

# Bridging the gap between climate concern and climate action

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## Executive summary

### 1.1 Aims

Research shows the majority of people agree that climate action is urgent and important, but few are taking the action required to meaningfully reduce their emissions (Scottish Government, 2025). ClimateXChange, on behalf of the Scottish Government, commissioned this research to better understand how communications and marketing can either support or hinder the translation of climate concern into climate action.

The research examined three target behaviours: installing a heat pump, switching to an electric vehicle (EV), and using public transport more instead of driving. This research focused on citizens who are concerned about climate change, but had not engaged in one of these three target behaviours. In order to focus on the motivational and behavioural impact of communications, participants were recruited on the basis that they reported no major economic or practical barriers to engaging with the target behaviour.

The aim was to explore how target audiences respond to different types of communication and messages prompting people to take 'warm-up' behaviours. Warm up behaviours are the first steps toward larger changes in how they heat their homes and travel.

Findings will be used to inform the Scottish Government's climate communication plans, policy levers to drive behavioural change, and public engagement on climate change more broadly.

### 1.2 Key Findings

#### **Moments of change drive action, not communications alone**

Across all three behaviour sets, changes in personal circumstances – such as the need to replace a gas boiler or buy a new car – as well as external factors – such as a change in

public transport policy – are the primary drivers of action. Communications alone are insufficient to bridge the gap between intention and meaningful contemplation or warm-up actions. The strategic role of communications should be to prime the audience to consider the overarching behaviour ahead of the next crucial moment. They can build positive attitudes and beliefs that support these behaviours as sensible, practical, and financially viable.

### **Social norms are critical for heat pumps and electric vehicles**

For both EVs and heat pumps, shifting the audience's perception from seeing these as potential future norms to viewing them as part of the current norm is essential. Communications should focus on driving social norms and positioning these behaviours as desirable, everyday options being chosen by people across different segments of society. Using 'real people' as messengers, featuring heat pumps and EVs in everyday domestic settings, and highlighting increasing popularity proved most effective. For EVs, this includes avoiding luxury framing.

### **Financial and practical concerns outweigh climate benefits**

Although the sample participants reported a desire to do more for the climate, taking action to reduce carbon emissions was not a strong motivator of warm-up behaviours. Participants were aware that gas and oil heating and driving internal combustion engine (ICE) vehicles were significant sources of emissions, but practical and financial considerations, along with social norms, were much more effective in prompting consideration. Communicating about climate benefits works best when mentioned as co-benefits alongside more practical arguments. For EVs, avoiding overly moral climate messaging is important.

### **Heat pumps require education and myth-busting**

Low baseline awareness and knowledge among many participants highlighted the need for communications to educate the public about heat pumps. Key messages should focus on:

- Financial benefits including government grants and running cost savings such as exclusive energy tariffs for heat pump customers
- Installers offering to handle retrofitting work and grant applications, reducing non-financial costs

Credibility of messenger is critical due to high levels of cynicism around government grants and the energy sector. Consistent messaging across government sources, trusted brands, consumer advice brands, and industry voices is essential. Adopting a factual, confident tone is most effective and communications should avoid futuristic framing or qualifying statements like 'up to'.

### **Electric vehicles need range and infrastructure messaging**

Myth-busting and prompting re-consideration of current attitudes is important for building interest in EVs. Many participants held outdated views. Key message themes to highlight included:

- Improved range of current-generation EVs compared with earlier models
- Increased availability of EV charging infrastructure across Scotland

- Reduced up-front costs of some newer EV models
- Lower running and maintenance costs versus ICE vehicles

Authentic, everyday framing using real customers as spokespeople and Scottish examples proved particularly effective. Providing interactive tools such as route planners and charging maps helps people visualise EV ownership.

### **Public transport requires challenging entrenched attitudes**

For driving less and using public transport more, attitudes were more entrenched. Participants viewed driving as the norm and usually drove as a default action. Coordination between public transport operators and government will amplify positive stories. Communications should focus on:

- Taking advantage of policy, service or infrastructure improvements to challenge negative beliefs
- For more entrenched car users who seldom used public transport, promoting one-off leisure journeys as a more achievable ask than changing commuting habits
- Using influencers and social media to present relatable, human examples and highlight benefits
- Adopt a straightforward, factual tone; avoid over-confidence or idealised depictions

### **Who is this relevant for?**

The actionable insights contained in this report are relevant for the Scottish Government's climate communications teams, policy makers developing behaviour change strategies, public engagement professionals, and partner organisations including energy providers, transport operators, consumer advice bodies, and local authorities involved in delivering Scotland's net zero ambitions.

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# 1 Introduction and approach

## 1.1 Introduction

Quantitative survey data demonstrates an intention-action gap among the public. The majority of people agree that climate action is urgent and important, but few are taking the action required to meaningfully reduce their emissions (Scottish Climate Survey 2024). Understanding what can drive people's transition from latent climate concern to climate action is important for informing Scottish Government climate communications and public engagement.

