).

Reference

Kalnikaite et al., [Decision-making in the aisles: informing, overwhelming or nudging supermarket shoppers?](#), 2012, Personal and Ubiquitous Computing <https://gikibadges.com/>

Behaviour Change, [Eat Seasonably](#), 2009

Garnett, T. (2006) [Fruit and Vegetables & UK Greenhouse Gas Emissions: Exploring the Relationship](#). Food Climate Research Network. Centre for Environmental Strategy: UK

Impact of behaviour
change campaign:
Medium



Existing evidence: Medium
Level of influence: Medium



Action dashboard – Make ethical food choices (e.g. buy Fairtrade, don't buy palm oil etc.)

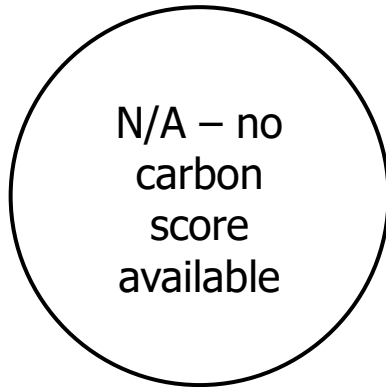


Willingness is high (66%), CO2 is N/A

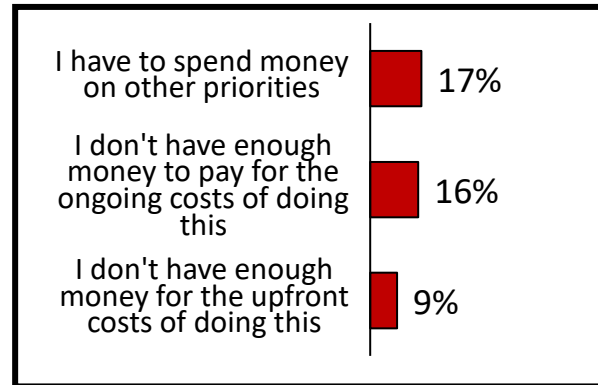
Finance is the key barrier to what would be an enjoyable change

Preventing harm to the environment and wildlife are key motivations

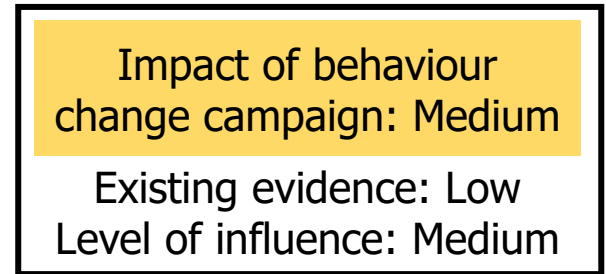
Size of opportunity
(outer line reflects largest opportunity)



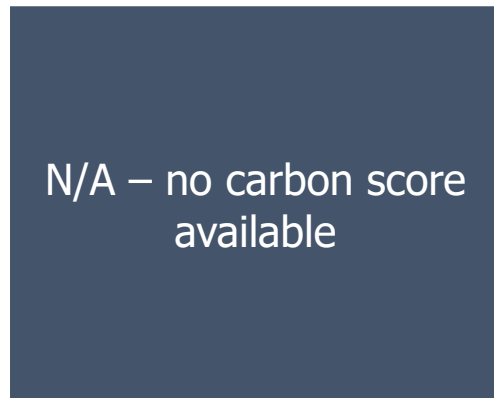
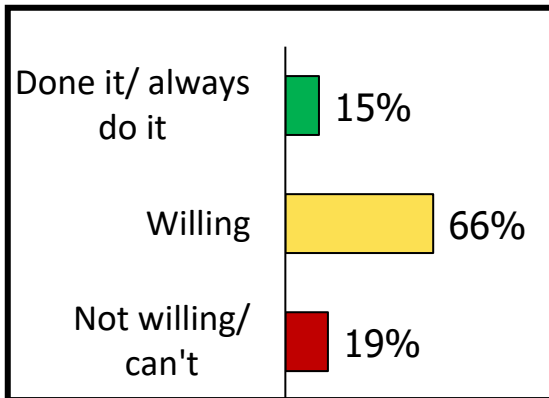
Key barriers (Base: 1996)



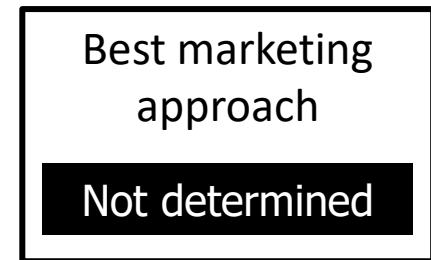
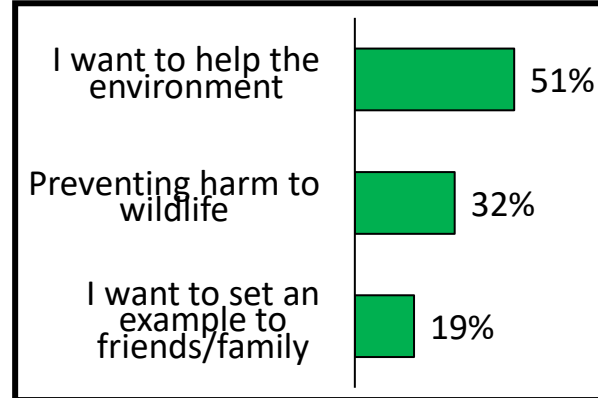
Behaviour change evidence



Willingness (Base: 3024)



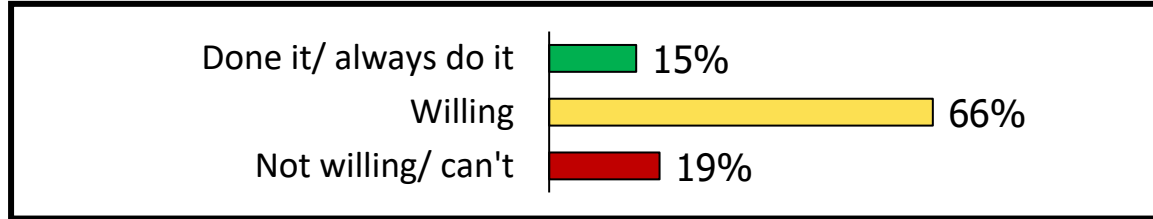
Key motivations (Base: 1996)



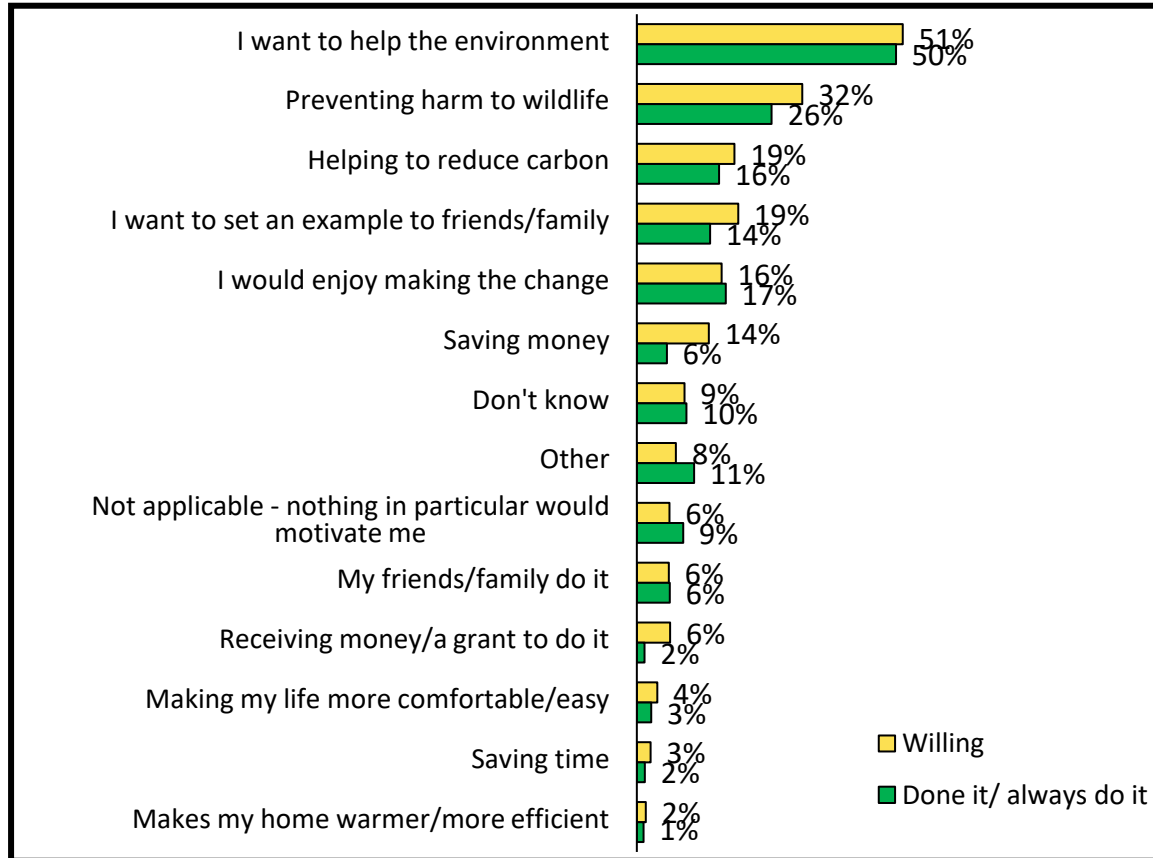


Make ethical food choices (e.g. buy Fairtrade, don't buy palm oil etc.)

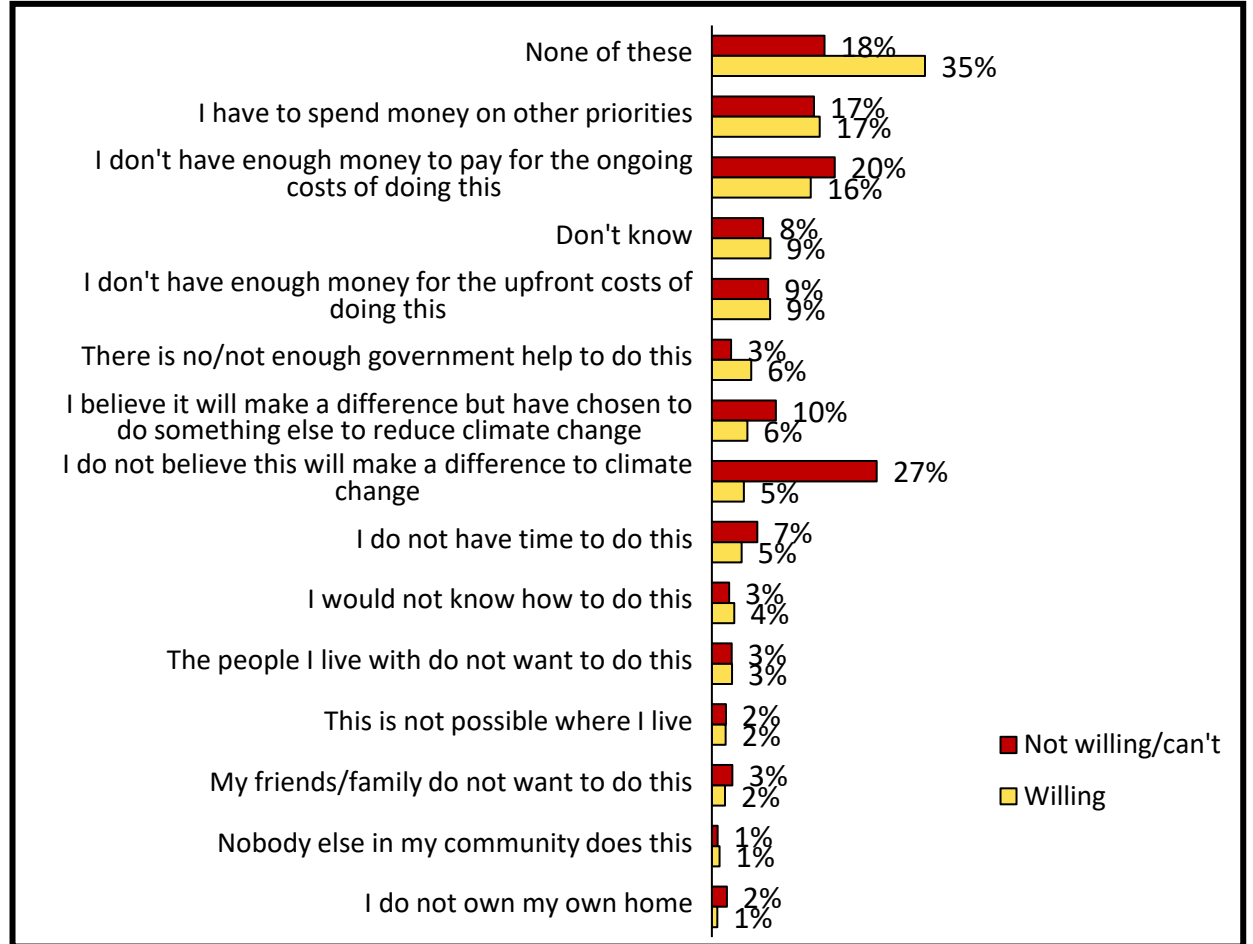
Willingness (Base: 3024)



Key motivations (Base: 1996, 2626, multi-choice)



Key barriers (Base: 532, 1996, multi-choice)



Summary/key points

- Ethical choices are motivated by the environment and wildlife
- Cost is a key barrier to action

Make ethical food choices (e.g. buy Fairtrade, don't buy palm oil etc.)

Impact of behaviour
change campaign:
Medium



What is the most effective practise?

- Promote knowledge, social norms and availability

Existing evidence: Low
Level of influence: Medium

Case studies

- Survey was conducted investigating attitude and intention to buy sustainable dairy. Ethical purchasing can be promoted by
 - Raising involvement (i.e. understanding and knowledge of issues involved);
 - Raising perceived consumer effectiveness (i.e. consumer ability to contribute to protecting the environment and improving producer's welfare);
 - Promoting certainty and trust in ethical claims;
 - Social norms or peer pressure;
 - High perceived availability.



Reference

Vermeir, I., & Verbeke, W. (2006). Sustainable food consumption: Exploring the consumer "attitude-behavioral intention" gap. *Journal of Agricultural and Environmental ethics*, 19(2), 169-194.

Action summaries – Sustainable resources



Area summary: Sustainable resources



Correctly recycle materials

Opportunity Size
(millions of kg CO2 annually)

3

Willingness to take action	Ease of Behaviour change	Level of influence
20%	Medium	Medium

What evidence suggests you should do...
Make it easy, fun and visual



Use reusable alternatives

Willingness to take action	Ease of Behaviour change	Level of influence
34%	High	Medium

What evidence suggests you should do...
Combine financial incentives with environmental restructuring



Reduce use of plastics

Willingness to take action	Ease of Behaviour change	Level of influence
63%	High	Medium

What evidence suggests you should do...
Combine financial incentives with environmental restructuring



Action dashboard – Correctly recycle materials

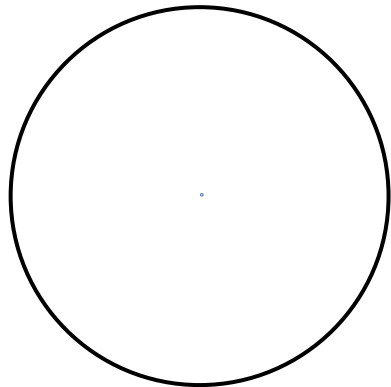
Opportunity size is the lowest (18/18 actions)

Willingness is low (20%), CO² saving is the lowest

Additional ability to do it or making it easier will increase recycling

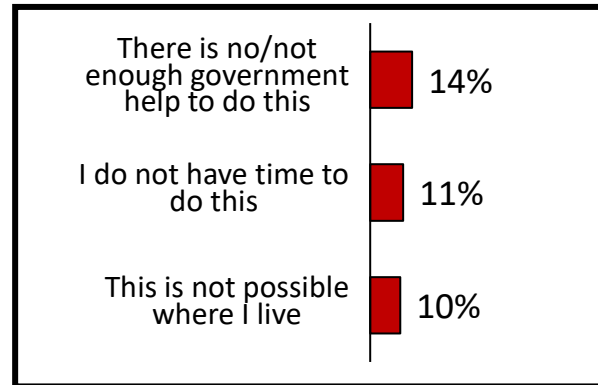
Buying locally is linked to ethical food choices

Size of opportunity (outer line reflects largest opportunity)



2.63 million kgCO₂e

Key barriers (Base: 614)



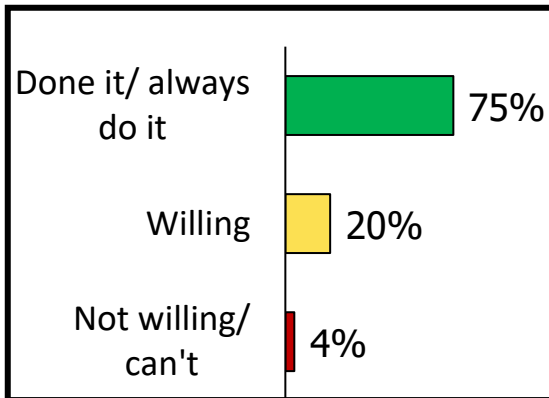
Behaviour change evidence

Impact of behaviour change campaign: Medium

Existing evidence: High

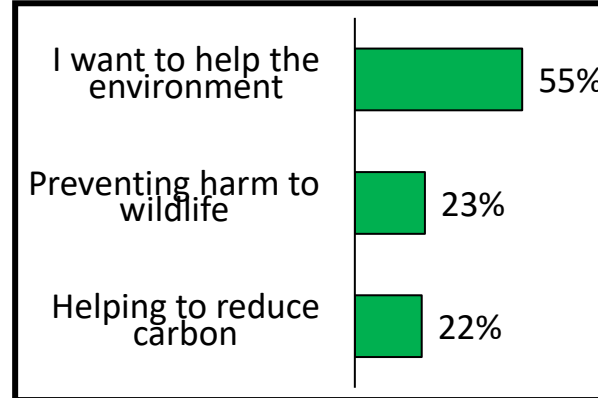
Level of influence: Medium

Willingness (Base: 3024)



Carbon saving for one person taking the action: 8.92 kgCO₂ equivalent annually

Key motivations (Base: 614)



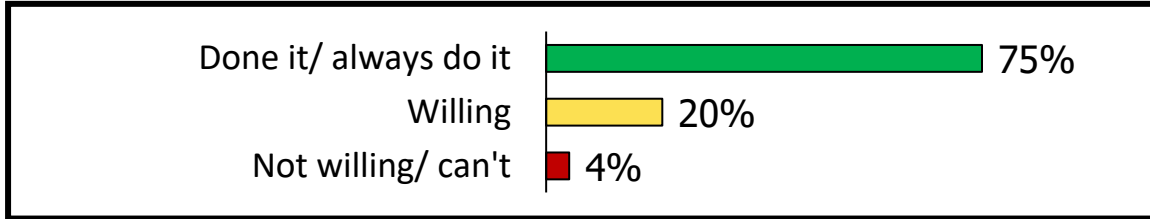
Best marketing approach
Not determined

Most linked action
Reduce food waste

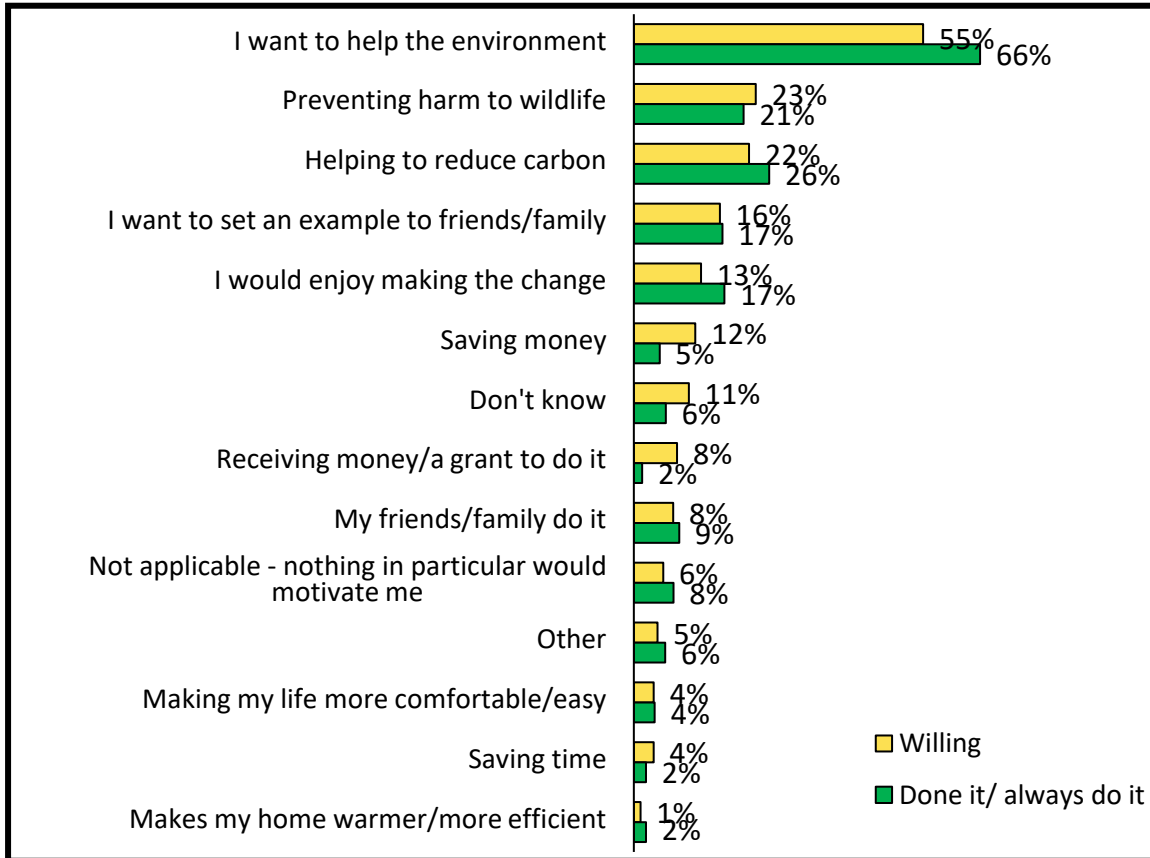


Correctly recycle materials

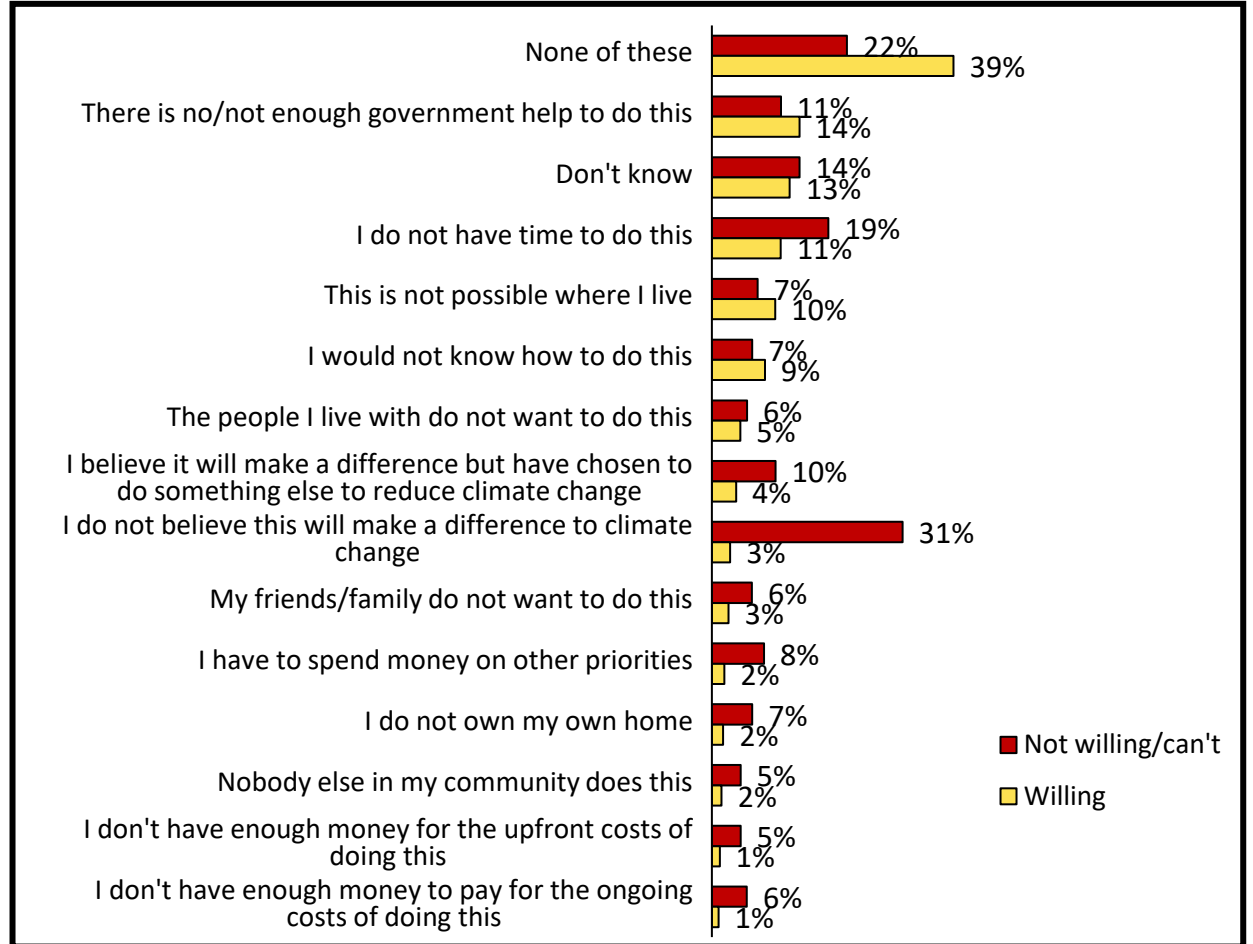
Willingness (Base: 3024)



Key motivations (Base: 614, 2968, multi-choice)



Key barriers (Base: 103, 614, multi-choice)



Summary/key points

- Willing recyclers are less motivated by the environment but more motivated by money and see barriers that need government help to overcome

Correctly recycle materials

What is the most effective practise?

- Make recycling easy

Case study: Recycle on the go and #LeedsByExample

- The number of people recycling in Leeds City Centre has almost tripled from 17% to 49%. What was effective?
 - Make recycling fun and visual – playful messaging and bright bins
 - Quality of recycling can vary – when placing bins in busy areas ensure recycling bins are visible and in locations where people are less in a rush. Ensure there is a general waste bin directly beside the recycling bin to reduce contamination.
 - Collect cups as they are a major contaminant in recycle bins. Managed spaces collecting cups yield highest quality recycling. Retailers and commuter routes collect the highest volume of cups (UK, 2019)

Impact of behaviour
change campaign:
Medium



Existing evidence: High
Level of influence: Medium



Reference

[Recycle on the go and #LeedsByExample](#), 2019, Hubbub

Action dashboard – Use reusable alternatives (e.g. shopping bags, containers etc.)

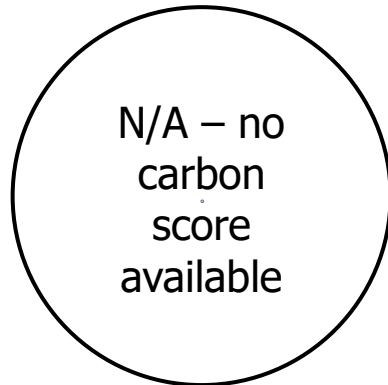


Willingness is low (34%), CO² is N/A

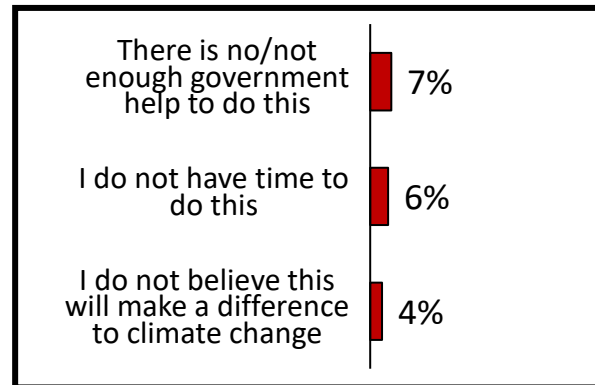
Key motivation is to help the environment

Action is linked to reducing use of plastics

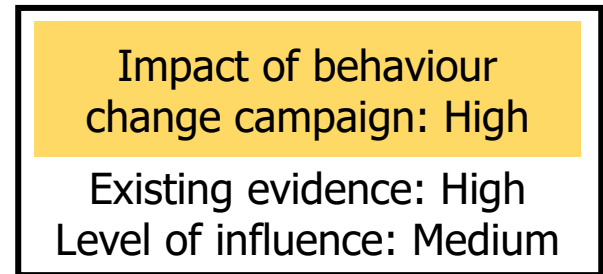
Size of opportunity
(outer line reflects largest opportunity)



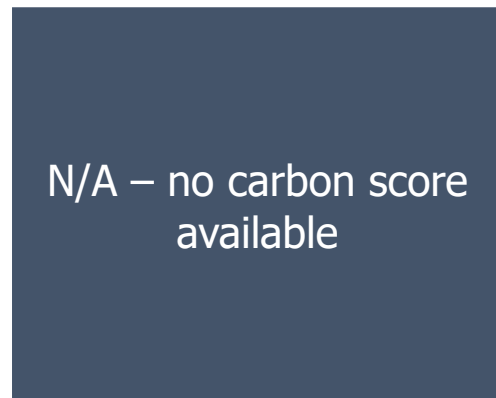
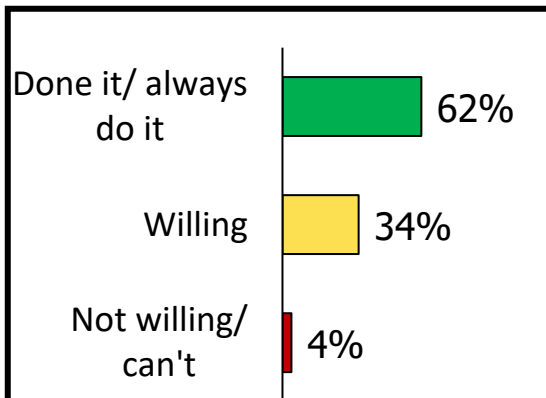
Key barriers (Base: 1022)



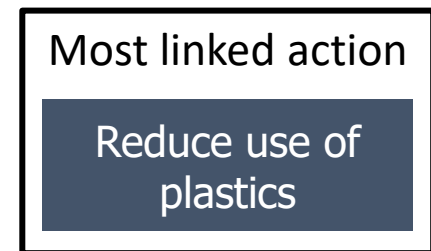
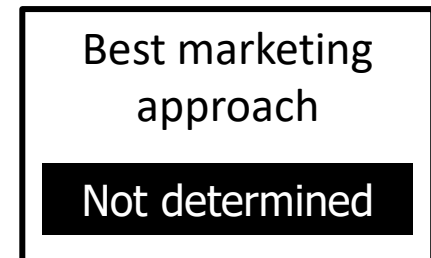
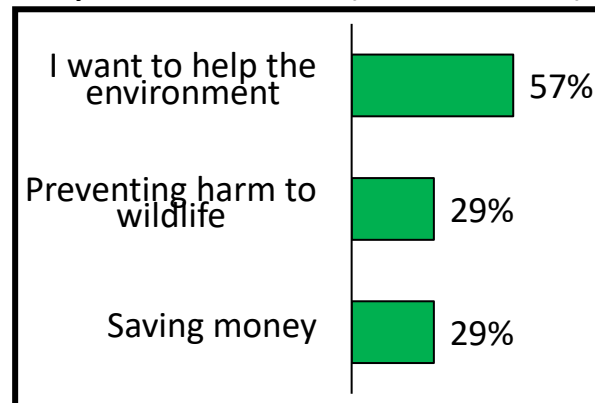
Behaviour change evidence



Willingness (Base: 3024)



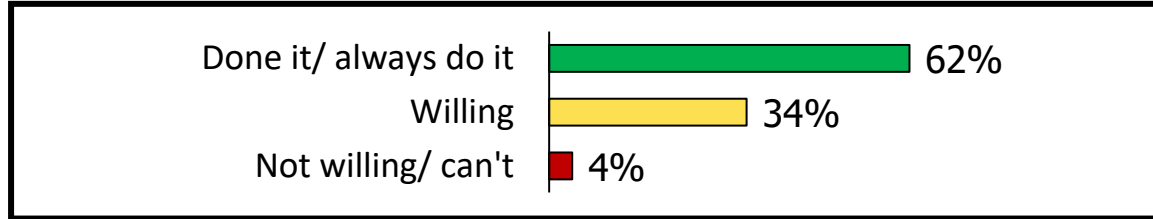
Key motivations (Base: 1022)



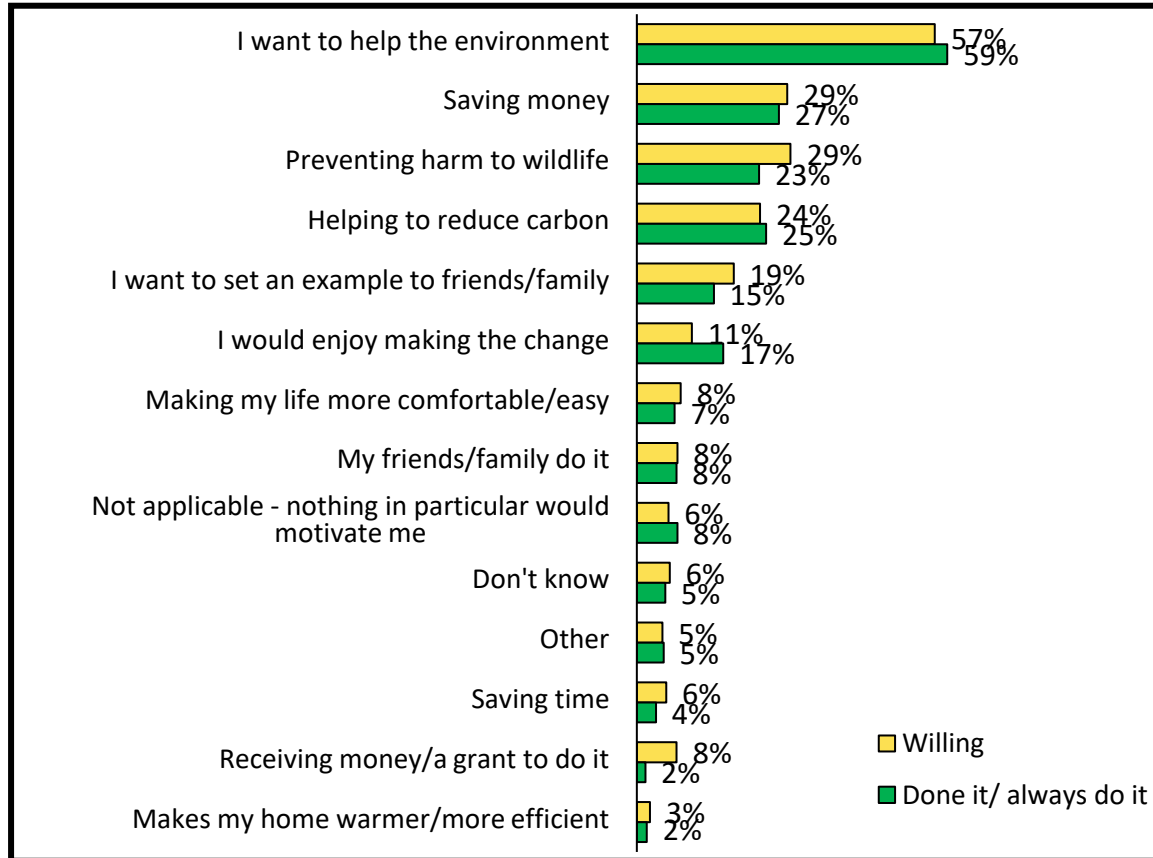


Use reusable alternatives (e.g. shopping bags, containers etc.)

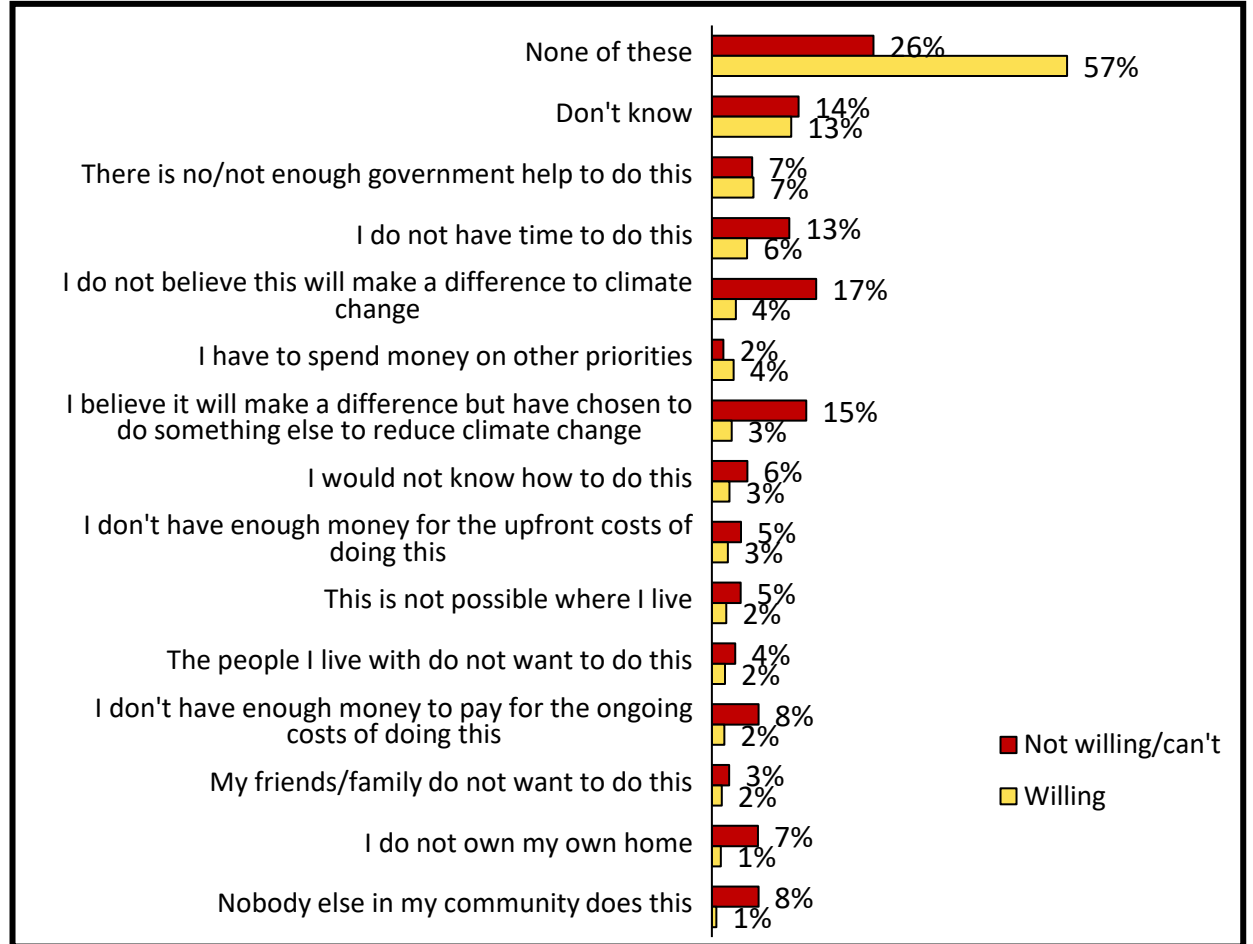
Willingness (Base: 3024)



Key motivations (Base: 1022, 2961, multi-choice)



Key barriers (Base: 104, 1022, multi-choice)



Summary/key points

- Key motivations are environment, money and wildlife harm prevention
- Key barrier is lack of government support. The automatic nature of the behaviour reflects the low scores amongst many barriers for the willing.

Use reusable alternatives

What is the best practise?

- Combine financial incentives with environmental restructuring

Best evidence – Control trial

- Field experiment conducted at twelve university and business sites to examine whether the use of reusable cups can be promoted through easily implementable measures. The interventions were:
 - Provision of alternatives (reusable cups for sale or given out for free)
 - Financial incentive (charged for a single use cup or given a discount for using a reusable cup)
 - Environmental messaging – shown across all cafes, including control group (see image)Study suggests provision of a free reusable cup and financial discount is particularly effective. Discounting for use of a reusable cup is effective as people are more susceptible to losses than gain and it communicates the social norm.
- Three cafes continued with the charge after the experiment had finished and distributed more reusable cups for free among their students. This boosted the use of reusable cups up to 33.7% across three cafés (UK, 2018).

Impact of behaviour
change campaign:
High



Existing evidence: High
Level of influence: Medium

FIGHT THE WASTE!
3 BILLION TAKEAWAY CUPS GO TO
LANDFILL EVERY YEAR IN THE UK



Reference

Poortinga & Whitaker, [Promoting the Use of Reusable Coffee Cups through Environmental Messaging, the Provision of Alternatives and Financial Incentives](#), 2018, Sustainability

Action dashboard – Reduce use of plastics

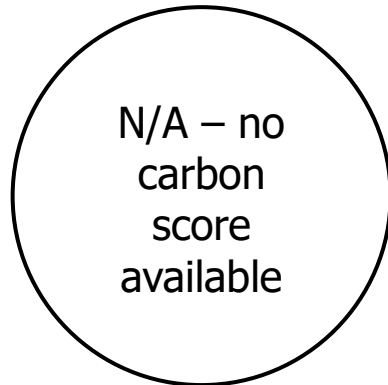


Willingness is high (63%), CO² is N/A

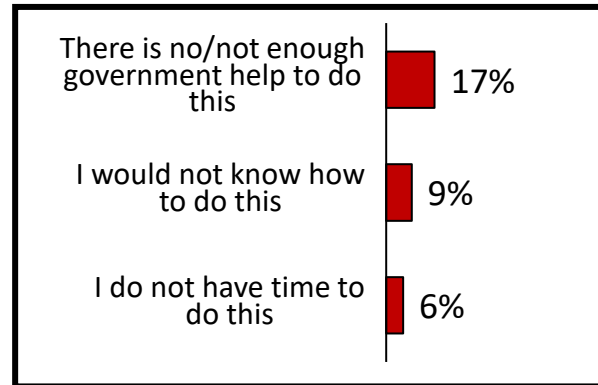
Additional practical help or restraints on options could increase the action

Making it easier to make the right choice is key

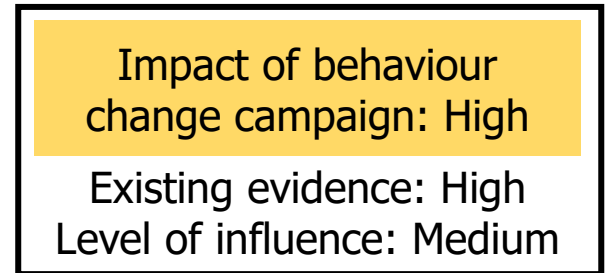
Size of opportunity
(outer line reflects largest opportunity)



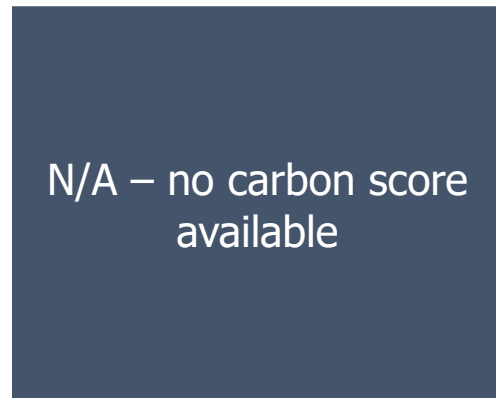
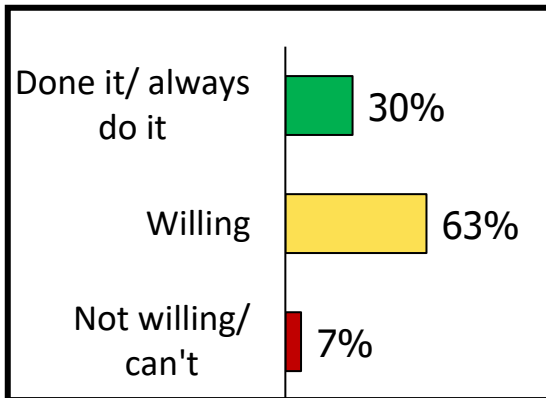
Key barriers (Base: 1895)