There is a significant evidence base on the barriers and motivators to taking climate action. However, there is a lack of in-depth research on the role of communications and marketing in influencing people to act on their latent climate concern. In particular, there is a need for actionable insight around the role of communications in relation to "moments of change" where motivation and opportunity to act are higher than usual.

ClimateXChange, on behalf of the Scottish Government, commissioned this research to better understand how communications and marketing can either support or hinder the translation of climate concern into climate action. In this context, action refers to the immediate steps, or warm-up behaviours, someone might take after seeing a climate campaign - for example, visiting a campaign website, researching renewable heating systems, or booking a test drive for an electric vehicle. The research focused on citizens who are concerned about climate change and face no major socio-economic barriers to taking meaningful action yet are not currently doing so. These warm-up behaviours were grouped according to three overarching target behaviours - installing a heat pump, switching to an EV, and using public transport more instead of driving.

The aim was to explore how target audiences respond to different types of climate communication and message framing that prompt people to take warm-up behaviours that can serve as the first steps toward larger changes in how they heat their homes and travel. Framing refers to how a particular message is presented in order to influence how it is perceived by the audience, such as by choosing which additional information is included or omitted, or by presenting the message within a narrative.

Findings from this research will be used to inform the Scottish Government's climate communication plans, policy levers to drive behavioural change to reach mitigation and adaptation goals, and public engagement on climate change more broadly.

## 1.2 Approach

Our research was split into four sequential phases:

1. A review of existing literature and evidence to identify:
  - Key barriers and motivating factors related to the overarching behaviours identified.
  - Behavioural theories that help us to explain inaction on climate change and how these can be used to prompt change

- The effect of different communications, i.e. what works and doesn't work to motivate overarching behaviours which reduce emissions, looking at message framing and content

The findings were used to develop and refine a set of hypotheses – see Appendix A - about the potential effects of a range of message themes associated with the core behavioural areas of focus. These hypotheses were then tested with research participants.

2. Six online focus groups were held with 30 participants who: agreed that it is important to take climate action; are willing to take more action than they currently do; and stated that money or other practical barriers do not prevent them from taking more action.
3. A two-part homework task where the research participants from phase 2 were asked to:
  - a. Reflect and think about what they'd seen and discussed in the focus groups and consider how that made them feel and think about the overarching and associated warm-up behaviours
  - b. Then, a week after the first task, consider taking a warm-up action(s) - recording their experience and thoughts on what they might/would do as a result of their chosen warm-up action, and add their thoughts on a variety of communication examples.
4. In depth interviews with each of the research participants to probe in detail their reflections on the whole research process – on what works and what does not work by way of climate communications and other relevant marketing-related interventions in connection with each overarching behaviour and associated warm-up actions.

For full details of the methodology please see Appendix B.

Throughout the research process we used behavioural theory to help us reflect on and analyse our findings. We used the:

- Stages of change model (Prochaska & DiClemente, 1983) to help us think about where participants were on their journey to adopt a behaviour / undertake a warm-up action. The stages in the model are pre-contemplation (not ready to change), contemplation (considering change), preparation (planning to change), action (making changes), maintenance (sustaining change), and termination (no longer tempted).
- Theory of Planned Behaviour (Ajzen, I., 1991) to understand how different potential communications and messaging would affect participant attitudes, subjective norms and perceived behavioural norms and therefore their intention / likelihood to adopt a behaviour / undertake a warm-up action.

See Appendix D for detail on both theories.

This report sets out the findings from the primary research, informed by learnings from the literature review. Fieldwork was conducted between July and November 2025. The main research findings are presented for each set of behaviours separately – that lead to installing a heat pump, switching to an EV and using public transport more instead of driving.

## 2 Behaviour set 1: Heat pumps

### 2.1 Context

#### 2.1.1 Product/offer

For participants, the decision to replace a heating system is generally driven by necessity rather than aspiration, with typical moments of change being the end of the current system's lifespan, moving home to a property with an older system installed, or renovating a current property. The infrequency of deciding on a new heating system often meant that participants' attitudes were formed based on information gathered some years ago. Typically, they had little motivation to research the topic until they approached a moment of change. In this context, a moment of change refers to an instance where a combination of external and internal factors align, making a person more receptive to marketing and communications on a particular topic. This in turn meant that some participants had last looked at home heating in-depth at a time when heat pumps were far less widely available.

Choosing a heating system is a high-involvement decision. Participants were keenly aware of the potential negative consequences of making a poor choice to replace their current system, such as higher day-to-day running costs, or greater need for maintenance and the associated cost of this. This meant that a period of information gathering and comparison was the norm in the lead-up to the final choice of heating system. In the context of looking to change behavioural norms around heat pumps, this provides a useful opportunity - if heat pumps were established as a credible option, many participants would be motivated to include them in this information search.