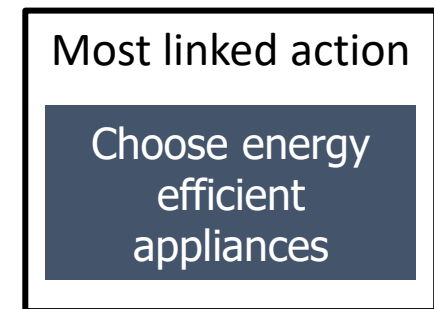
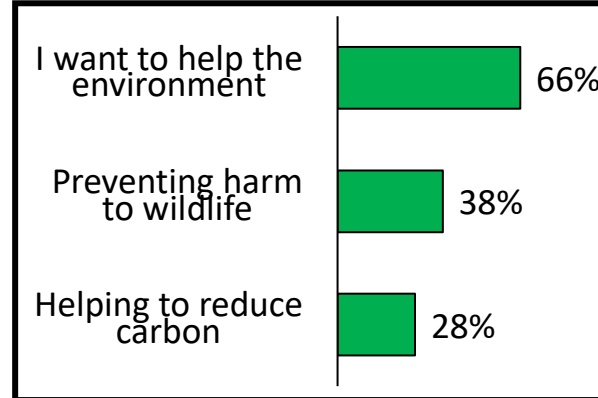
Behaviour change evidence



Willingness (Base: 3024)



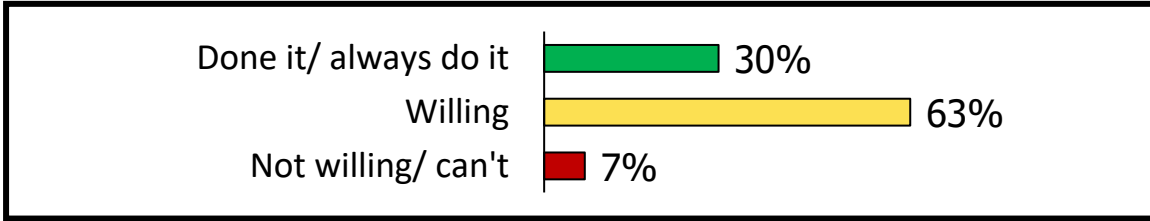
Key motivations (Base: 1895)



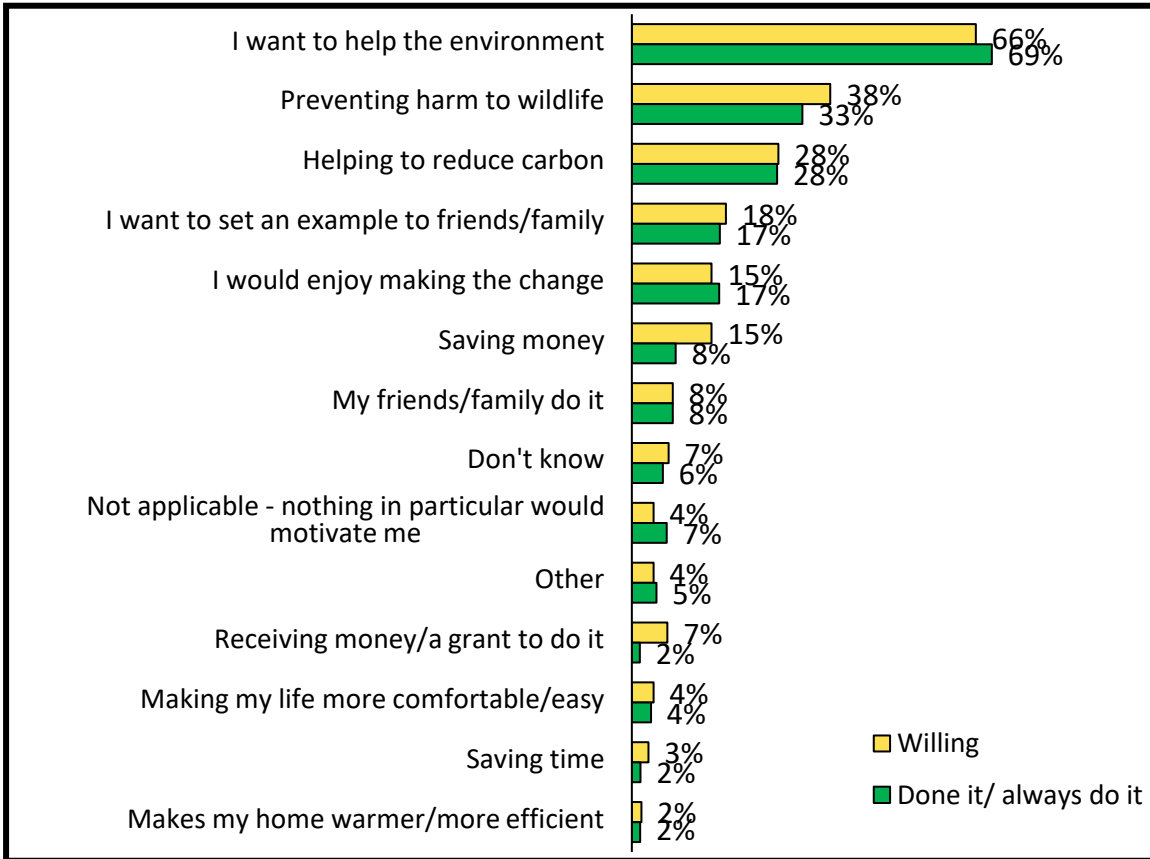


Reduce use of plastics

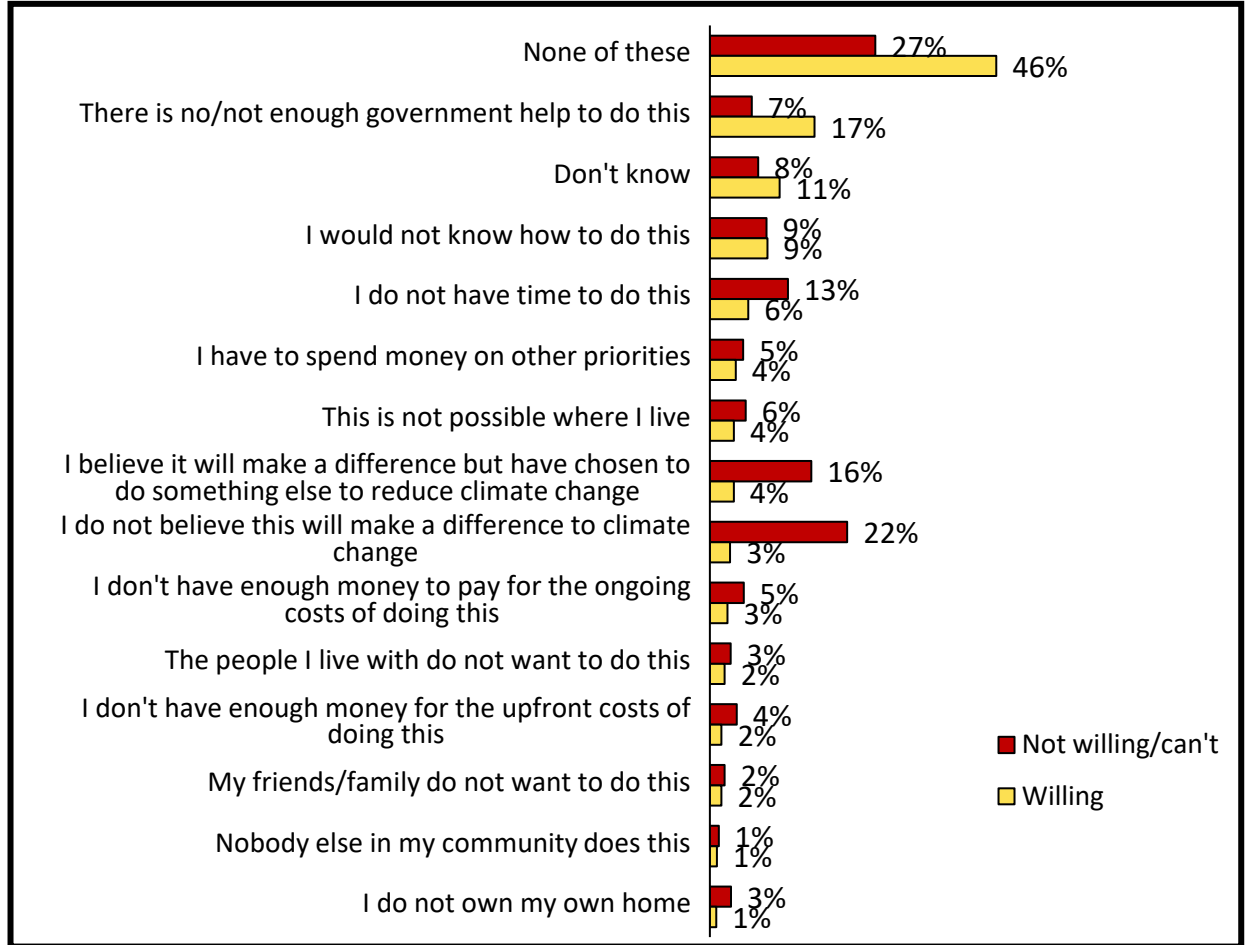
Willingness (Base: 3024)



Key motivations (Base: 1895, 2874, multi-choice)



Key barriers (Base: 200, 1895, multi-choice)



Summary/key points

- Preventing harm to wildlife stands out as a motivation among the willing
- Key barrier to action is lack of control individual's have over this

Reduce use of plastics

What is the best practise?

- Combine financial incentives with environmental restructuring

Best evidence – Control trial

- Field experiment conducted at twelve university and business sites to examine whether the use of reusable cups can be promoted through easily implementable measures. The interventions were:
 - Provision of alternatives (reusable cups for sale or given out for free)
 - Financial incentive (charged for a single use cup or given a discount for using a reusable cup)
 - Environmental messaging – shown across all cafes, including control group (see image)
- Study suggests provision of a free reusable cup and financial discount is particularly effective. Discounting for use of a reusable cup is effective as people are more susceptible to losses than gain and it communicates the social norm.
- Three cafes continued with the charge after the experiment had finished and distributed more reusable cups for free among their students. This boosted the use of reusable cups up to 33.7% across three cafés (UK, 2018).

Impact of behaviour
change campaign:
High



Existing evidence: High
Level of influence: Medium

FIGHT THE WASTE!
3 BILLION TAKEAWAY CUPS GO TO
LANDFILL EVERY YEAR IN THE UK



Reference

Poortinga & Whitaker, [Promoting the Use of Reusable Coffee Cups through Environmental Messaging, the Provision of Alternatives and Financial Incentives](#), 2018, Sustainability

Action summaries – Resilience to climate change



Area summary: Resilience to climate change

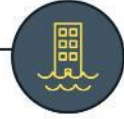


Modify home to be more resilient to heat and drought

Willingness to take action	Ease of Behaviour change	Level of influence
60%	Low	Medium

What evidence suggests you should do...

Make salience of extreme weather conditions less abstract i.e. relevant to individuals



Modify home to be more resilient to storms and flooding

Willingness to take action	Ease of Behaviour change	Level of influence
41%	Low	Medium

What evidence suggests you should do...

Make salience of extreme weather conditions less abstract i.e. relevant to individuals

Action dashboard – Modify my home to be more resilient to heat and drought

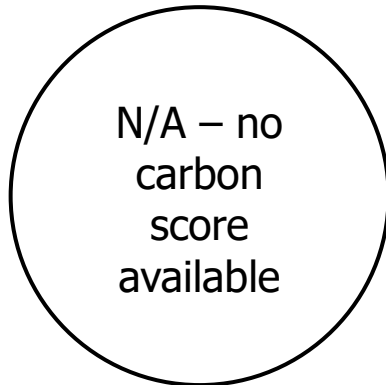


Willingness is high (60%), CO² is N/A

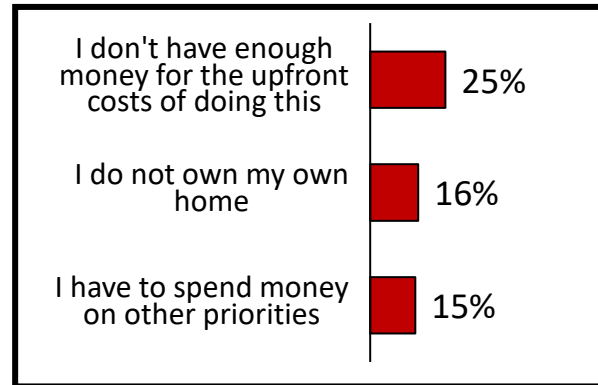
Money restraints and home ownership are key barriers

Action is linked to renewable energy devices

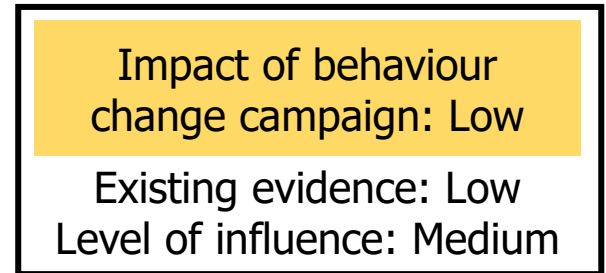
Size of opportunity
(outer line reflects largest opportunity)



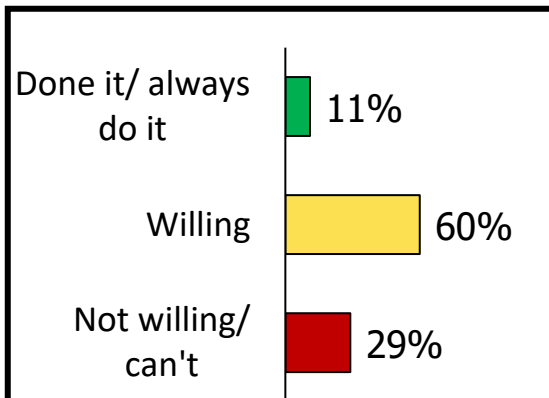
Key barriers (Base: 1822)



Behaviour change evidence

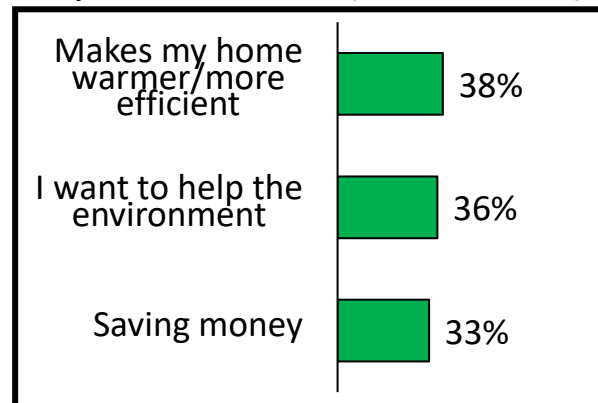


Willingness (Base: 3024)



N/A – no carbon score available

Key motivations (Base: 1822)



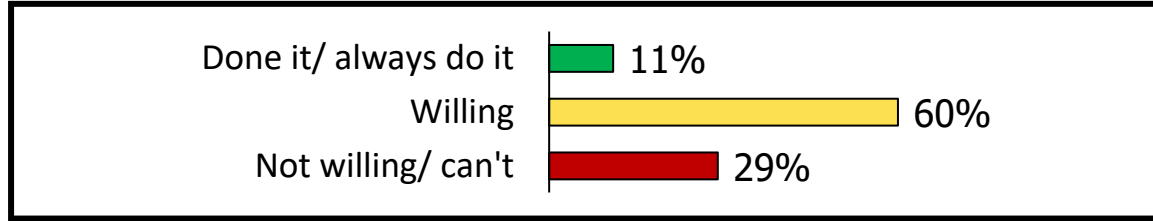
Best marketing approach
Not determined

Most linked action
Install renewable energy devices

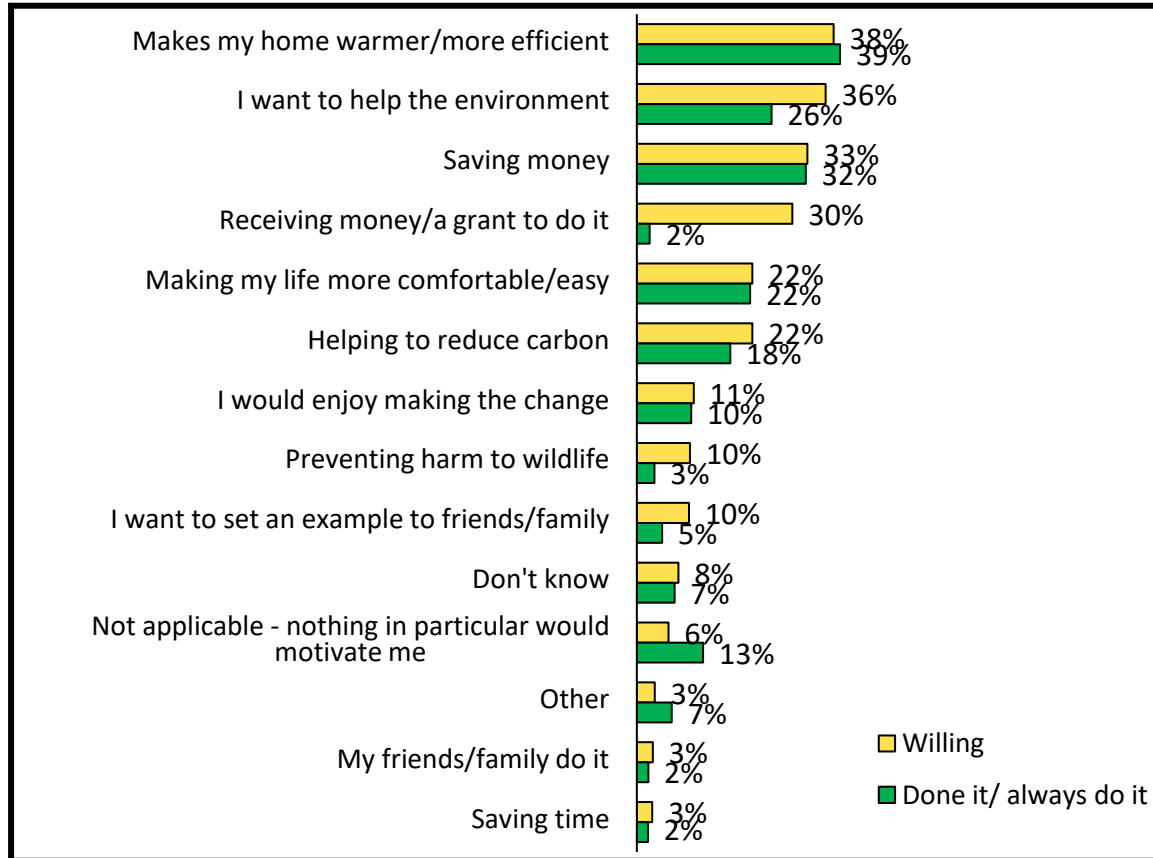


Modify my home to be more resilient to heat and drought

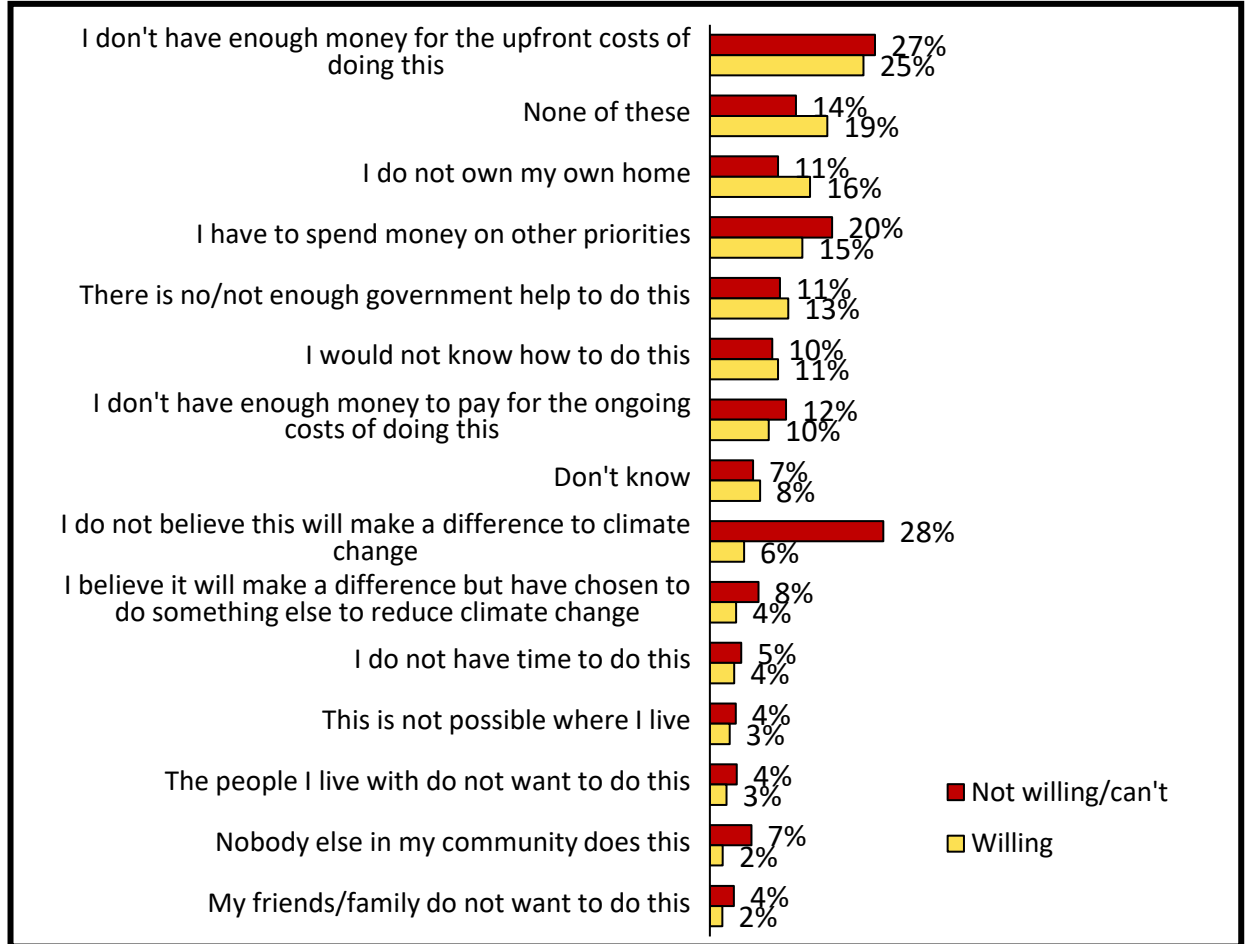
Willingness (Base: 3024)



Key motivations (Base: 1822, 328, multi-choice)



Key barriers (Base: 419, 1822, multi-choice)



Summary/key points

- Willing are motivated to do this but want to be paid/assisted to do so
- Promoting efficiencies savings with resilience measures is motivating

Modify home to be more resilient to heat and drought

What is the most effective practise?