Viewed as a product, heat pumps were considered costly in purely financial terms, particularly in comparison to equivalent gas/oil systems. In addition, heat pumps were associated with non-financial costs which are not required for replacing a gas boiler. These were typically linked to the additional work needed to retrofit a home to a standard suitable for a heat pump. Participants who were aware of the need to retrofit tended to anticipate having to plan and research multiple tradespeople, along with general disruption to the home as a result of plumbing, heating and insulation work.

#### 2.1.2 Market considerations

At present, the market for heat pumps in Scotland is at a relatively early stage. Larger brands in the energy/home heating sector (e.g. Octopus, OVO) are beginning to focus more on heat pumps in their commercial and marketing strategies. Heat pumps themselves were still considered to be a relatively niche choice, even by participants who had greater background knowledge around them.

Consumer trust in the market was an important factor, and the choice of messenger had a pronounced impact on how communications were received. Due to the recent energy pricing increases across Scotland and the wider UK, participants indicated mistrust towards the utility sector, but certain trusted brands could be an exception to this view. Similarly, some participants were wary of messaging around grants and incentives for heat pumps due

to high-profile scams linked to cavity wall insulation, double glazing or solar panels which were reported widely in national UK media, for example on BBC Morning Live (2025)<sup>1</sup>.

### 2.1.3 Social norms

With low levels of awareness and background knowledge among most of the participants, there was not a strong sense of social norm or “norm in waiting” around heat pumps. Gas boilers are a very well-established heating norm. Participants with greater knowledge tended to view heat pumps as a niche product which may suit people with sufficient financial means and a specific type of home. Meanwhile, those with lower knowledge were most likely to default to gas boilers without actively researching heat pumps if triggered to look into a new heating system.

## 2.2 Moments of change: where the audience was most receptive to intervention

Participants highlighted several opportunities or changes of circumstance which played an important role in prompting contemplation and action. These moments were capable of shifting participants from a pre-contemplation state where a new heating system was not being considered at all, through to contemplation and ultimately preparation.

Moments of change broadly fit into two categories: moments arising from personal changes in circumstance, and those associated with wider external factors affecting the home energy or heating markets in Scotland.

### 2.2.1 Knowledge/awareness

Across the sample, levels of self-reported understanding and knowledge of heat pumps tended to be low. Participants who had some awareness tended to lack more specific knowledge around how heat pumps worked or the benefits of having one over a gas/oil system. Participants who reported greater background knowledge on heat pumps were often people who had looked into a heating system more recently. Those with the lowest reported knowledge of heat pumps had often been using the same gas-powered heating setup for longer periods of time without seeing a need to change.

A contributing factor to this low level of background knowledge was a perceived lack of visibility and interest in both the product category in general, and heat pumps as a specific product. Few participants expected to be frequently having organic discussions about heating systems with peers, outwith the preparation/information gathering phase of making a purchase decision. Some participants were unsure whether they had seen a heat pump before, as they lacked sufficient familiarity to identify a heat pump outside a building.

“I think just lack of knowledge, like I didn't even know it [Heat Pumps] was out there to... I just thought you got a boiler and that was it. Do you know

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<sup>1</sup> This source was not specifically referred to by participants. It has been selected as an illustrative example of the type of media coverage which was discussed by focus group participants.

what mean? I didn't really think much into it until this research. So [now], it's kind of on my radar a little bit more than it was before.” (F, 30-39, C1)

### 2.2.2 Behaviour change starting point for heat pumps

Taking the contextual information into account, most participants were at the pre-contemplation stage of the stages of change model, and had not seriously considered a heat pump. A few had reached a moment of change more recently having moved towards contemplation but ruled themselves out of further action.

At the outset of the project, pre-contemplation participants tended to feel that if they had reached a moment of change such as a boiler breakdown, they would most likely to go through the steps of researching and choosing a new gas heating system. They would not consider heat pumps as an option. This has implications for any potential communications strategy, as education and building familiarity are likely to be an important first step in driving greater uptake.

Within the pre-contemplation audience, the overall lack of knowledge around how heat pumps work meant that many had not yet formed attitudes and beliefs about their effectiveness beyond very top-level information. This means that there is an opportunity to shape attitudes towards heat pumps while also building familiarity and knowledge.

Key milestones and opportunities at a national or market level, such as more widespread adoption of heat pumps, can play a role in establishing heat pumps as an option to be considered. Participants felt that as consumers become more aware of increased heat pump uptake in their local area, this could potentially turn pre-contemplation into contemplation. Personal moments of change tended to create a greater sense of urgency than changes at a national or market level, and therefore had greater potential to motivate warm-up action, moving people from contemplation to preparation in the Stages of Change model.

### 2.2.3 Personal moments of change

Given the expense and upheaval of replacing heating systems, these personal moments of change tended to occur either at the end of an existing heating system's lifespan, or at moments where the friction and upheaval of a large home improvement would be lessened. Examples from participants included:

- Breakdown of the currently used heating system, which necessitates a replacement.
- Buying a new home (particularly one with a heating system nearing the end of its lifespan or warranty) was seen as an opportune moment to upgrade a heating system, as a period of upheaval and redecorating is expected and can be planned around fitting a new system.
- Deciding to renovate or significantly modify a property was also seen as a good time to consider heating upgrades and other disruptive work.

A secondary personal crucial moment, which was less likely to inspire warm-up behaviours but had a social norming effect, was seeing friends, family or neighbours getting a heat

pump installed. Seeing peers modelling the overarching behaviour and potentially hearing positive word-of-mouth was mentioned by some participants, who felt this would make them more likely to consider a heat pump alongside the more familiar heating options.

#### **2.2.4 External/market moments of change**

Cost was one of the most important factors participants considered when making a decision to purchase a new heating system. The upfront cost of the system and associated work to install it were often compared with any potential running cost savings over the lifespan of the system. Participants tended to be keen to explore any potential cost savings. This means that any changes to government policy, utilities pricing or the pricing of heat pumps themselves would present communications opportunities to establish heat pumps as a cost-effective option:

- Any improvements or changes to government financial incentives/grants (e.g. broader eligibility criteria, increased grant amount)
- Any reduction in up-front heat pump costs (e.g. due to market competition)
- Any changes to energy pricing which favour electricity over gas

Another set of potential future communications opportunities emerged around milestones in uptake. Publicising the increasing popularity of heat pumps in Scotland or at a more local or regional level had the potential to build a credible social norm around heat pumps, as well as countering concerns about their ability to handle colder weather. Milestones of uptake around the associated financial incentives could offer similar opportunities to present heat pumps as a popular choice, as well as creating interest for consumers wishing to avoid missing out on incentives.

Lastly, with some participants holding the view that heat pumps were a new technology which was still developing, any improvements to heat pump technology which challenge some of the negative attitudes and beliefs around them could help establish them as an option worth considering. Examples of this type of improvement in the discussions included heat pump units becoming smaller, becoming easier to install or retrofit, or becoming even more energy efficient.

#### **2.2.5 Associated warm-up behaviours**

In the research discussions and homework tasks, participants identified a range of warm-up behaviours which they associated with researching/deciding on a new heating system. This insight gives an indication of the target behaviours which could be modelled or encouraged in communications to encourage heat pump uptake alongside the primary call to action of switching away from gas or oil heating:

- Information searching online via search engines, or increasingly via AI/Large Language Model assistants
- Reading consumer advice articles or product reviews to help weigh up pros and cons
- Reading news articles linked to energy prices or heating systems
- Speaking to friends and family, especially those with a heat pump
- Seeking advice from tradespeople
- Engaging with other online content, such as short-form social media videos, was also mentioned by some

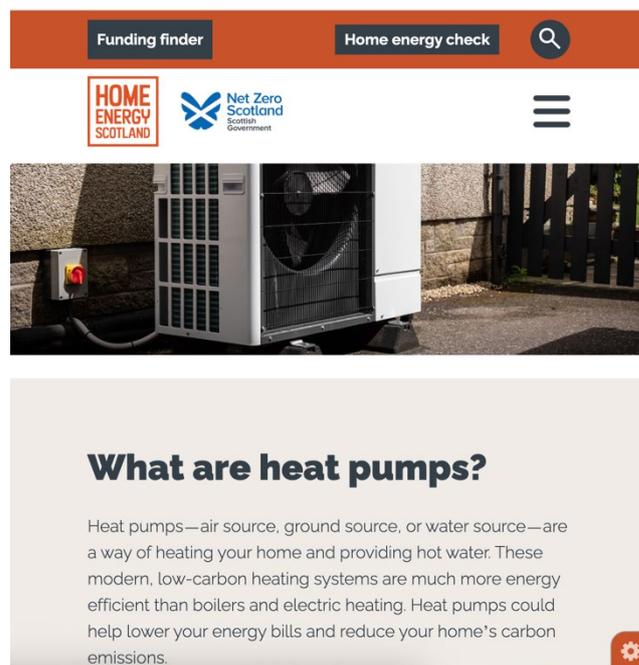


Figure 1: Home Energy Scotland educational web content (participant submission)

## 2.3 Message themes which had the potential to move participants towards action

The following themes were most likely to prompt participants to consider or engage in warm-up behaviours. With most participants' starting point being pre-contemplation, the most effective messages tended to be ones which focused on building awareness of key benefits or incentives, and/or contributed to establishing heat pumps as part of the norm for home heating. We have used the Theory of Planned Behaviour (Ajzen, I., 1991) to underpin analysis and identify messages which could build intention to act through subjective norms, attitudes and perceived behavioural control.