- Make salience of extreme weather conditions less abstract i.e. relevant to individuals

Impact of behaviour
change campaign:
Low



Existing evidence: Low
Level of influence: Medium

See '[Install loft and wall insulation and plug gaps to stop drafts](#)' and '[Avoid unnecessary water usage](#)'

Case study – timely interventions

- Personal experience with an extreme weather event increases willingness to pay higher taxes to support mitigation and adaption (USA, 2019)



Reference

Bergquist et al., [Experiencing a Severe Weather Event Increases Concern About Climate Change](#), 2019

Action dashboard – Modify my home to be more resilient to storms and flooding

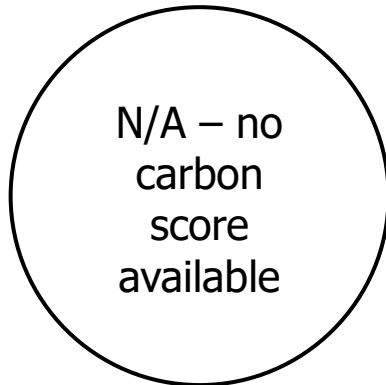


Willingness is moderate (41%), CO² is N/A

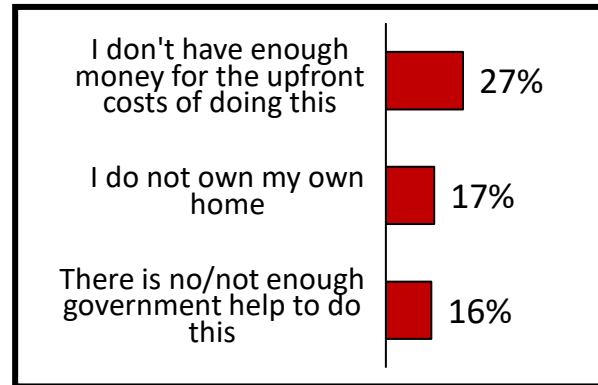
Money restraints and home ownership are key barriers

Action is linked to installing insulation

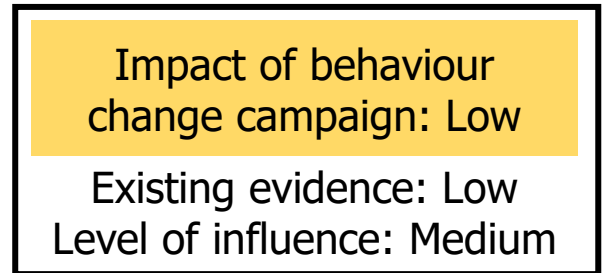
Size of opportunity
(outer line reflects largest opportunity)



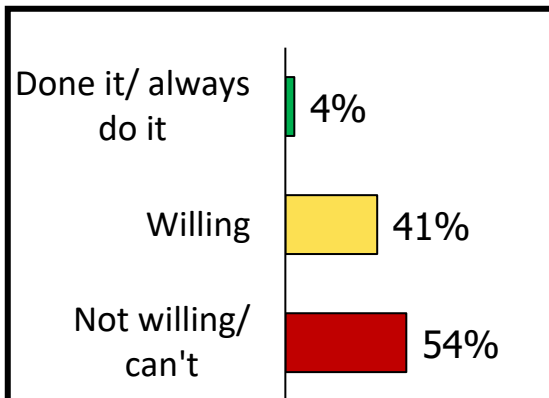
Key barriers (Base: 1244)



Behaviour change evidence

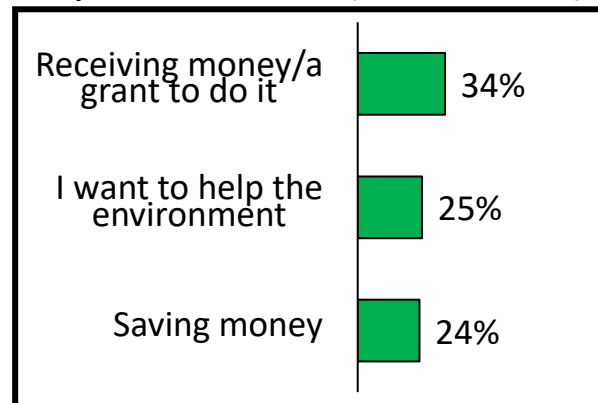


Willingness (Base: 3024)



N/A – no carbon score available

Key motivations (Base: 1244)



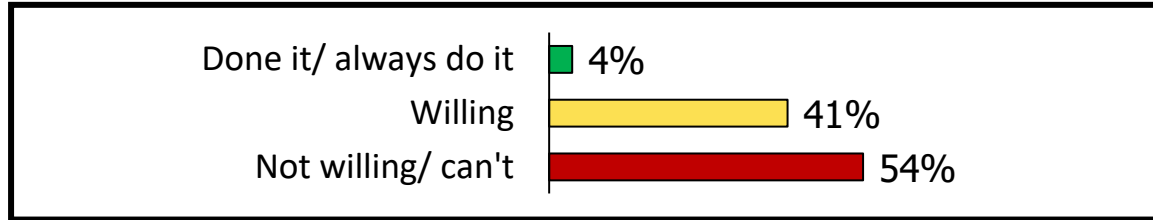
Best marketing approach
Not determined

Most linked action
Install insulation

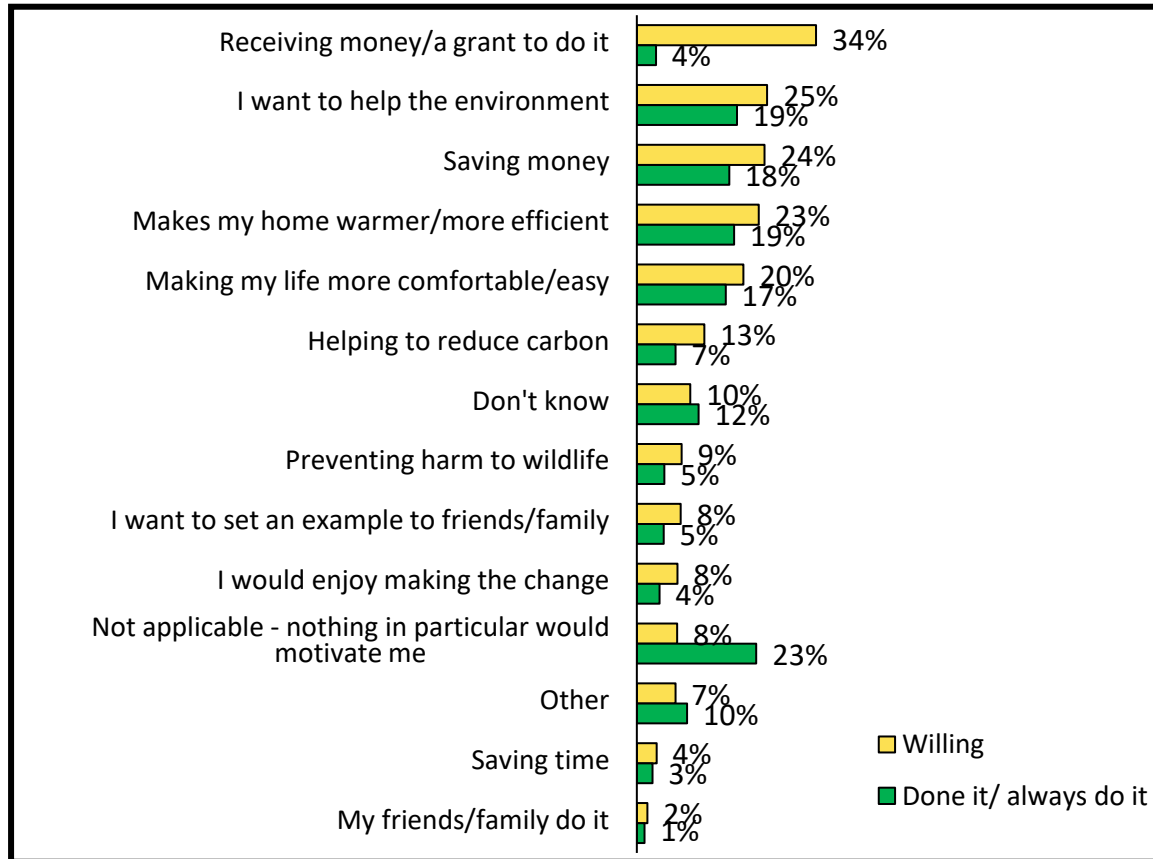


Modify my home to be more resilient to storms and flooding

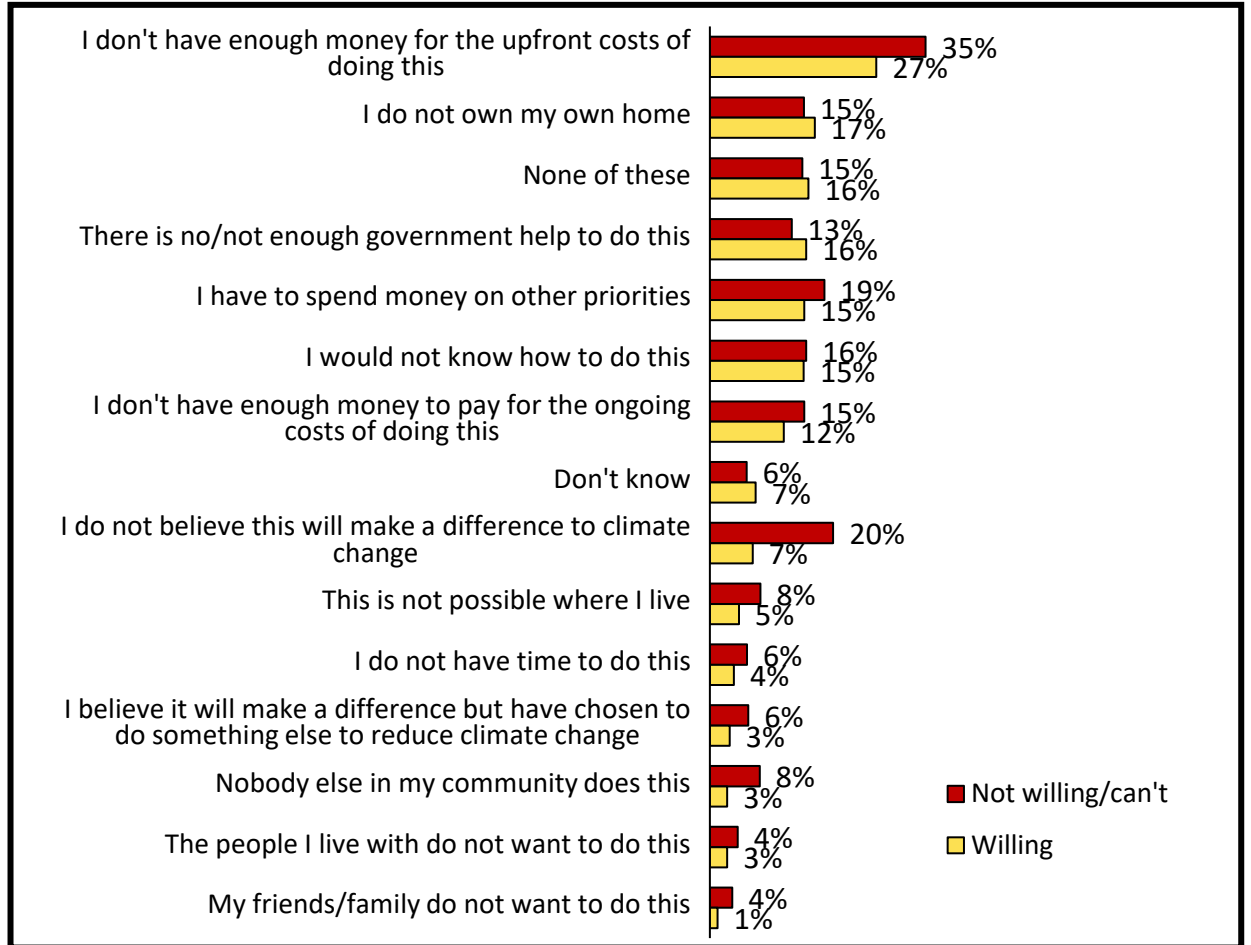
Willingness (Base: 3024)



Key motivations (Base: 1244, 131, multi-choice)



Key barriers (Base: 458, 1244, multi-choice)



Summary/key points

- Willing are motivated to do this but want to be paid/assisted to do so as money is key barrier

Modify my home to be more resilient to storms and flooding

What is the most effective practise?

- Make salience of extreme weather conditions less abstract i.e. relevant to individuals

Impact of behaviour
change campaign:
Low



Existing evidence: Low
Level of influence: Medium

See '[Install loft and wall insulation and plug gaps to stop drafts](#)' and '[Avoid unnecessary water usage](#)'

Case study – timely interventions

- Personal experience with an extreme weather event increases willingness to pay higher taxes to support mitigation and adaption (USA, 2019)



Reference

Bergquist et al., [Experiencing a Severe Weather Event Increases Concern About Climate Change](#), 2019

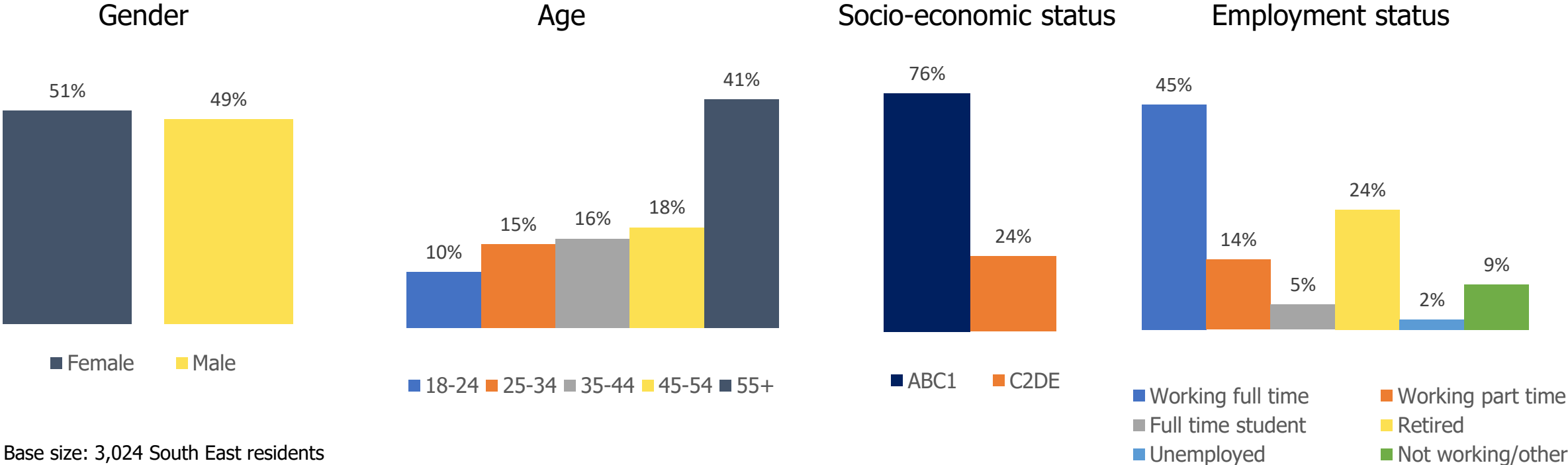
Detailed quantitative survey findings

Online survey - Methodology

What and when:

- Online survey created by the Insight and Engagement Team with sample provided by YouGov (commissioned due to their ability to deliver Mosaic demographic groups without the need to collect personally identifiable information and survey software capabilities)
- **3,024** responses between 14 April and 22 April representative of the South East by interlocking age and gender quotas

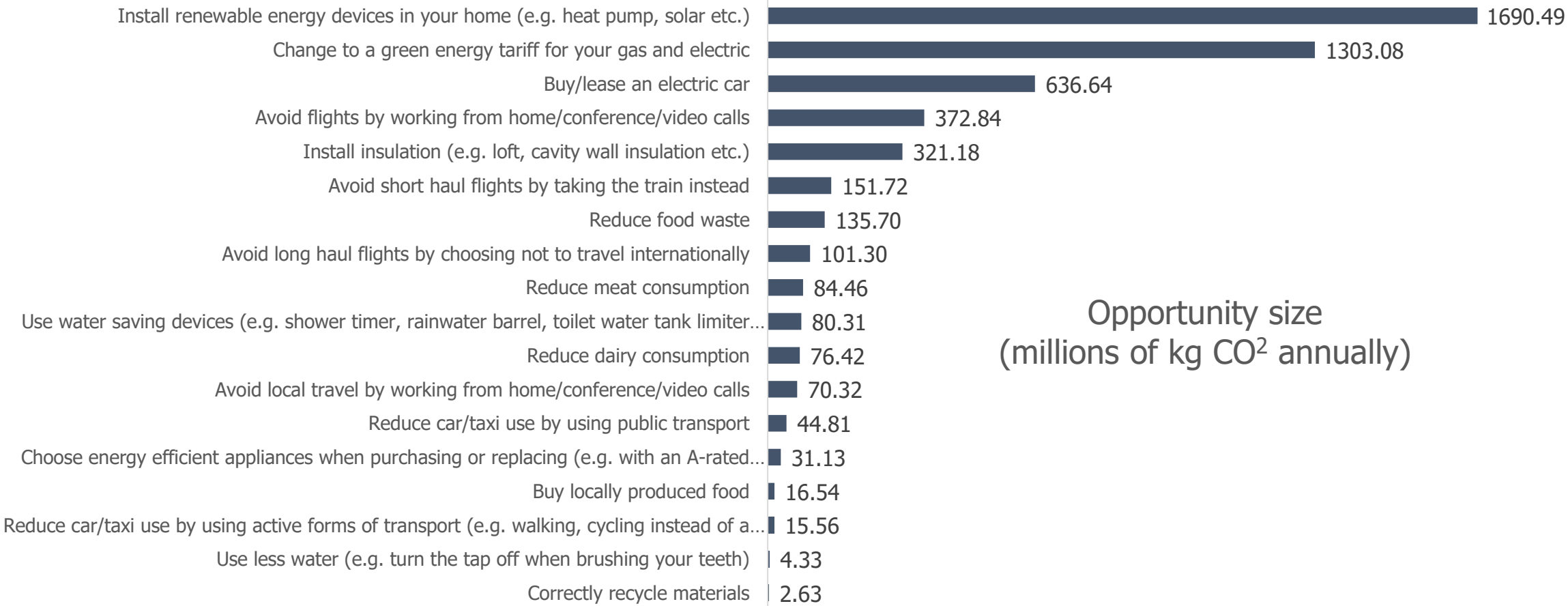
Audience Profile – Audience profile in the South East broadly matched that of Hampshire



Base size: 3,024 South East residents

Installing renewable energy devices is the largest CO² saving opportunity

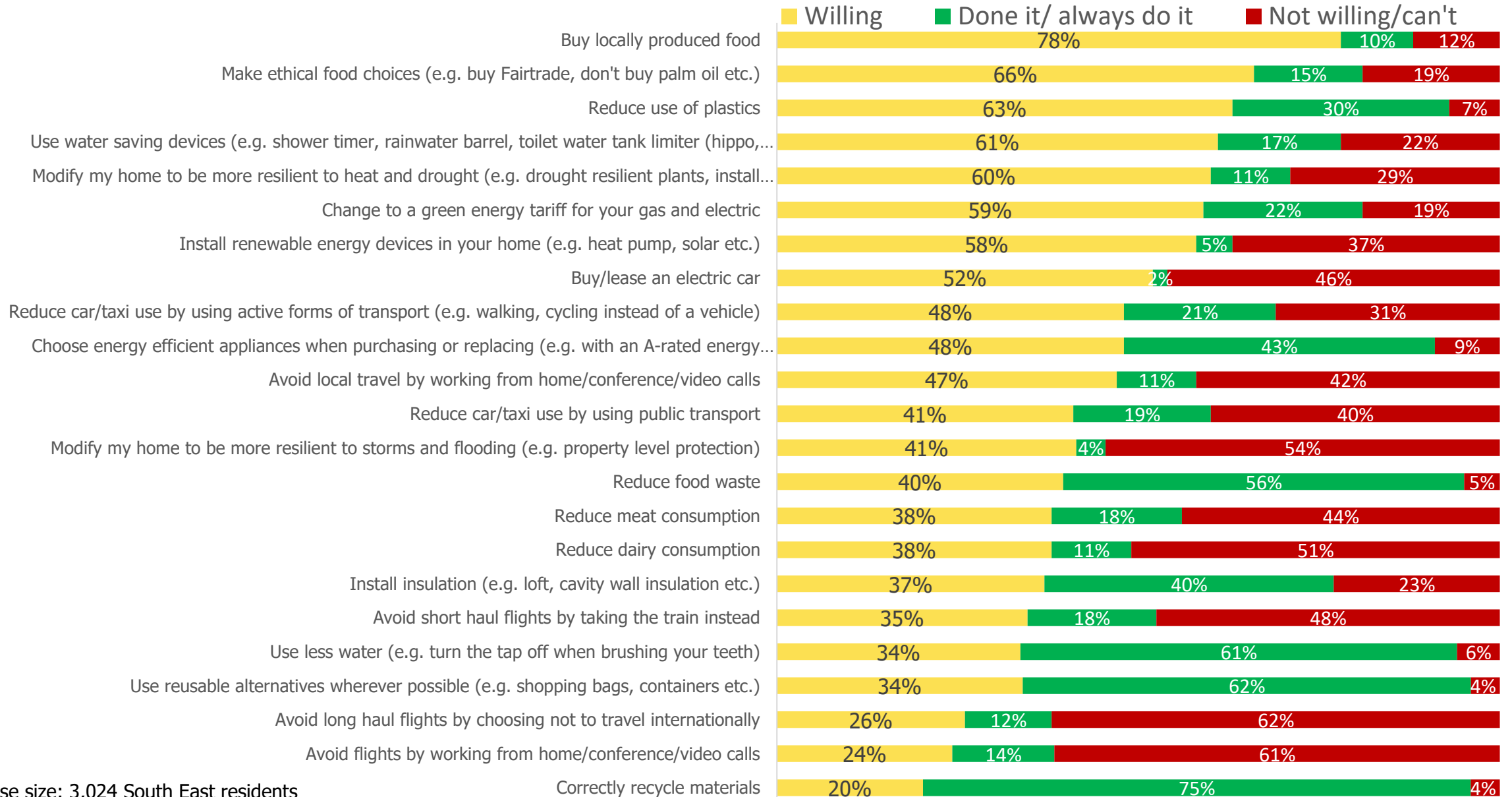
Below is a representation of the carbon opportunity size (% of the Hampshire population willing to take an action multiplied by the amount of carbon saved for doing the action) in millions of kg of CO² equivalent annually