### 2.3.1 Presenting heat pumps as an increasingly popular choice

This emerged as a key messaging theme which could underpin a successful communications strategy on heat pumps. The lack of a strong subjective norm around heat pumps presented a barrier for most participants. Findings indicated that shifting the public's perception of heat pumps from a relatively niche solution to an option which is already popular across Scotland would be essential if greater uptake is to be achieved.

This core communications proposition was relevant at both the pre-contemplation and contemplation stages. Perceiving heat pumps as an increasingly popular choice among "people like me" made pre-contemplation participants want to learn more. Contemplation

stage participants who saw heat pumps as one of the default choices tended to be motivated to seek information in more depth, comparing the benefits of heat pumps to gas or other alternatives.

Often, participants' views on the positives of gas central heating systems were strengthened by the perception that they are effective in providing the desired level of warmth in the majority of Scottish homes. If communications can help to establish a similar level of norm around heat pumps, it may add to the credibility of other messaging around the benefits of installing one.

Communications examples which were linked to this messaging theme included:

- Communications from messengers with both trust and brand recognition in the sector (such as energy providers, manufacturers of gas boilers, or local installers)
- Communications which used real heat pump owners as messengers, especially when supported by images of heat pumps in everyday domestic settings
- Visual depictions of heat pump uptake (such as NESTA's "Visit a heat pump" website, which included an interactive map showing where their heat pump champions were based) helped to build a sense of local norm.

### Communications example in focus: Local manufacturers

In the homework tasks, participants often gravitated towards advertising (Fig.1) from trusted local installers or prominent names in manufacturing (e.g. Worcester). These brands are associated with the current norm of gas central heating, which meant that participants who saw them appearing to embrace heat pumps as part of their offer were more receptive to the idea that heat pumps are part of a current norm. Additionally, the trust felt towards these brands was important in avoiding cynicism about the other co-benefits such as running costs or financial incentives.

### 2.3.2 Running costs were an important factor in choosing a new heating system

Participants were generally price sensitive when making decisions about home heating, with discussions often returning to energy costs. Cost efficiency is an important factor in forming positive or negative attitudes about heating systems, with almost all participants holding the view that a "good" heating system is one which offers value for money. This aligned with the desk review insight around the importance of pricing to both barriers and motivators (see Appendix A). The potential to save money was therefore a strong motivator for consideration, and even participants who harboured some doubts over the effectiveness of heat pumps tended to be motivated enough by potential cost savings to at least conduct some further research. A key example of this from the stimulus materials used in group discussions was Octopus Energy's heat pump campaign, which highlighted an exclusive energy tariff for heat pump customers.



Figure 1: Local boiler and heat pump installer (The Edinburgh Boiler Company, 2025)

Conversely, group discussions and interviews found that financial barriers are key in determining perceived behavioural control over the decision to invest in a heat pump. Even with a positive overall attitude to heat pumps, people are unlikely to engage further if they believe they are not affordable to run day-to-day. This finding highlights a major challenge for communications around heat pumps. Current energy pricing in Scotland means that running cost savings are not guaranteed by switching to a heat pump. However, any future change in energy pricing which would enable a claim around cost savings to be made would present a significant opportunity to increase the appeal of heat pumps versus gas boilers.

Credibility of messenger was an important factor in messaging on this topic. Claims from less trusted sources, such as unfamiliar installers or energy firms with perceived low customer satisfaction, were much more likely to be met with cynicism. Many participants had a favourable view of the utility firm Octopus, which lent credibility to their claims about heat pumps and their running costs. Alternatively, trusted brands in the consumer or financial advice space such as Which? or Martin Lewis played a valuable role in shaping attitudes for those beginning to seek out information on heat pumps.

### Communications examples in focus: “Real people” case studies and champions

Examples from NESTA and Home Energy Scotland, both of which opted to present real-life owners of heat pumps as their spokespeople, had the advantage of contributing to building the norm around heat pumps and also offered credible claims about running costs. They combined an approachable, confident tone with realistic imagery depicting heat pumps in domestic settings (in the case of NESTA these were often supplied by the homeowners themselves, which added to the sense of authenticity).

Figure 3: NESTA’s visit a heat pump info page & visit a heat pump online portal (Nesta, 2025)



Figure 2: Home Energy Scotland heat pump case study / hero (Home Energy Scotland, 2025)

### 2.3.3 Highlighting financial incentives and grants which subsidise up-front costs

As with the theme of lower running costs, the price-sensitive nature of home heating decisions meant that financial incentives had strong motivational potential for participants. Highlighting the availability of financial support for heat pump installations was a prevalent theme in the media reviewed during the desk review (see Appendix A). Given the higher up-front cost of heat pumps in comparison to gas boiler systems, offering to subsidise this tended to positively influence attitudes towards heat pumps, and increased participants' perceived behavioural control by making them feel more affordable. For many participants, the potential savings offered by incentive schemes would be enough to prompt some warm-up action, even if some cynicism about other benefits of heat pumps persisted.