Base size: 3,024 South East residents scaled to represent Hampshire

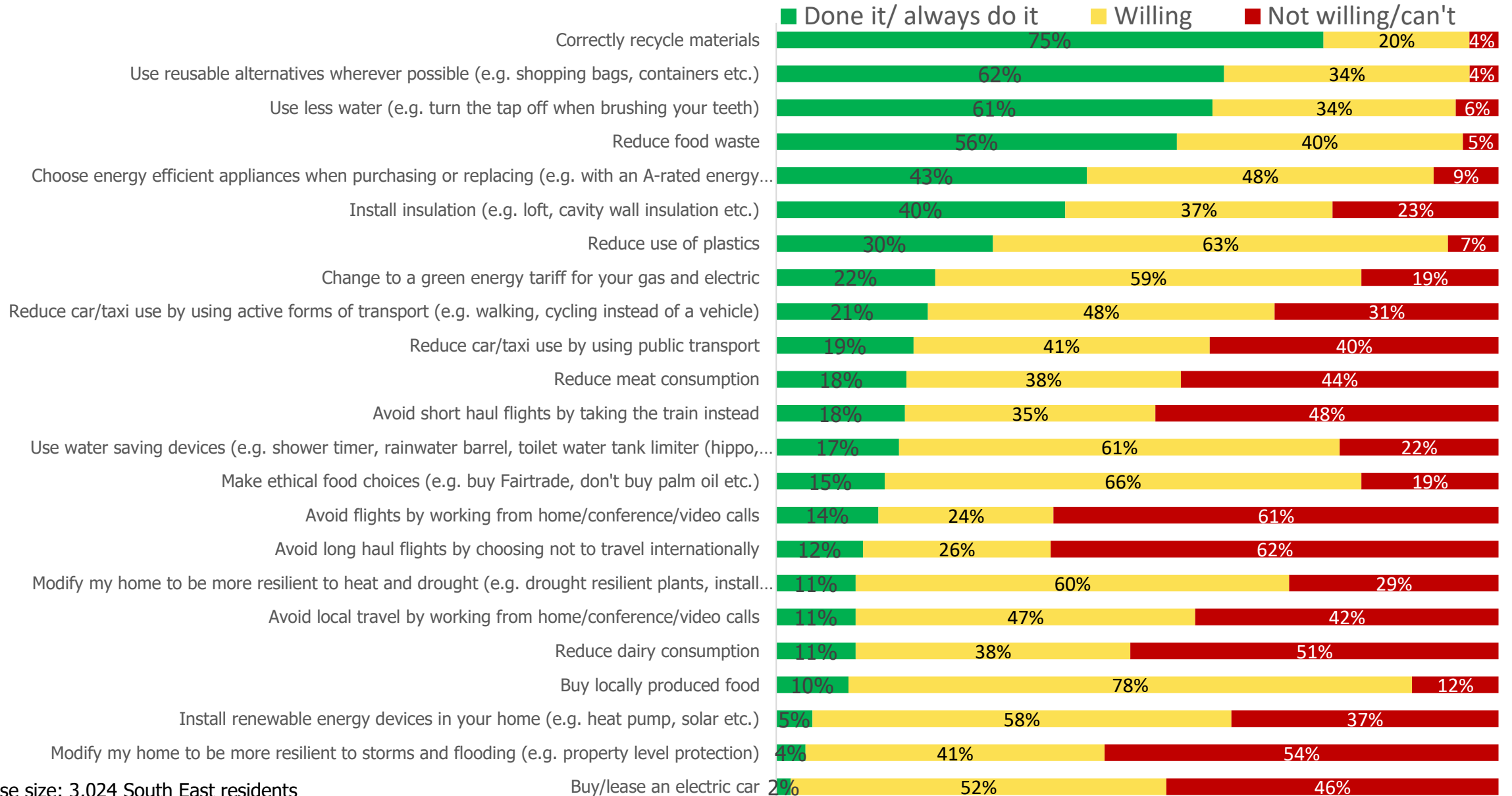
Key takeout – Home energy (renewable energy devices and green energy tariffs) is the largest opportunities to save carbon

Willingness is concentrated in food choices and improvements at home



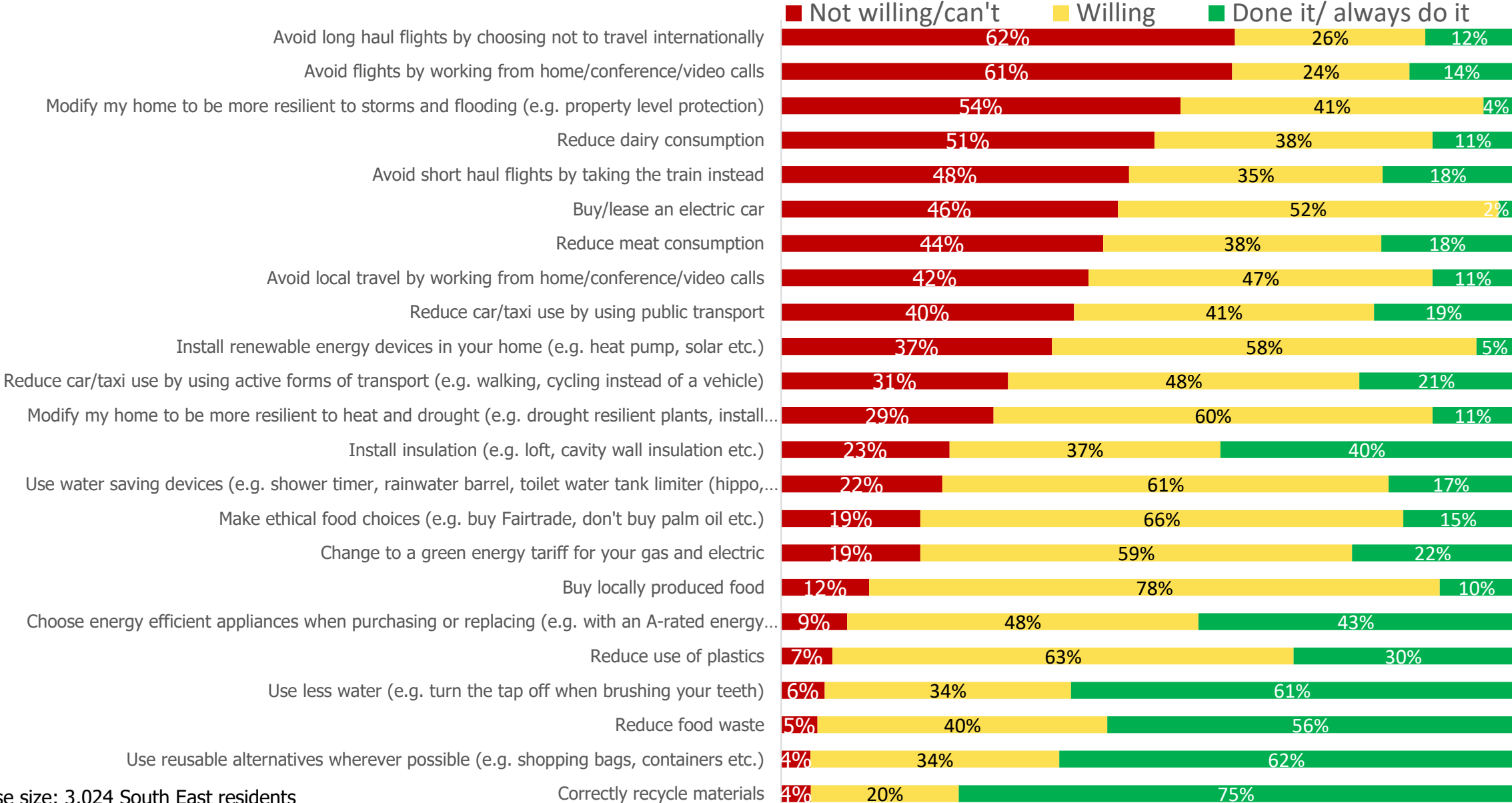
Base size: 3,024 South East residents

Majority of people believe they always recycle and reuse



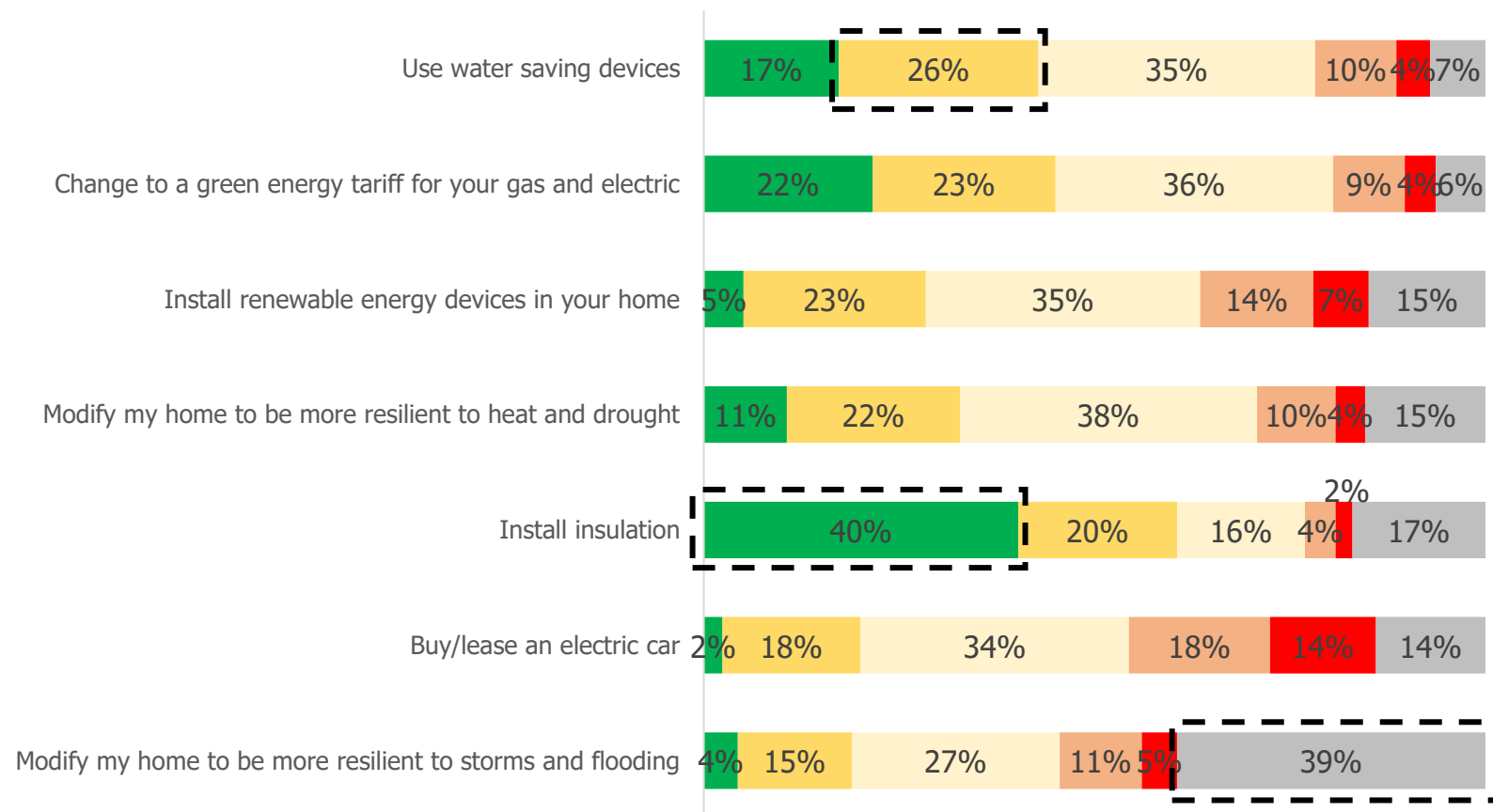
Base size: 3,024 South East residents

Resistance strongest for flying, storm resilience, electric cars and meat and dairy reduction



Base size: 3,024 South East residents

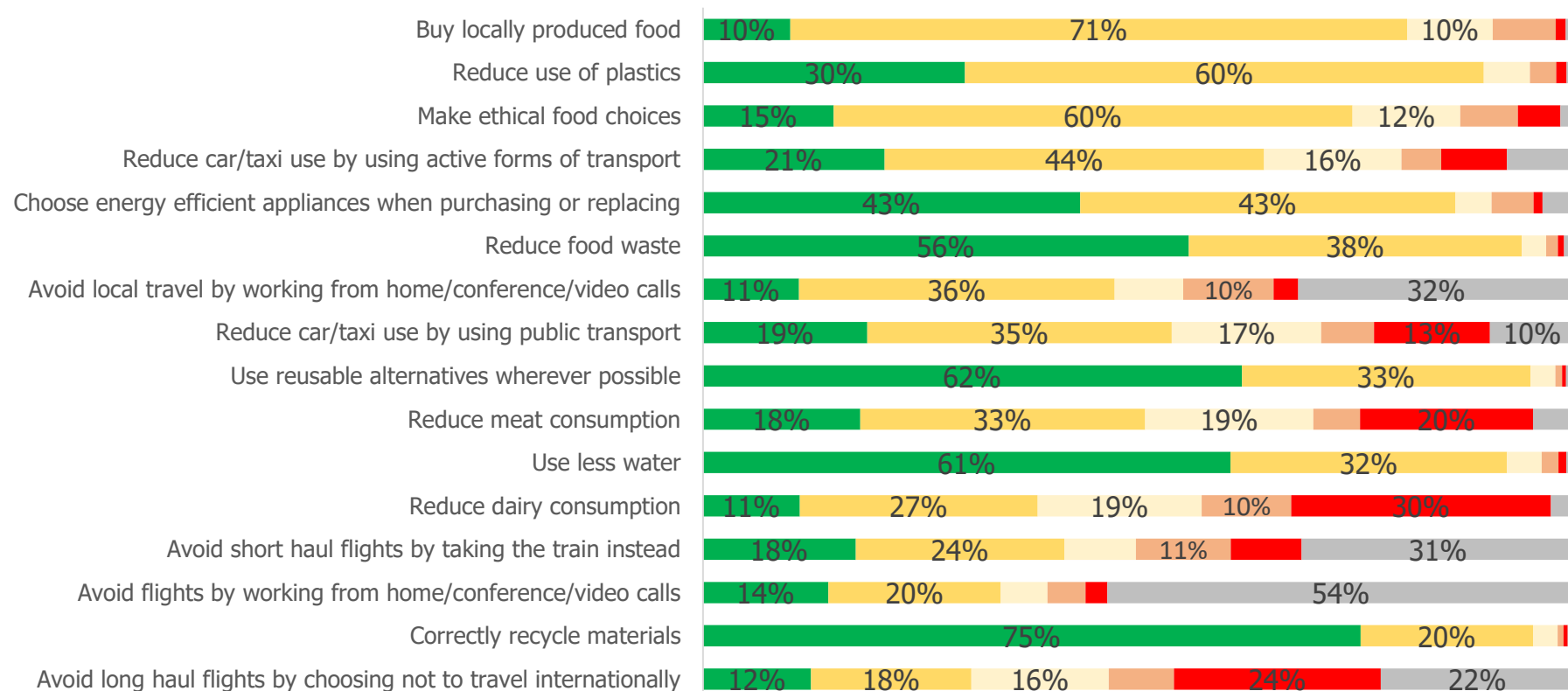
Detailed responses for one-off actions



- The action that the most people are very willing to take is to use water saving devices
- The action that the most people feel they have done is insulating their home
- The action that the most people feel least applies to them is modifying the home to be more resilient to floods and storms

■ I have already taken this action
 ■ I am very willing to take this action
 ■ I am fairly willing to take this action
■ I am not very willing to take this action
 ■ I am not at all willing to take this action
 ■ Not applicable – this does not apply to me

Detailed responses for continuous actions



- I always do this action
- I sometimes do this action but I am willing to do it more
- I sometimes do this action and I am not willing to do it more
- I never do this action but I am willing to do it
- I never do this action and I am not willing to do it
- Not applicable – this does not apply to me

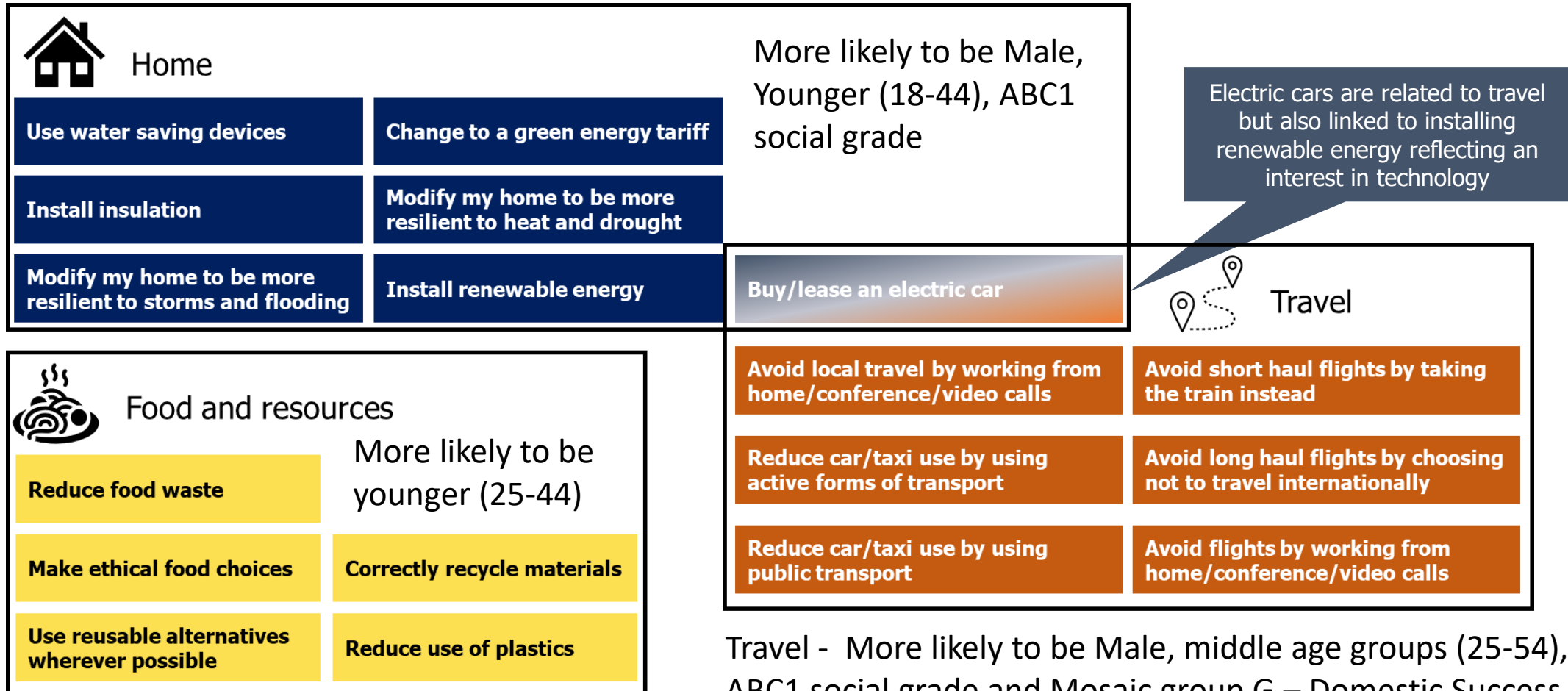
The actions that most people already do and are willing to do more of are **buying locally produced food, reducing use of plastics and making ethical food choices**

The actions that most people do not already do but are willing to do are **avoid short haul flights by taking the train instead, avoid local travel by working from home and reduce dairy consumption**

Note: Any response with <10%, the number has been removed from the graph

Actions link together in clusters

There are three larger clusters of actions (Home, Food and Travel) where being willing to take one makes a person more likely to be willing to do another



Base size: 3,024 South East residents

Key takeout – Targeting people who have taken one action or are willing to take it may be a good way to target them for another related action

Action willingness clusters together

Table below shows the relationship between being willing to take one climate change action and any other action. Colour indicates the strength of this correlation with 1 (Dark Green) being fully correlated and 0 or dark red being completely unrelated. Any negative scores mean that being willing to take an action makes people less likely to take the related action.