A related sub-theme around financial incentives was identified. Some installers at both local and national level offered to support clients with the grant process, which further reduced the non-financial cost of installing a heat pump.

This messaging theme generated a degree of cynicism, particularly around the prevalence of scams linked to government grant schemes. In interviews and group discussions, anxiety or concern about scams tended to be triggered by the tone or word choice. Participants were alert to the use of phrasing associated with a sales pitch, or the use of qualifying phrases in claims, and typically reported that this type of phrasing damaged overall trust in the message.

The credibility of the messenger themselves also had an impact on the effectiveness of grant and incentive messaging. Government agencies were trusted to be factual about the terms and conditions, although some participants had a degree of wariness about the use of qualifying phrases in some messaging. In particular, some participants felt that the prominent use of the phrase "up to" in communications about grants led to the assumption that the quoted maximum grant amount would be difficult to qualify for.

In addition, some participants found the grant amount itself to be demotivating, as they assumed that the government would not sanction a large incentive unless the overall cost of installing a heat pump was sufficiently expensive to deter consumers.

To avoid the cynical response which some communications received here, there is a need to be up-front and honest about eligibility and avoid over-use of qualifying phrases like "up to £X" or "you could save". Findings indicated that the most effective communications approach would be to leverage credible messengers such as government agencies, consumer advice brands and trusted suppliers where possible.

"I'm not so sure about the ones that talked about grants. Now, does everybody qualify for that grant? Because often when you click on these things you're not eligible and next minute you've got 40,000 emails and phone calls from companies wanting to sign you up to their solar panels and everything, so I'm always very wary of these kind of things." (M, C1, 50-75yrs)<sup>2</sup>

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<sup>2</sup> Quote labels reference participant gender, socio economic classification and age bracket.

### 2.3.4 Installers offering to take care of preparatory work

This messaging theme tended to be less effective for the pre-consideration audience. However, for participants who were at the consideration stage, it did have some potential to move them closer to warm-up action.

This theme is linked to the non-financial costs associated with heat pump installation, for example additional research and information gathering, planning retrofitting works and applying for financial support. Participants who had considered heat pumps in more depth than the pre-considerers tended to view these additional tasks as adding significant friction to the process of switching to a heat pump. Conversely, replacing their gas boiler like-for-like with another boiler was anticipated to involve less additional effort on the part of the consumer. As with the purely financial incentives, warm-up behaviours were motivated by a perceived opportunity to avoid cost, and the additional effort and time required to retrofit a property.

Challenging the existing belief that heat pumps are disruptive or difficult to install proved to be an effective message, especially when paired with a credible messenger with a link to the energy or heating industries. For some participants, the idea that a trusted organisation was willing to handle some of the administrative burden of planning and securing financial support increased their perceived behavioural control.

"I quite like the first one [Octopus] because it did everything for you. You don't need to go in and source it. You don't need a separate company to come in and do the electrics. Everything is done for you from start to finish." (M, C1, 50-75yrs)

Again, trust in the messenger is an important factor in ensuring messaging was received without cynicism, as the offer had some similarities with scams (e.g. around insulation or solar panels). Having a trusted brand to underpin messaging and providing a rough figure for the overall cost of retrofitting helped reassure participants.

#### Communications example in focus: Octopus Cozy Heat Pump

Reducing non-financial cost was a core message and part of the communications mix used by the UK energy firm Octopus to launch their heat pump offer. The credibility of their brand was high for many participants, which contributed to an overall positive reception for their communications when tested in the group discussions. The communications mix for this effective campaign featured messages which did more of an educational job about heat pumps and their benefits in comparison to

Figure 4: Octopus Energy heat pump ad (Octopus Energy, 2025)

gas boilers. It also included an offer to support with grant applications and retrofitting works alongside financial savings messaging.

“I really like the Octopus one, purely because I am an Octopus customer. I think they're really good at what they do. And I think for the last few years, energy companies in general have got so much bad press. I would be a bit nervous about going somewhere else for a heat pump and dealing with somebody that I didn't know.” (F, AB, 50-75yrs)

## 2.4 Message themes which did not move participants towards action

The following message themes were not found to be effective in prompting participants to consider heat pumps and also did not help to motivate warm-up action. In some cases, these themes have potential as supporting or educational messages, either to increase the public's familiarity with heat pumps or to reinforce the idea that those who have made the switch made the right choice.

### 2.4.1 Highlighting the potential to increase property values by installing heat pumps

While this was considered to be a potential benefit of heat pumps by some participants, the primary issue was simply lack of awareness of this as a reason to switch to a heat pump. There was not a perceived social norm around installing heat pumps as an investment to increase property value, as no participants in group discussions had heard of people switching to a heat pump for this reason. Similarly, none of the participants were aware of any media featuring messaging which framed heat pumps as a means of increasing property value. Participants understood that in a scenario where gas heating was close to being phased out as a viable option this message would be more motivational.

These findings are enough to suggest that this message theme could be tested for motivational value again in future if heat pumps become part of the norm, but at present the benefit was too hypothetical to have a significant impact on participants' intention and action. In some discussions, this message theme had a demotivating effect, as it prompted participants to consider other home improvements they could make for a similar outlay, and often with less disruption to the home.

### 2.4.2 Highlighting heat pumps' greater energy efficiency in comparison to gas boilers

The key issue undermining this message theme was around the audience's understanding of what “efficiency” meant in a home heating context. For most participants, an “energy efficient” heating system was synonymous with cost efficiency, as they think of heating their home primarily as a household utility. For those who understood the difference more clearly, energy efficiency was simply far less relevant to their day-to-day lives unless it also translated to a reduction in household bills.

Further complicating the use of this theme is the fact that many participants noted that modern gas boilers are frequently advertised as being highly “efficient”, which led them to question whether this was a unique benefit of heat pumps.

### **2.4.3 Presenting gas boilers as a technology which is being phased out**

While most participants agreed with the basic premise of this message theme, they tended to deflect the need for action due to an expectation that this would take place over a long timescale. The long lifespan of the average gas boiler meant that a “wait and see” attitude was prevalent among participants who were more aware of heat pumps.

Instead of motivating action at the next crucial moment, the response in discussions was often around the idea that consumers would be sensible to make their next heating system a modern gas boiler and consider making the switch at the next moment of change after that, in the hope that technology had improved further and the up-front and daily running costs had improved by this point.

As with messaging around increasing property values, there is some value in the idea of re-testing this message in future if a larger proportion of Scottish homes have switched away from gas central heating.

### **2.4.4 Having a heat pump instead of fossil fuelled heating improves air quality at home**

This message theme lacked motivational value for almost all participants due to a lack of recognition of any air quality problems caused by gas boilers. Participants were unaware of any health issues as a result of gas or oil systems. Although coal fires were occasionally mentioned as an antiquated fuel source which was associated with poor air quality, participants did not link these issues to gas heating.

### **2.4.5 Highlighting the climate benefits of heat pumps**

Desk insight showed that this type of messaging was prevalent in media promoting heat pumps (see Appendix A), however the primary insight did not indicate a positive impact on intentions or action. Although a reduction in carbon emissions was seen as a positive benefit of heat pumps by most participants, it was not sufficiently motivational to serve as a core message for communications aimed at increasing heat pump uptake. Given the current context of the home heating market and wider concerns about the cost of living, price sensitivity and worries about running costs were prioritised over climate change goals.

For some participants, typically those with lower background knowledge about heat pumps, there could be a demotivating effect if climate benefits are presented as a core benefit for switching. This was because climate-friendly behaviours (e.g. electric vehicles or recycling) were associated with making sacrifices, both financially and in terms of convenience. Presenting heat pumps as primarily a choice made for climate reasons had negative connotations for these participants, who assumed that heat pumps would be a more expensive and/or less convenient product compared to gas heating.

### 2.4.6 Presenting heat pumps as “cosier” or providing more consistent warmth than gas boilers

Many participants did not fully understand this messaging theme. Similarly to messaging on air quality, the promise of “cosier” or more consistent warmth did not cut through as a strong benefit of heat pumps. This was because few participants had issues with the performance of their existing gas system in terms of providing warmth. The idea of providing affordable heat was far more salient and motivational than the idea of consistency for most participants.



Figure 5: UK Government Heat Pump Campaign (Group discussion stimulus)

## 2.5 How choice of messenger impacted on heat pump communications

The ideal communications approach would employ consistent messaging from a wide variety of sources with some credible connection to the home heating or home energy sectors. With levels of trust and credibility varying from one participant to the next, consistency and breadth of sources will be important if cynicism is to be avoided.

### 2.5.1 Industry sources

Credible industry sources are important, but not only for practical information on cost, performance or installation. Seeing prominent brands in the gas heating industry offering heat pumps also contributes to the sense that the norm is shifting towards heat pumps. Energy providers are an important voice in the sector, although consumer trust is highly variable between brands. They play a key role in speaking about cost and affordability, which are important factors in the decision-making process for heating systems. Heating system manufacturers were similarly credible here, as their communications were seen as an endorsement of the viability of heat pumps, helping to position them as a choice alongside gas boilers.

"It's from Octopus Energy, isn't it? So, it's from a reliable energy company. It's not from some third-party kind of thing." (M, C1, 50-75yrs)

## 2.5.2 Government

The Scottish/UK governments, and their associated brands (e.g. Home Energy Scotland), can play a key role in educating the public about heat pumps, and especially in promoting financial support. Government communications will also have opportunities to help build the norm around heat pumps, by highlighting anywhere that they are being adopted in the public sector.