Home



Travel



Food

	Use water saving devices (e.g. shower timer, rainwater butler)	Install insulation (e.g. loft, cavity wall insulation etc)	Install renewable energy devices in your home (e.g. solar panels, wind turbines)	Change to a green energy tariff for your gas and electricity	Buy/lease an electric car	Modify my home to be more resilient to heat and cold	Modify my home to be more resilient to storms and flooding	Use less water (e.g. turn the tap off when brushing your teeth, shorter showers)	Choose energy efficient appliances when purchasing	Reduce car/taxi use by using active forms of transport	Reduce car/taxi use by using public transport	Avoid short haul flights by taking the train instead	Avoid long haul flights by choosing not to travel internationally	Avoid flights by working from home/conference/working from home	Reduce meat consumption	Reduce dairy consumption	Buy locally produced food	Reduce food waste	Make ethical food choices (e.g. buy Fairtrade, don't buy fast fashion)	Use reusable alternatives wherever possible (e.g. shopping bags, water bottles)	Correctly recycle materials	Reduce use of plastics	
Use water saving devices (e.g. shower timer, rainwater butler)	1	0.372849	0.344101	0.306517	0.216348	0.354581	0.303667	0.076911	0.077466	0.145292	0.11882	0.103032	0.093268	0.097515	0.147308	0.058293	0.129346	0.112133	0.101597	0.138624	0.068501	0.022903	0.067907
Install insulation (e.g. loft, cavity wall insulation etc)	0.372849	1	0.378494	0.311057	0.218455	0.381514	0.419917	0.068274	0.114399	0.117683	0.094845	0.115582	0.141649	0.119014	0.13703	0.055404	0.112232	0.08089	0.120475	0.104838	0.095676	0.074858	0.086869
Install renewable energy devices in your home (e.g. solar panels, wind turbines)	0.344101	0.378494	1	0.277094	0.328044	0.445451	0.411956	0.031582	0.030381	0.139741	0.132038	0.122008	0.119854	0.142789	0.176826	0.051188	0.103026	0.117859	0.083121	0.096189	0.027669	0.01308	0.0398
Change to a green energy tariff for your gas and electricity	0.306517	0.311057	0.277094	1	0.201909	0.286195	0.253598	0.039609	0.127741	0.102729	0.085097	0.087589	0.06469	0.066424	0.079296	0.082985	0.097635	0.07027	0.099392	0.136688	0.059798	0.04942	0.073161
Buy/lease an electric car	0.216348	0.218455	0.328044	0.201909	1	0.24459	0.202242	0.039157	0.018888	0.194588	0.173831	0.141475	0.145255	0.114999	0.178936	0.111903	0.136289	0.127183	0.081198	0.153262	0.05934	0.021113	0.054777
Modify my home to be more resilient to heat and cold	0.354581	0.381514	0.445451	0.286195	0.24459	1	0.455181	0.045803	0.031892	0.142969	0.137647	0.104937	0.120265	0.111003	0.136586	0.078102	0.101437	0.100615	0.093845	0.126081	0.05033	-0.0083	0.053419
Modify my home to be more resilient to storms and flooding	0.303667	0.419917	0.411956	0.253598	0.202242	0.455181	1	0.02674	0.018009	0.092764	0.095417	0.083108	0.093611	0.124977	0.154473	0.049721	0.097697	0.104757	0.046374	0.089227	0.040595	-0.00098	0.004784
Use less water (e.g. turn the tap off when brushing your teeth, shorter showers)	0.076911	0.068274	0.031582	0.039609	0.039157	0.045803	0.02674	1	0.170534	0.100361	0.080458	0.041544	0.00555	0.084526	0.100499	0.090047	0.071023	0.079534	0.265073	0.137954	0.221288	0.22105	0.216149
Choose energy efficient appliances when purchasing	0.077466	0.114399	0.030381	0.127741	0.018888	0.031892	0.018009	0.170534	1	0.099149	0.08169	0.085354	0.032335	0.046075	0.069803	0.064426	0.092214	0.117211	0.168914	0.167083	0.169807	0.182706	0.213171
Reduce car/taxi use by using active forms of transport	0.145292	0.117683	0.139741	0.102729	0.194588	0.142969	0.092764	0.100361	0.099149	1	0.363987	0.213178	0.15055	0.115977	0.191867	0.211826	0.171683	0.187389	0.179587	0.202096	0.120645	0.069677	0.142913
Reduce car/taxi use by using public transport	0.11882	0.094845	0.132038	0.085097	0.173831	0.137647	0.095417	0.080458	0.08169	0.363987	1	0.210389	0.148775	0.118699	0.139851	0.144303	0.145248	0.12534	0.117157	0.160749	0.061588	0.068	0.086725
Avoid short haul flights by taking the train instead	0.103032	0.115582	0.122008	0.087589	0.141475	0.104937	0.083108	0.041544	0.085354	0.213178	0.210389	1	0.261579	0.209626	0.192595	0.126334	0.154994	0.132626	0.104591	0.13207	0.092965	0.070304	0.094472
Avoid long haul flights by choosing not to travel internationally	0.093268	0.141649	0.119854	0.06469	0.145255	0.120265	0.093611	0.00555	0.032335	0.15055	0.148775	0.261579	1	0.168523	0.163347	0.139018	0.163962	0.103127	0.047679	0.106463	0.047359	0.034899	0.074973
Avoid flights by working from home/conference/working from home	0.097515	0.119014	0.142789	0.066424	0.114999	0.111003	0.124977	0.084526	0.046075	0.115977	0.118699	0.209626	0.168523	1	0.477409	0.054963	0.092917	0.077716	0.120867	0.080149	0.119184	0.118688	0.081964
Avoid local travel by working from home/conference/working from home	0.147308	0.13703	0.176826	0.079296	0.178936	0.136586	0.154473	0.100499	0.069803	0.191867	0.139851	0.192595	0.163347	0.477409	1	0.095091	0.136401	0.143724	0.149672	0.108639	0.150436	0.121453	0.131319
Reduce meat consumption	0.058293	0.055404	0.051188	0.082985	0.111903	0.078102	0.049721	0.090047	0.064426	0.211826	0.144303	0.126334	0.139018	0.054963	0.095091	1	0.293604	0.157711	0.145907	0.217057	0.076818	0.029636	0.138505
Reduce dairy consumption	0.129346	0.112232	0.103026	0.097635	0.136289	0.101437	0.097697	0.071023	0.092214	0.171683	0.145248	0.154994	0.163962	0.092917	0.136401	0.293604	1	0.152374	0.115879	0.163092	0.046257	0.040268	0.092053
Buy locally produced food	0.112133	0.08089	0.117859	0.07027	0.127183	0.100615	0.104757	0.079534	0.117211	0.187389	0.12534	0.132626	0.103127	0.077716	0.143724	0.157711	0.152374	1	0.170093	0.28137	0.136291	0.077453	0.205877
Reduce food waste	0.101597	0.120475	0.083121	0.099392	0.081198	0.093845	0.046374	0.265073	0.168914	0.179587	0.117157	0.104591	0.047679	0.120867	0.149672	0.145907	0.115879	0.170093	1	0.202318	0.303283	0.28449	0.306843
Make ethical food choices (e.g. buy Fairtrade, don't buy fast fashion)	0.138624	0.104838	0.096189	0.136688	0.153262	0.126081	0.089227	0.137954	0.167083	0.202096	0.160749	0.13207	0.106463	0.080149	0.108639	0.217057	0.163092	0.28137	0.202318	1	0.155595	0.100183	0.251421
Use reusable alternatives wherever possible (e.g. shopping bags, water bottles)	0.068501	0.095676	0.027669	0.059798	0.05934	0.05033	0.040595	0.221288	0.169807	0.120645	0.061588	0.092965	0.047359	0.119184	0.150436	0.076818	0.046257	0.136291	0.303283	0.155595	1	0.26328	0.318786
Correctly recycle materials	0.022903	0.074858	0.01308	0.04942	0.021113	-0.0083	-0.00098	0.22105	0.182706	0.069677	0.068	0.070304	0.034899	0.118688	0.121453	0.029636	0.040268	0.077453	0.28449	0.100183	0.26328	1	0.22984
Reduce use of plastics	0.067907	0.086869	0.0398	0.073161	0.054777	0.053419	0.004784	0.216149	0.213171	0.142913	0.086725	0.094472	0.074973	0.081964	0.131319	0.138505	0.092053	0.205877	0.306843	0.251421	0.318786	0.22984	1

Key takeout – Targeting people who have taken or are willing to take one action can help them to take a related action

COVID-19 is making 1 in 3 people think and act differently on climate change

In an open-ended question at the end of the survey, we asked respondents whether Coronavirus has made them reconsider any of their actions. Respondents were given an opportunity to spontaneously reflect on how Coronavirus has changed their routines and lifestyles.

The open-ended question was as follows:

Thinking generally about the answers you provided in this survey. In which, if any, ways would you say the current public health situation (i.e. the outbreak of Covid-19 (Coronavirus)) causes you to think differently about any of the answers you provided?

- COVID-19 has not made me think differently about my actions
- COVID-19 has encouraged me to undertake more environmentally friendly behaviours
- COVID-19 has encouraged me to undertake more environmentally unfriendly behaviours

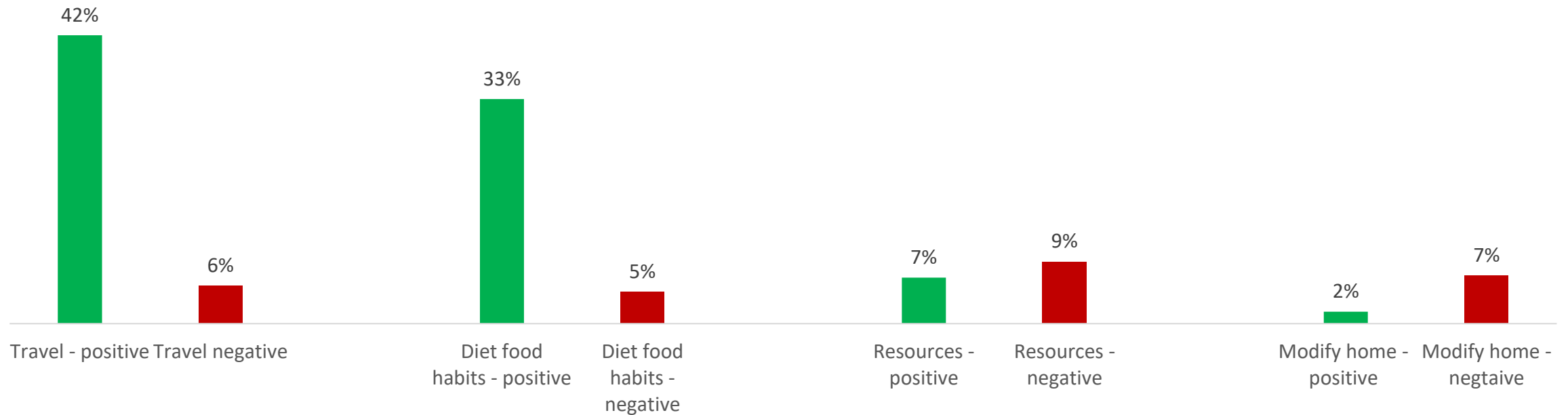


Base size: 3024

As we are interested in understanding what behaviours are particularly relevant and salient at this time, we will be looking into more detail at **34% who have reported that Coronavirus has changed their behaviour**

Travel climate actions are where most people are thinking differently due to COVID-19

People had mentioned many positives involving travel and diet whereas resources and their willingness and ability to modify their home were more mixed.



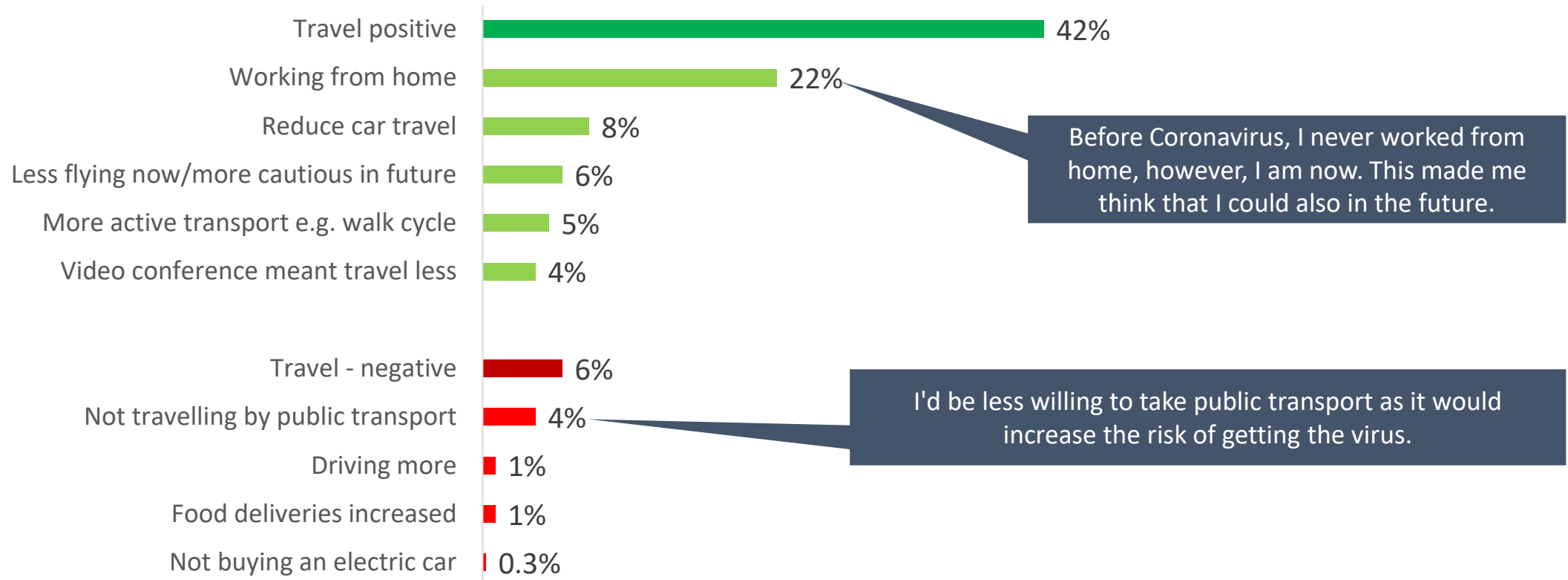
Base size: 985

Key takeout – Behaviour has changed in a number of areas, particularly travel and diet – this presents an opportunity to encourage or reinforce behaviours that are positive for climate action

What would people change – Travel positive and negative



42% of people who reported COVID-19 having changed their behaviour said they would travel more sustainably. The most common reason for this was working from home. Many people expressed a desire to continue doing so



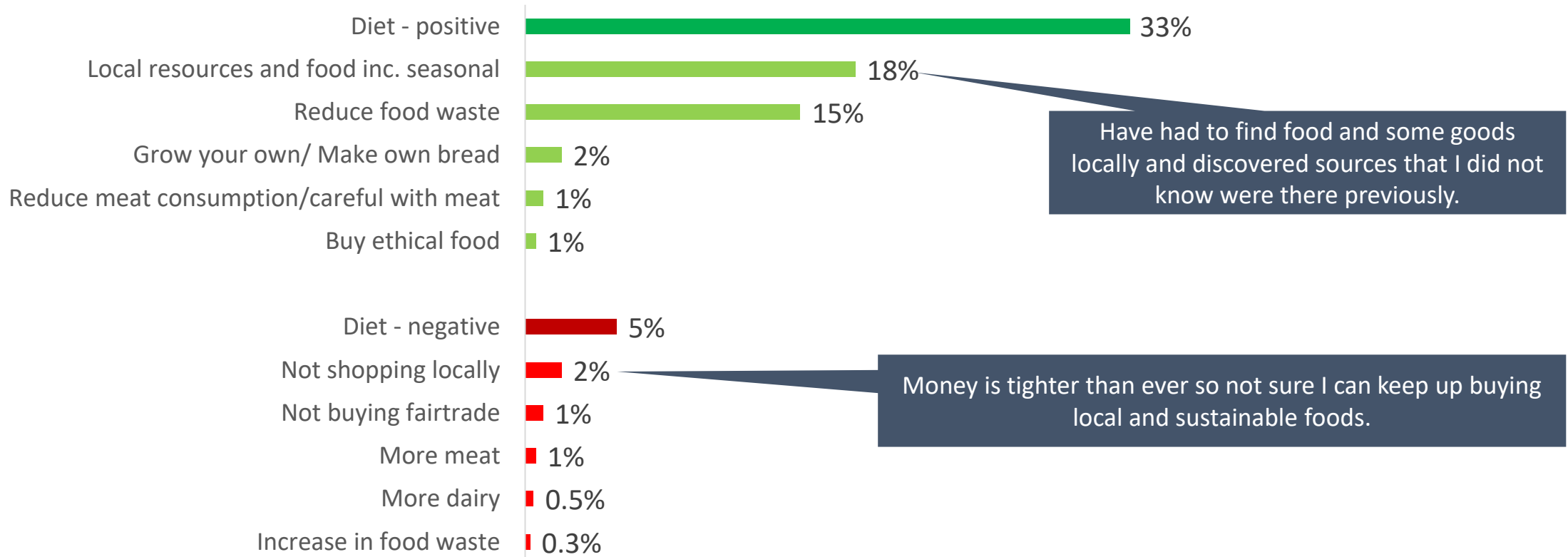
Base size: 985

Key takeout – There is a large positive opportunity to lock in working from home behaviours to reduce unnecessary travel and enhance work/life balances. This may be needed to balance out a drop in use of public transport

What would people change – Diet positive and negative



33% of people who reported COVID-19 having changed their behaviour said they are eating differently with many finding local foods, which they link with sustainability.



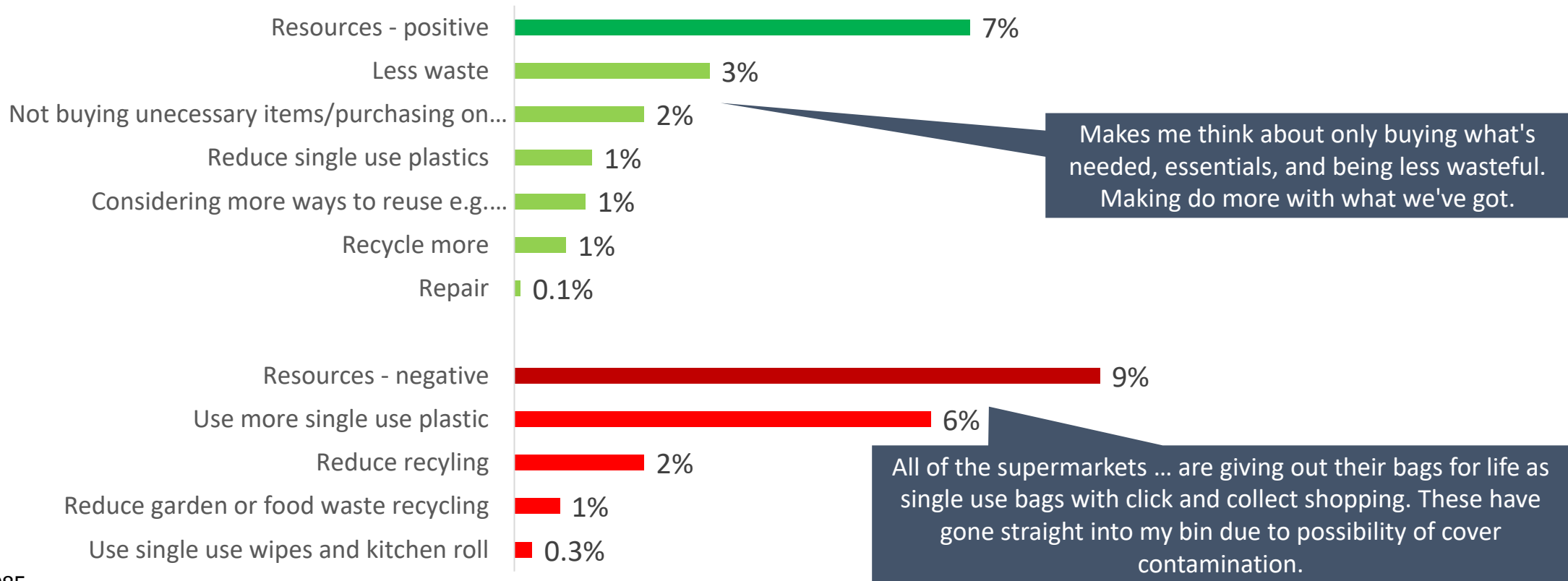
Base size: 985

Key takeout – People believe that shopping locally is helping carbon impact when it might make little difference

What would people change – Resources positive and negative



9% of people who reported COVID-19 having changed their behaviour said they use resources less sustainably. The most common reason for this was single use plastic



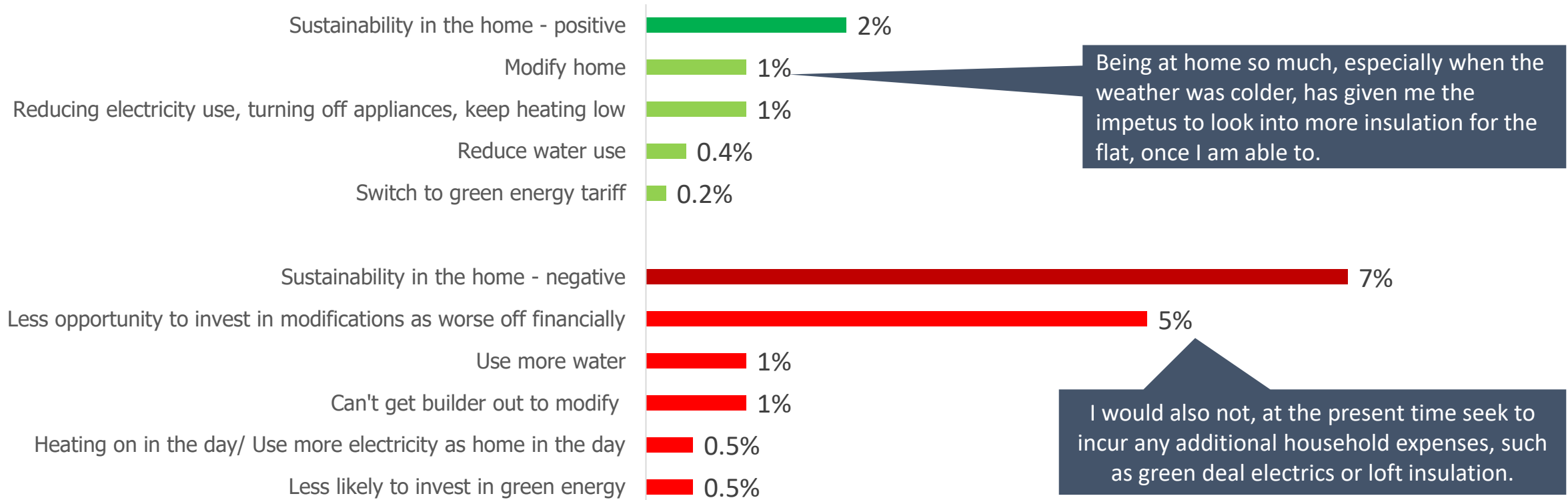
Base size: 985

Key takeout – While many respondents are making positive changes there is evidence of waste that would not usually have occurred

What would people change – Home and energy positive and negative



7% of people who reported COVID-19 having changed their behaviour said they would or are using energy less sustainably. The most common reason for this was feeling they had less ability to invest in modifications



Base size: 985

Key takeout – Many respondents may be thinking more about sustainable actions but feel less able to do this. Identifying easy to do and safe ways to save money and energy could go down well with citizens

Priorities for change in the next twelve months are led by diet

Among those who were willing to take any of the 23 climate related actions we asked whether people felt they were **likely to make changes in the next twelve months**. Below shows the broad areas where people felt they were most likely to make change in the short term.

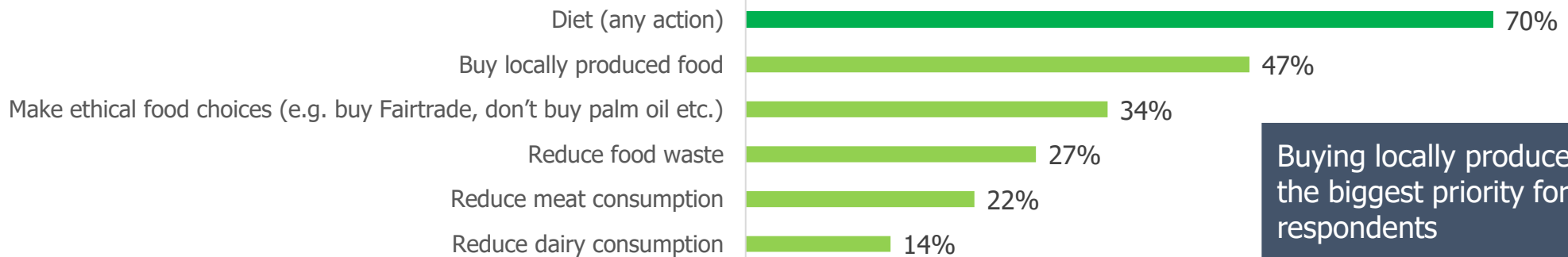


Base size: 2,995

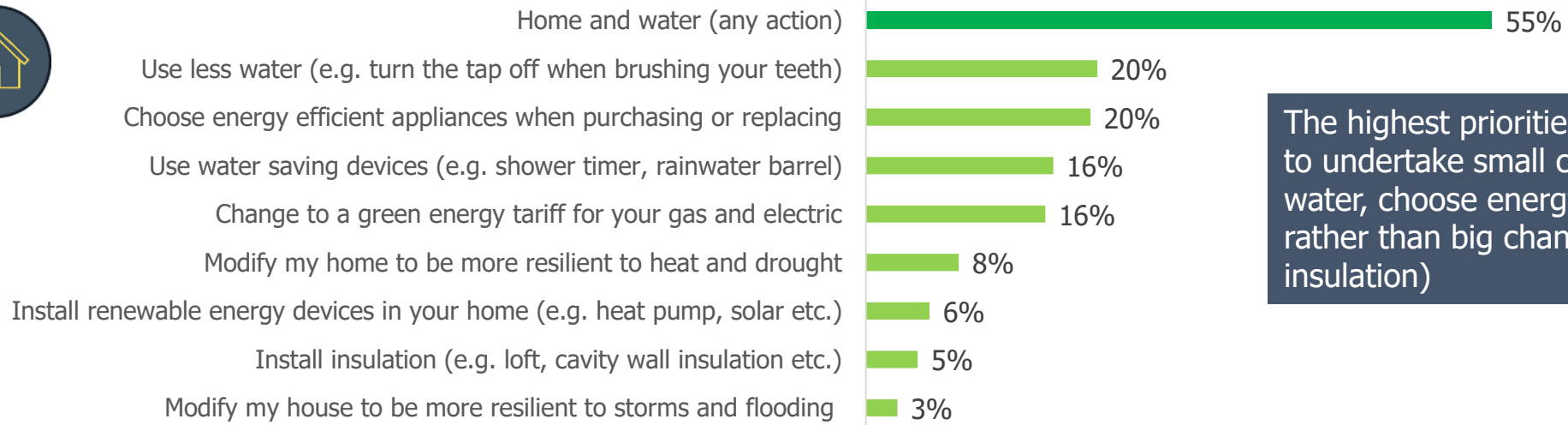
Key takeout – Immediate changes are dominated by diet perhaps reflecting the level of control people have and the relative ease to make change

Priorities for change 1/2

Buying locally produced food is the single climate action that is most mentioned as a change that respondents expect to make in the next 12 months



Buying locally produced food was the biggest priority for respondents



The highest priorities in the household were to undertake small changes (e.g. use less water, choose energy efficient appliances) rather than big changes (house modification, insulation)

Base size: 2,995

Key takeout – Respondents are taking climate actions but potentially not the ones the County Council would want them to take to save the most carbon

Priorities for change 2/2

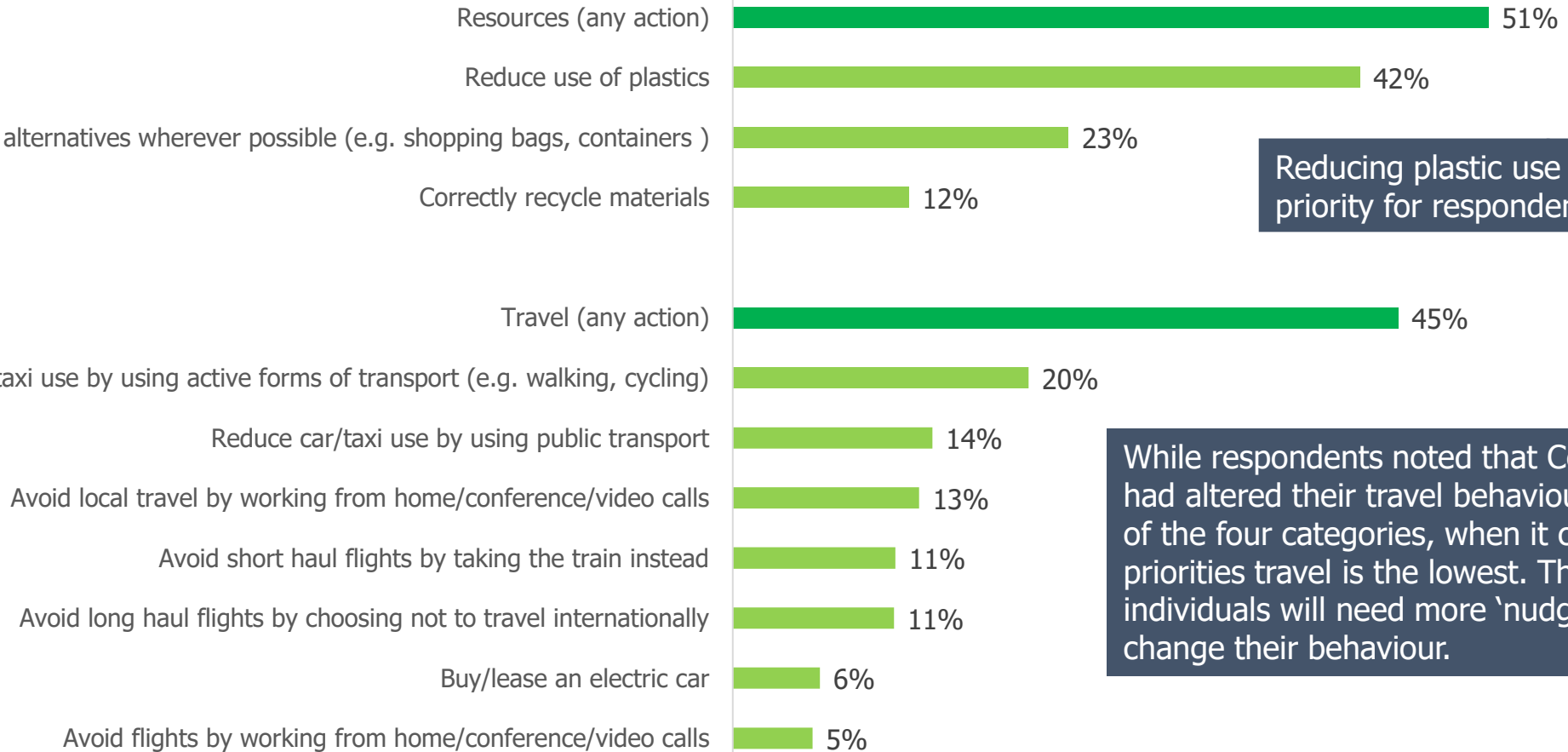
Buying locally produced food is the single climate action that is most mentioned as a change that respondents expect to make in the next 12 months



Use reusable alternatives wherever possible (e.g. shopping bags, containers)



Reduce car/taxi use by using active forms of transport (e.g. walking, cycling)



Reducing plastic use was a clear priority for respondents.

While respondents noted that Coronavirus had altered their travel behaviours most out of the four categories, when it comes to priorities travel is the lowest. This suggest individuals will need more 'nudging' to change their behaviour.

Base size: 2,995

Key takeout – Respondents are taking climate actions but potentially not the ones the County Council would want them to take to save the most carbon

Who is best to target for each action – demographic groups analysed by the University of Southampton

Action	Groups that are significantly more likely to be willing to take the action
Use water saving devices	Women, Mosaic Group C – County Living, Fulltime employed, Unemployed
Install insulation (e.g. loft, cavity wall insulation etc.)	35-44, Mosaic Group C – County Living, Mosaic Group G - Domestic Success, Fulltime employed, Unemployed
Install renewable energy devices in your home	ABC1 social grade, 18-54, East Sussex, Isle of Wight, C - Country Living, G - Domestic Success, N - Urban Cohesion, Fulltime employed, Unemployed, LinkedIn, Pinterest, WhatsApp
Change to a green energy tariff for your gas and electric	Women, ABC1 social grade, 18-54, Oxfordshire, N - Urban Cohesion, Fulltime employed, Unemployed, 2 children in household, Pinterest, WhatsApp
Buy/lease an electric car	ABC1 social grade, 18-34, 45-54, A - City Prosperity, B - Prestige Positions, C - Country Living, G - Domestic Success, Fulltime employed, Unemployed, Twitter, WhatsApp
Modify my home to be more resilient to heat and drought	ABC1 social grade, Isle of Wight, B - Prestige Positions, N - Urban Cohesion, Fulltime employed, Unemployed
Modify my home to be more resilient to storms and flooding	ABC1 social grade, West Sussex, A - City Prosperity, C - Country Living, G - Domestic Success, Fulltime employed, Unemployed
Use less water	Men, 25-34, Oxfordshire, Twitter
Choose energy efficient appliances when purchasing or replacing	18-34, Isle of Wight, Surrey, Oxfordshire, O - Rental Hubs, Never married
Reduce car/taxi use by using active forms of transport	A - City Prosperity, C - Country Living, F - Suburban Stability, G - Domestic Success, H - Aspiring Homemakers, Living as married, Snapchat
Reduce car/taxi use by using public transport	Berkshire, Buckinghamshire, A - City Prosperity, B - Prestige Positions, F - Suburban Stability, G - Domestic Success, N - Urban Cohesion, Fulltime employed, LinkedIn, Skype
Avoid short haul flights by taking the train instead	18-24, A - City Prosperity, B - Prestige Positions, C - Country Living, G - Domestic Success H - Aspiring Homemakers, Skype
Avoid long haul flights by choosing not to travel internationally	Male, 18-24, A - City Prosperity, C - Country Living, G - Domestic Success, Skype
Avoid flights by working from home/conference/video calls	A - City Prosperity, Surrey
Avoid local travel by working from home/conference/video calls	25-34, Berkshire, Oxfordshire, C - Country Living, E - Senior Security, H - Aspiring Homemakers, LinkedIn, Skype
Reduce meat consumption	18-24, G - Domestic Success, I - Family Basics, M - Modest Traditions, 4 years and under, Instagram, Snapchat, WhatsApp
Reduce dairy consumption	Female, 18-24, East Sussex, Oxfordshire, G - Domestic Success, I - Family Basics, M - Modest Traditions, O - Rental Hubs, Working (Full or part-time), Skype
Buy locally produced food	Female, 25-54, H - Aspiring Homemakers, K - Municipal Tenants, O - Rental Hubs, Instagram, Twitter
Reduce food waste	Female, 18-44, H - Aspiring Homemakers, Married/ Civil Partnership, Never married
Make ethical food choices	Female, 25-44, G - Domestic Success, Pinterest, Instagram
Use reusable alternatives wherever possible	Male, 25-44, Oxfordshire, West Sussex, C - Country Living, H - Aspiring Homemakers, Full-time working, Living as married, Never married
Correctly recycle materials	18-44, East Sussex, isle of Wight, H - Aspiring Homemakers, I - Family Basics, K - Municipal Tenants, O - Rental Hubs
Reduce use of plastics	25-44, Oxfordshire, Surrey, Living as married

Who is best to target for each action – combined demographic target groups 1/3

Action	Profile	Count (# of observ.)	Proportion (%)
Use water saving devices (e.g. shower timer, rainwater barrel, toilet water tank limiter (hippo, brick))	Female, Full time, Children over 18 years old, Facebook messenger	91	3.01
	Female, Full time, Facebook messenger	448	14.81
	Female, Full time, Facebook messenger, less than 55 years old, not Widowed, having more or less than one child (i.e. except of one child), and ABC1 social grade	276	9.13
Install insulation (e.g. loft, cavity wall insulation etc.)	Full time, 35-44 years old, Pinterest	58	1.92
	Full time, 35-44 years old	348	11.51
	Full time, 35-44 years old, ABC1 social grade, not Widowed, at least one child, and Children Profile: 4 years and under	68	2.25
	Full time, 35-44 years old, ABC1 social grade, not Widowed, at least one child, and Children Profile: 12 to 16 years	36	1.19
Install renewable energy devices in your home (e.g. heat pump, solar etc.)	Full time, less than 55 years old, ABC1 social grade, not Widowed, uses LinkedIn & Pinterest & WhatsApp	66	2.18
	Full time, less than 55 years old, ABC1 social grade, not Widowed, Children over 18 years old, uses LinkedIn	36	1.19
	Full time, less than 55 years old, ABC1 social grade, not Widowed, uses LinkedIn	396	13.10
	Full time, less than 55 years old, ABC1 social grade, not Widowed, uses Pinterest	142	4.70
	Full time, less than 55 years old, ABC1 social grade, not Widowed, Children over 18 years old, uses WhatsApp	73	2.41
	Full time, less than 55 years old, ABC1 social grade, not Widowed, uses WhatsApp	826	27.31
Change to a green energy tariff for your gas and electric	Female, full time, less than 55 years old, ABC1 social grade, Married/ Civil Partnership, 2 children, uses WhatsApp	31	1.03
	Female, full time, less than 55 years old, ABC1 social grade, Married/ Civil Partnership, uses Pinterest	43	1.42
	Female, full time, less than 55 years old, ABC1 social grade, Married/ Civil Partnership, uses WhatsApp	134	4.43
	Female, full time, less than 55 years old, ABC1 social grade, Married/ Civil Partnership, uses Skype	32	1.06
	Female, full time, less than 55 years old, ABC1 social grade, uses Pinterest	99	3.27
	Female, full time, less than 55 years old, ABC1 social grade, uses WhatsApp	344	11.38
Buy/lease an electric car	Female, full time, less than 55 years old, ABC1 social grade, uses Skype	89	2.94
	Full time, less than 55 years old, ABC1 social grade, Children Profile: 12 to 16 years, uses Facebook	95	3.14
	Full time, less than 55 years old, ABC1 social grade, Children Profile: 12 to 16 years, uses Twitter	54	1.79
	Full time, less than 55 years old, ABC1 social grade, Children Profile: 12 to 16 years, uses Instagram	37	1.22
	Full time, less than 55 years old, ABC1 social grade, Children Profile: 12 to 16 years, uses WhatsApp	97	3.21
	Full time, less than 55 years old, ABC1 social grade, uses Facebook & Twitter & Pinterest & Instagram & WhatsApp	62	2.05
	Full time, less than 55 years old, ABC1 social grade, uses Facebook	741	24.50
	Full time, less than 55 years old, ABC1 social grade, uses Twitter	480	15.87
	Full time, less than 55 years old, ABC1 social grade, uses Pinterest	142	4.70
	Full time, less than 55 years old, ABC1 social grade, uses Instagram	445	14.72
Full time, less than 55 years old, ABC1 social grade, uses WhatsApp	827	27.35	
Modify my home to be more resilient to heat and drought (e.g. drought resilient plants, install window shades)	Full time, ABC1 social grade, not Widowed, WhatsApp	941	31.12
	Full time, ABC1 social grade, not Widowed, WhatsApp, less than 55 years old, number of children different of 2, Children Profile: 12 to 16 years	48	1.59
Modify my home to be more resilient to storms and flooding (e.g. property level protection)	Full time, ABC1 social grade	1153	38.13
	Full time, ABC1 social grade, not Widowed, less than 55 years old, uses Instagram	444	14.68
	Full time, ABC1 social grade, not Widowed, less than 55 years old, uses Facebook_Messenger	649	21.46

Who is best to target for each action – combined demographic target groups 2/3

Action	Profile	Count (# of observ.)	Proportion (%)
Reduce dairy consumption	Female, less than 55 years old, not full time employed, uses Skype	47	1.55
	Female, less than 55 years old, not full time employed, uses Skype, ABC1 social grade, not more than 2 children (i.e. less than 2 children)	36	1.19
Buy locally produced food	Female, over 35 years old, not Widowed, uses Twitter and Instagram	331	10.95
	Female, over 35 years old, not Widowed, uses Twitter	503	16.63
	Female, over 35 years old, not Widowed, uses Instagram	607	20.07
	Female, over 35 years old, not Widowed, uses Twitter and Instagram, ABC1 social grade, not more than 2 children (i.e. less than 2 children)	248	8.20
	Female, over 35 years old, not Widowed, uses Twitter, ABC1 social grade, not more than 2 children (i.e. less than 2 children)	379	12.53
	Female, over 35 years old, not Widowed, uses Instagram, ABC1 social grade, not more than 2 children (i.e. less than 2 children)	446	14.75
	Female, over 35 years old, not Widowed, uses Instagram, ABC1 social grade, not more than 2 children (i.e. less than 2 children), Children Profile: 4 years and under	40	1.32
	Female, over 35 years old, not Widowed, uses Twitter, ABC1 social grade, not more than 2 children (i.e. less than 2 children), Children Profile: 5 to 11 years	39	1.29
	Female, over 35 years old, not Widowed, uses Instagram, ABC1 social grade, not more than 2 children (i.e. less than 2 children), Children Profile: 5 to 11 years	40	1.32
		Female, not 25-34 years old (i.e from any other age group), not Never Married (i.e. with any other marital status)	1064
Reduce food waste	Female, not 25-34 years old (i.e from any other age group), not Never Married (i.e. with any other marital status), not full time employed, less or more than one child (i.e. not one child), uses Facebook	482	15.94
	Female, not 25-34 years old (i.e from any other age group), not Never Married (i.e. with any other marital status), not full time employed, less or more than one child (i.e. not one child), uses WhatsApp	426	14.09
	Female, not 25-34 years old (i.e from any other age group), not Never Married (i.e. with any other marital status), not full time employed, less or more than one child (i.e. not one child), uses Facebook, Children Profile: 5 to 11 years	45	1.49
	Female, not 25-34 years old (i.e from any other age group), not Never Married (i.e. with any other marital status), not full time employed, less or more than one child (i.e. not one child), uses Facebook, Children Profile: 12 to 16 years	37	1.22
	Female, not 25-34 years old (i.e from any other age group), not Never Married (i.e. with any other marital status), not full time employed, less or more than one child (i.e. not one child), uses WhatsApp, Children Profile: 5 to 11 years	52	1.72
	Female, not 25-34 years old (i.e from any other age group), not Never Married (i.e. with any other marital status), not full time employed, less or more than one child (i.e. not one child), uses WhatsApp, Children Profile: 12 to 16 years	45	1.49
		Female, not 25-34 years old (i.e from any other age group), not Never Married (i.e. with any other marital status), uses Pinterest	194
Make ethical food choices (e.g. buy Fairtrade, don't buy palm oil etc.)	Female, not 25-34 years old (i.e from any other age group), not Never Married (i.e. with any other marital status), uses Pinterest, ABC1 social grade, not Part time employed, at least one child (i.e. one child or more)	38	1.26
Use reusable alternatives wherever possible (e.g. shopping bags, containers etc.)	Inactive, female, not 25-34 years old (i.e from any other age group), not Never Married (i.e. with any other marital status)	481	15.91
Correctly recycle materials	Female, not full time employed, not 25-34 years old (i.e from any other age group), not Separated/ Divorced, uses Twitter	230	7.61
Reduce use of plastics	Female, ABC1 social grade, not 25-34 years old (i.e from any other age group), not Separated/ Divorced, uses Instagram	389	12.86
	Female, ABC1 social grade, not 25-34 years old (i.e from any other age group), not Separated/ Divorced, uses Instagram, not unemployed, less than 3 children, Children Profile: 5 to 11 years	32	1.06
	Female, ABC1 social grade, not 25-34 years old (i.e from any other age group), not Separated/ Divorced, uses Instagram, not unemployed, less than 3 children, Children Profile: 12 to 16 years	34	1.12
	Female, ABC1 social grade, not 25-34 years old (i.e from any other age group), not Separated/ Divorced, uses Instagram, not unemployed, less than 3 children, Children Profile: Over 18 years	128	4.23

Who is best to target for each action – combined demographic target groups 3/3

Action	Profile	Count (# of observ.)	Proportion (%)
Use less water (e.g. turn the tap off when brushing your teeth)	Unemployed, female, 45-54 years old, uses WhatsApp	4	0.13
	Female, 45-54 years old, uses WhatsApp	206	6.81
	Female, 55+ years old, uses WhatsApp	382	12.63
Choose energy efficient appliances when purchasing or replacing (e.g. with an A-rated energy label)	Female, 45-54 years old, uses WhatsApp, every other marital status except of "Never Married", one child	40	1.32
	Female, 45-54 years old, uses WhatsApp, every other marital status except of "Never Married", two children	40	1.32
	Female, not part time employed, over 25 years old, not Widowed, 2 children or less, uses Facebook_Messenger	683	22.59
Reduce car/taxi use by using active forms of transport (e.g. walking, cycling instead of a vehicle)	Female, not part time employed, over 25 years old, not Widowed, 2 children or less, uses Facebook_Messenger, Children Profile: 5 to 11 years	69	2.28
	Female, not part time employed, over 25 years old, not Widowed, 2 children or less, uses Facebook_Messenger, Children Profile: 12 to 16 years	66	2.18
Reduce car/taxi use by using public transport	Less than 55 years old, living as married	333	11.01
	Not 25-34 years old, not full time employed, uses LinkedIn and Skype	52	1.72
Avoid short haul flights by taking the train instead	Not 25-34 years old, not full time employed, uses LinkedIn	208	6.88
	Not 25-34 years old, not full time employed, uses Skype	160	5.29
Avoid long haul flights by choosing not to travel internationally	18-24 years old, uses Pinterest	44	1.46
	18-24 years old, uses Skype	41	1.36
	Female, not 25-34 years old, more or less than 2 children (i.e. not 2 children), Children Profile: 18 years and under	169	5.59
Avoid flights by working from home/conference/video calls	Female, not 25-34 years old, more or less than 2 children (i.e. not 2 children)	1170	38.69
	Female, not 25-34 years old, more or less than 2 children (i.e. not 2 children), Children Profile: 18 years and under, not full time employed, not Never Married, uses Twitter	32	1.06
	Female, not 25-34 years old, more or less than 2 children (i.e. not 2 children), not full time employed, not Never Married, uses Twitter	157	5.19
Avoid local travel by working from home/conference/video calls	Female, not 25-34 years old, more or less than 2 children (i.e. not 2 children), not full time employed, not Never Married, uses Twitter	102	3.37
	Not 25-34 years old, uses Skype	371	12.27
Reduce meat consumption	Not 25-34 years old, uses Skype, female, not Widowed, less than 3 children, Children Profile: 5 to 11 years, Children Profile: 17 to 18 years and/or Children Profile: 18 years and under, and/or Children Profile: Over 18 years	126	4.17
	No identified groups		
	Female, less than 55 years old, not Widowed, ABC1 social grade, uses Pinterest and WhatsApp and Skype	39	1.29
	Female, less than 55 years old, not Widowed, ABC1 social grade, uses Pinterest	171	5.65
	Female, less than 55 years old, not Widowed, ABC1 social grade, uses WhatsApp	579	19.15
	Female, less than 55 years old, not Widowed, ABC1 social grade, uses Skype	126	4.17
	Female, less than 55 years old, not Widowed, ABC1 social grade, uses Pinterest, not inactive, not more than 2 children (i.e. less than 2 children), Children Profile: 18 years and under	47	1.55
Female, less than 55 years old, not Widowed, ABC1 social grade, uses WhatsApp, not inactive, not more than 2 children (i.e. less than 2 children), Children Profile: 18 years and under	155	5.13	
Female, less than 55 years old, not Widowed, ABC1 social grade, uses Skype, not inactive, not more than 2 children (i.e. less than 2 children), Children Profile: 18 years and under	31	1.03	

Qualitative focus group findings

Focus group – Methodology

What and when:

- Four focus groups were held across Hampshire
 - Gosport – 24th February
 - Romsey - 25th February
 - Basingstoke – 26th February
 - Petersfield – 3rd March
- The sample was representative of the South East (including Hertfordshire) for age (range 18-72, average age 42), gender (14 female, 12 male) and social economic status (range of social segments)
- Individuals were selected with a broad range of concerns to match national trends (e.g. EU/Brexit, health, immigration). Individuals were not aware that the focus group was centered on discussing climate actions
- The sessions were held in the evening and lasted 1.5 hours
- A total of 26 Hampshire residents took part – 5-7 people per group
- Original materials used during the group are available on request

Topics covered:

- Individuals values, lifestyles and motivations
- What low carbon actions individuals are already taking and what they are not
- Key barriers and motivations at different stages of change for different actions
- Effective messages to reduce individuals carbon emissions

Willingness to change exists but must overcome practical and psychological barriers

People are willing to change and know it is the right thing to do

But they must overcome a number of internal and external barriers

Limits to taking actions

**Other motivations
overriding climate change**

**National and local
government support**

**Lack of knowledge /
wrong information**

Approaches to addressing climate change through citizen action must understand and work past these barriers

People are willing to change....

Individuals demonstrated a broad range of motivations to engage in low carbon activities:

Health

"I spoke to someone who only eats meat at the weekend – they felt healthier, less tired and if that also helps the environment then it can't be a bad thing"

Finance

"At uni found cheese expensive so cut it out"

Ease

"I use all public transport and live somewhere where everything is convenient shopping, exercise, work"

Right thing to do

"At Christmas just two of us, and still wanted free range turkey but it was expensive so did a vegan loaf rather than a cheaper bird. Luckily, other half doesn't mind."

Environment

"I really like meat but after chatting to my nephew who works in the environmental sector, he said if everyone had a day without meat it would cause a reduction in CO² so I'm having one day a week at least not eating meat"

Social norms

"In certain shops it's the fashion to take your own container. It's becoming the cool thing to do, rather than weird"

Good habits

"So when I was growing up my Mum had a water meter installed and she got really funny with us about how much water we used, so I have trained myself to shower in that way [turn it off when putting shampoo on] and it's always stuck"

Legislation

"It baffled me when I first got there [South Korea] but there is not option you have to do it [correctly recycle]. Where you take the rubbish out they have cameras, and if you are the person to do it wrong, you get fined."

Individuals had high engagement with visible environmental impact behaviours, with an easy to do alternative ...

Most individuals actively recycled, used reusable alternatives and reduce use of plastics

"I always try to use Tupperware or a reusable water bottle but if out will buy food or bottle"

... and for some individuals this was enough to overcome challenges

"[Supermarkets aren't doing enough to reduce plastic] so that's why we vote with our feet and change if we feel they aren't"

... but actions are limited by other motivations....

Other motivations override low carbon motivations:

Health

"Growing up having milk and cheese is healthy, good for your bones. Never made a conscious effort not to have dairy. I don't have a lot anyway. Hear about osteoporosis so I make sure my kids have cereal"

"Air pollution is the biggest problem for cycling in Southampton – you're going to take years off your life"

Safety

"You need to have a death wish to cycle on the road. Drivers don't care and cycle lanes disappear they lead up to a roundabout then you are dumped into trouble"

Finance

"At the end of the day, yes they are interested in things being renewable and more energy efficient but if its going to cost them more money they will choose the cheaper option most of time and I know I would"

Ease

"I live 20 minutes from the town centre and I would still drive because its more convenient. You don't have to rush, time to be anywhere else carry things back, what shoes I'm wearing. Purely just convenience more than anything"

Established habits

"There are a million and one options to have meat free meals, but you go to your favorites, on a Sunday you have a roast. For me it's my comfort zone "

Social norms

"Happy to take the vegan option at lunch but would not consider at home as my husband will only have meat"

...and further limited by visibility of the issue and a desire to let ourselves 'off the hook'...

Most people have concerns for the environment and want to do the right thing. People explain away behaviours that do not fit with this attitude

People justify a self-serving conclusion e.g. motivated reasoning

My actions won't make a difference: *"Grandparents say why not fly less but I always say the plane is going anyway so I might as well be on it."*

Someone else can change: *"It's alright for Coldplay to say we aren't going on tour anymore until we can find an alternative"*

People use one good act to justify the bad i.e. moral licensing

Comparison between flying and recycling: *"Part of peoples' lives that they enjoy most is going on holiday. They would much rather recycle than reduce flying."*

Consequences of consumption are hard to see at point of use

"No one talks about saving water. I know every summer there is a water/ hose pipe ban, which makes me think oh okay we shouldn't be using the hose"

People underestimate effects of extreme weather

"Not something that would ever affect me [flooding]. There are so many things that we are thinking about on this sheet, plus what's going on in our lives. I'm not going to worry about something that's not going to affect me ... hopefully."

... and by a lack of knowledge...

People are overwhelmed by the amount of information out there and its lack of clarity

"Mine is an ignorance thing, I haven't gone out of my way to seek as much information as I probably should do about some of these issues. It's not been thrown at me and forced on me so I'm living in a bit of bubble, there's key words – renewable energy. But do I really know? Drilling it down exactly what it means, no not really, not on all these actions. It's overwhelming and I don't now where to start"

Feeling overwhelmed leads to lack of knowledge, in 3 main areas

1. Unsure how to complete actions

Simple messages such as 'use less water', 'waste less food' and 'use less plastic' may not be effective as people do not know how they can do this

"I would [save water] if I knew how ... other than taking more showers than baths"

"What is a water saving device, where would you find it?"

"I have a water butt and would be open to other water saving devices but there isn't much awareness of water saving devices"

2. Misinformed on actions

People don't know the carbon impacts of their actions ...

"Curious as to why I should decrease my meat because I disagree with it. It is unproven that it produces more carbon emissions"

... and the other impacts

"You wouldn't get enough protein and would have to take lots of supplements"

3. Confusion on what action to take

Environmental issues are not clear cut and citizens don't know what to do

How much glass do you have to have to make a car journey to the recycling center worthwhile? *"You've got a lot of bottles to make the journey worthwhile"*

Some people are interested in the issues and have tried to research but are still not clear

Are electric cars environmentally friendly? *"Mining the lithium – there is a lot of eco stuff that is never talked about"*

What type of milk should I drink – soy, almond, oat, dairy? *"You read that production of the soy can use as much energy if not more [than dairy milk], its really difficult to find alternatives that do the job environmentally"*

...and feeling national and local government should be helping us...

Locally governments should be investing in better public transport, active transport routes, flood preparations and recycling services. Here we will look at recycling services in detail:

Recycling services used as an example (reflective of the picture for all areas)

We would do more if more services were provided for us

"That's what Hampshire should be involved in, setting up bigger [recycling] places. We are prepared to drive now [to recycle], we would do it bigger scale, so would a lot of people."

There should be a standardised service across the UK

"One county does food, one doesn't then there's foil ... It really needs to start from the top ... If everyone sang from the same song sheet, we wouldn't be there scratching our head about a plastic container"

Cross-country comparisons make the UK look bad / uncaring

"I was working in South Korea and their system puts ours to absolute shame."

There is a role of local government in large-scale, national problems ...

"It has to start from the top, it's difficult for councils I know, but basically finding ways of forcing manufacturers to use recyclable stuff is a lot more important ultimately that what any individual can do"

... But national government should be taking forceful and directive action

"We are consumers at the end of the day, we do the best for ourselves but if the government set their plans and objectives. If we had an I have to box then we would have to and I would do it. Make certain things like renewable energy. Ban the use of gas. Don't give me the choice as a consumer cos you are always going to get people that won't"

...along with big businesses making it easier to do the right thing.

Big business should be helping me

They should be forcing me to make the right choice

"Why is the onus on consumers to make that choice [between energy efficient/non-efficient appliances]? Why don't the companies have that responsibility and automatically when you buy that"

They should be nudging me to make the right choice

"You have all these price comparison websites telling you the cheapest – they are not telling you the greenest"

Big businesses will drive technological innovation so I can continue my behaviour

"Eventually technology will have to catch up. People won't be able to drive round in cars that use lots of fuel"

Who are individuals willing to listen to and trust?

Individuals value communications from trusted and impartial organisations

Businesses

Lack of trust in big businesses...

Assumption that profit is more important than the environment
"The information just isn't there. It's left to big companies that make a profit out of it to tell us what to do. It isn't always in the best interest for us or the planet"

Businesses are associated with green washing *"Have suspicions when it says this is an ethical product and I'm going to charge you £2 more for it – is it really an ethical product. It has come to light in recent years that this has been used as a marketing tool"*

... but not all businesses

"You have Ecosia – the search engine that plants trees and another one for helping with plastic. There are a few companies that are putting their profit into helping"

Local government

Individuals value communications they receive from the council...

"I think those letters you [the Council] send out are really handy. There are usually big letters you send out which say: you can get a water butt half price. I think those letters are really informative when they come out"

"If its an official letter from Council or Southern Water I will actually read it. 'If you get this device, it will save this amount of money as well as the environmental impact'"

... and would like to receive more clear information

"I would certainly like to know more [about what the Hampshire County Council are doing]"

"We need better information, we need clarity [to know what is the right thing to do]"

Individuals are wary of incentives from Government

"What concerns me is that cars with low emissions are now taxed road tax – are they going to do the same thing with electric cars 5 years down the road?"

How to overcome barriers (1 – what people say)

Individuals spoke about ways that would help them to overcome barriers in relation to them conducting climate action. Ideas have been linked to the behaviour change element that the intervention is trying to change in the [COM-B model](#)

Nostalgia – back to the future

"Go backwards instead of forwards. You look at the 40's, 50's, 60's, paper bags, glass bottles, grow your own, there was all that stuff for the environment"

Resources are precious

"You know how it used to work in the old days you take it back and you get your money back, couple of pence for that."

Put value back into traditional forms of transport

"Our holidays to France involved the ferry and that used to be the highlight"

Food – buying organic and reducing food waste

"The people that come for the eggs, they go crazy for them because they can see the chickens running around ... they know the eggs came from that chicken"

"I think it's a bit of a generational thing, upbringing because I was always told don't get up from the table until you have finished all your food ... but when I look at my children now they are spoilt, if they don't want to eat something I can't force them and they do leave food"

Reflective motivation

Positive focus

Focus not on what we are losing by using low carbon alternatives but what we gain

"[I would be keen to try vegetarianism if I had] more exciting recipes I could try – I would be open for it"

Focus on achievable steps

"Encouragement, if you don't think you can live an eco life its okay to do as well as you can. It's okay not be to perfect. If you know most of the time you do your recycling and run it down to the shop its okay the times that you can't. It seems to be at the moment, if you aren't doing it all the time you are not getting there. It's okay to do what you can"

Reflective motivation

How to overcome barriers (2 – what people say)

Encourage reflective rather than automatic thinking

"At school they have stickers on the bins 'This bin takes paper, this bin takes ...'. If we had that at home as well it would help the kids"

"If I was rewarded, I would make more of a conscious effort to be environmentally friendly, think more about what I'm doing"

"The thing that is not very nice about it [food waste recycling in South Korea] is you have to handle your food waste a lot and keep it in your house for a week and the smell of it. But you become extremely conscious of the amount of food waste you produce. It made me finish my meals rather than throwing it away"

Reflective motivation

Don't make changes look radical

"I think it's labeled as an extreme thing to do [eating vegetarian] but some things are quite nice"

Reflective motivation

Use transitions

When young people go to university, they want to save money, promote low meat and dairy diets as a financial saving

When young people finish university, they are often used to not having a car, promote use of public/active transport into a job

Reflective motivation

Set an achievable goal

"When they tell you to reduce your meat consumption – [they should] tell you what to aim for because it's not that helpful to say reduce because what does that really mean. If you say reduce to 2 or 3 times a week, that's a benchmark you can work towards, otherwise it's quite a general instruction"

Reflective motivation

Promote community groups to talk about climate actions

"It's interesting hearing what everyone else says. You are so focused on your own life and what your parents tell you, what your friends do. Your freecycle thing [someone in the group gives unwanted items a home using a freecycle Facebook page] – I would never have thought of that – and you think actually that's not hard work for me to do"

Social opportunity

Tricking friends/ families into carbon savings

"Tell wife to stop buying ironing water as can just use filtered water. So filling bottle up with water so she doesn't notice"

Taking a group of "macho men" to a vegetarian Indian restaurant. *"They were very surprised afterwards that it doesn't have to be steak, you can have extremely nice food and not realise [it is vegetarian]"*

Social opportunity

How to overcome barriers (3 – what people say)

Short term trend vs. long term change

For young people behaviour needs to be cool ...

"From my daughter's perspective, teenagers are selfish unless something is cool and trendy. Then all of sudden if it's cool to have your own reusable straw in your bag or a funky water bottle, then they are completely brought into it. If not, it's not cool, it's geeky to know about these things"

... But for older people it needs to be viewed as a long-term change

"Sometimes I think it's all hipster stuff – opt-in, opt-out, one minute it's straws, then it's plastic, then it's veganism and a lot of it you stand still and watch it go by"

Social opportunity

Education

"If they took more time to educate people on all these issues, then you will probably have more converted people making a choice about something because they are informed."

Clear, engaging and simple messages are effective

"I watched an advert about how leaving switches on causes a fire – although it's stupid because you know it, when you see it and hear someone talking about it – it rewires you, I don't leave plugs on anymore"

Focus on young people

"Education needs to come a lot earlier, primary schools and secondary schools. If the next generations are coming up with this ethos behind them, then it will be easier to adapt to situations in the future. Us older lot are stuck in our ways a lot more and need a lot more education to understand."

Psychological capability

Finance and making action easier are the dominant ways to approach people to change

From our focus groups (26 participants) those who were willing to undertake an action were asked to place each action into a bucket with labels reflecting the best way to communicate this issue to them e.g. by addressing the health benefits, money or the environment

	Renewable energy – solar, heat pump	Water saving devices	Electric car	Ethical food	Adapt home for hot weather	Energy efficient appliances	Eat local	Reduce flying	Public transport – bus, train, car share	Adapt home for storms and flooding	Use less water	Reduce meat	Home insulation	Active transport e.g. walk, cycle	Video calling	Reduce dairy	Reduce plastics	Reduce food waste	Reuse materials
Easier	Easier	Easier	Easier	Easier	Easier	Easier	Easier	Easier	Easier	Easier	Easier	Health	Easier	Easier	Right thing	Health	Easier	Environment	Right thing
Environment	Easier	Easier	Easier	Easier	Easier	Easier	Easier	Environment	Easier	Easier	Environment	Health	Easier	Easier	Friends	Health	Easier		
Environment	Easier	Easier	Easier	Easier	Environment	Easier	Easier	Environment	Easier	Easier	Environment	Health	Easier	Easier	Friends	Health	Easier		
Environment	Easier	Easier	Easier	Easier	Environment	Environment	Easier	Finance	Easier	Environment	Environment	Health	Finance	Easier	n/a	Health	Right thing		
Finance	Easier	Easier	Finance	Environment	Finance	Environment	Environment	Finance	Easier	Finance	Finance	Health	Finance	Friends	n/a	Right thing			
Finance	Environment	Easier	Finance	Finance	Finance	Environment	Environment	Finance	Easier	Finance	Finance	Health	Finance	Health					
Finance	Environment	Easier	Finance	Finance	Finance	Environment	Environment	Finance	Easier	If owned own	Finance	Health	Right thing						
Finance	Environment	Environment	Finance	Finance	Finance	Finance	Finance	Finance	Finance	Right thing	Finance	Right thing							
Finance	Finance	Finance	Finance	Finance	Finance	Finance	Finance	Right thing	Health	Right thing									
Finance	Finance	Finance	Finance	Health	Finance	Finance	Finance	Right thing											
Finance	Finance	Finance	Finance	Health	Finance	Finance	Finance												
Finance	Finance	Finance	Finance	Health	Finance	Finance	Health												
Finance	Finance	Finance	Finance	Right thing	Health	Right thing													
Finance	Finance	Finance	Finance	Right thing	If owned own home														
Finance	Finance	Right thing	Finance																
Finance	If owned own	Right thing																	
Finance	Right thing	Right thing																	
Finance	Right thing																		
Right thing	Right thing																		
Right thing																			
Right thing																			

Key takeout – Environment is rarely the leading way to encourage behaviour change according to respondents. Finance is a stronger motivator in many cases

Overcoming barriers is about framing the challenge in the right way 1/2

An additive approach e.g. 'every little helps' could work for climate change

Addresses which barriers?

- People using one good act to justify a bad one
- People don't know the carbon impacts of their actions
- They should be nudging me to make the right choice
- Focus on achievable steps

Encourage reflection through point of action communications

Addresses which barriers?

- Environmental issues are not clear cut and citizens don't know what to do
- Some people are interested in the issues and have tried to research but are still not clear
- Consequences of consumption are hard to see at point of use
- They should be nudging me to make the right choice

Show consistent, visible leadership

Addresses which barriers?

- Someone else can change
- Governments should be investing

Where has this principle been used?




Fundraising Thermometer

GOAL

MILESTONE 3 (75%)

MILESTONE 2 (50%)

MILESTONE 1 (25%)

Target: \$55,000
Achieved: \$27,500




Where has this principle been used?



Energy Efficiency Rating	Current	Potential
Very energy efficient - lower running costs		
(92-100) A		
(81-91) B		
(69-80) C		
(55-68) D		
(39-54) E		
(21-38) F		
(1-20) G		
Not energy efficient - higher running costs		
England, Scotland & Wales		

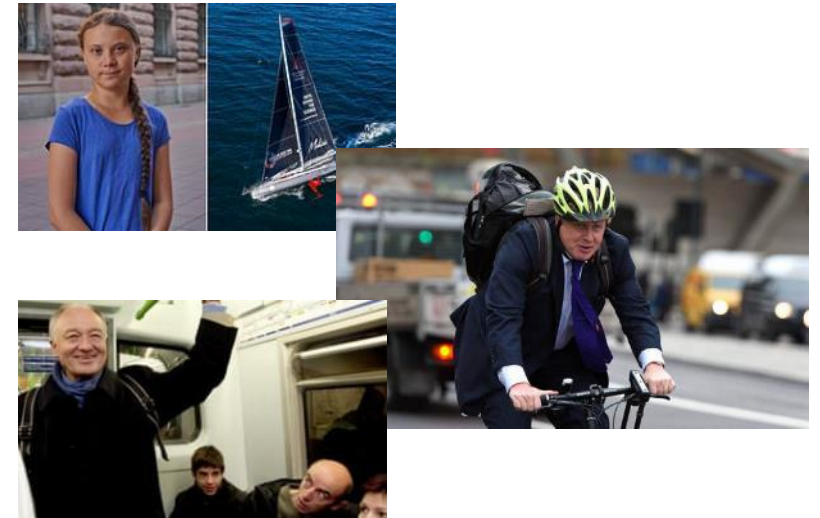
EU Directive 2002/91/EC

Fixed rate contract 12 Months

clusive Early exit fee £30.00 per fuel

- Comparison site exclusive
- Green plan

Where has this principle been used?



Overcoming barriers is about framing the challenge in the right way 2/2

Make doing the right thing more visible – its not easy to see the people who didn't drive/fly

Addresses which barriers?

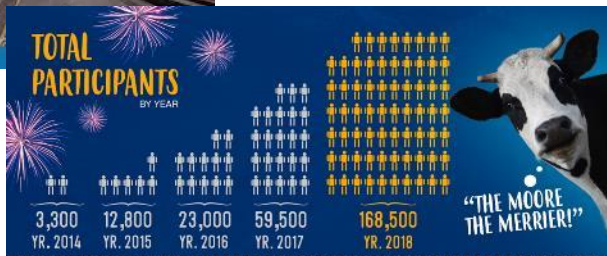
- People justify a self-serving conclusion
- They should be nudging me to make the right choice
- Focus not on what we are losing by using low carbon alternatives but what we gain
- Focus on achievable steps

Where has this principle been used?

Flight shame/Train pride campaign in Sweden



Showing how many people participate



Make it clear how much each action contributes

Addresses which barriers?

- People justify a self-serving conclusion
- Consequences of consumption are hard to see at point of use
- They should be nudging me to make the right choice
- Environmental issues are not clear cut and citizens don't know what to do

Where has this principle been used?

Item	Points
Chicken Bowl	12
Chicken/Vegete Bowl	10
Beef Bowl	12
Beef/Vegete Bowl	10
Beef/Flour Bowl	12
Waffle Bowl	12
White Meat Chicken Plate	10
Chicken Plate	10
Chicken/Vegete Plate	8
Beef Plate	12
Beef/Vegete Plate	10
Beef/Flour Plate	11
Waffle Plate	10
Mini Chicken Bowl	7
Mini Beef Bowl	7
Mini Meat Plate	7
Mini Plate	7
Chicken Plate	17
Beef Plate	17
Chicken/Beef Plate	17
Ris Plate	14
Waffle Plate	16

Points system showing how one action contributes to a target or limit



Create clear shared goals – people will change a lot if they agree

Addresses which barriers?

- Environmental issues are not clear cut and citizens don't know what to do
- An ability to discuss, agree goals and commit to change could lead to more behaviour change

Where has this principle been used?



Juries – people aim to seriously assess evidence and come to a conclusion with high stakes for the people involved

For more information contact insight@hants.gov.uk