Given the need for consistent messaging across sources, there is a potential strategic communications role behind the scenes for government, in helping to coordinate and support/incentivise industry sources to promote heat pumps.

## 2.5.3 Word-of-mouth

Word of mouth recommendations are important drivers of social norms and can be deemed more trustworthy than messaging from commercial or government sources. Friends, family and tradespeople were all mentioned as key in shaping attitudes and beliefs. However, most participants would only be likely to spontaneously discuss heat pumps if they were already in the process of weighing up a decision.

## 2.5.4 News sources

Trusted news sources varied from one participant to the next, but stories highlighting benefits of heat pumps and milestones in uptake helped to build the norm. Positive media coverage is also important to counter other stories which highlight the drawbacks of heat pumps in favour of gas and other fossil fuelled systems.

## 2.5.5 Consumer organisations/influencers

Consumer organisations and influencers (such as Which? or Martin Lewis) are important sources due to their perceived impartiality and expertise. Most participants associated these channels with unbiased information and tended to consult their reviews and other content when deciding on large purchases. Homework discussions indicated that smaller micro-influencers in the home improvement space could also play a role in driving norms by modelling the overarching target behaviour and presenting heat pumps in a favourable light.

## 2.6 How tone impacted on heat pump communications

Participants consider buying a heat pump to be an important decision requiring careful consideration of pros and cons. Therefore, participants responded best to a factual, confident tone in communications.

### 2.6.1 Tones which were effective in promoting heat pumps

A confident tone was common throughout the commercial and government communications which were received positively. This tone tended to speak positively and authoritatively about the benefits of heat pumps, while avoiding over-promising. Celebrating and highlighting the benefits of heat pumps was not associated with cynicism, as long as a “sales pitch” tone is avoided.

Adopting a tone which presented heat pumps as established, every day or normal was also

effective, especially when looking to build the norm around them or challenge the existing norm around gas heating. The more heat pumps are framed as a popular choice, or as one of the default options available to consumers, the more likely they are to be considered when a moment of change occurs.

A factual, honest and unbiased tone is also essential when making claims about heat pumps. Many participants were wary of over-promising and scams. Communications which aim to build awareness for the pre-consideration audience should aim to strike a balance between acknowledging barriers such as up-front cost and being confident about benefits.

### 2.6.2 Tones to avoid when promoting heat pumps

Due to the prevalence of mistrust and cynicism, particularly around grants and financial support, communications should avoid the use of “sales pitch” phrasing or any terms which could be associated with clickbait or misleading advertising. Participants were very alert to the use of qualifying phrases in headlines and written content, and tended to react negatively to these. Examples of this type of phrasing included terms such as “up to” or “you could save”.

“Oh, I don’t like that bit where it says, “up to £7,500”. It would put me off applying. You just know it’ll be almost impossible to actually get the full amount. It makes me wonder if I’d get anything at all!” (F, AB, 30-39yrs)

With some participants adopting a “wait and see” attitude around heat pumps, which was in effect a soft rejection of the call to action, communications should avoid an overly futuristic tone. Positioning heat pumps as new or advanced technology risks reinforcing this attitude and reducing motivation to act at the next crucial moment.

## 3 Behaviour set 2: Electric vehicles

### 3.1 Context

#### 3.1.1 Product/offer

Participants viewed the decision to buy or lease a new car as a high-involvement decision. As with a change of home heating system, participants expected to engage in extensive information gathering as part of the process. The potential to avoid unnecessary costs or inconvenience associated with purchasing an unreliable or unsuitable car offered a significant incentive to research a purchase. This was not a decision which participants expected to make frequently, which meant that knowledge and attitudes were not always updated without reaching a moment of change and beginning the process of contemplation and preparation. This factor became apparent in initial group discussions, with some participants surprised to learn about technological improvements made to EVs in recent years. Improvements to range and battery performance were particularly effective in prompting a change of attitude.

Cars were viewed as a relatively high interest, aspirational product. Some participants drew a comparison with heat pumps to illustrate that cars, and by extension EVs, possessed a

greater degree of social value. Although practical concerns remained the critical deciding factors in choosing a car, participants reported that aspiration played a role in the decision. Participants reported that they were more likely to notice and/or comment on friends, family or neighbours getting a new car. There was a sense in group discussions and interviews that the aspirational value attached to new cars could be a useful tool in promoting EVs.

Despite the aspirational and social dimensions of the decision, getting a new car was still a decision which was typically driven by necessity, with events such as breakdowns or reaching the end of a lease agreement identified as typical moments of change.

Perceptions of infrastructure also played an important role in shaping participants' attitudes to EVs as a product. With ICE vehicles still considered the norm, perceived lack of access to charging infrastructure was an important consideration, although participants often had not researched this in depth to confirm their suspicions.

### **3.1.2 Market considerations**

The market for EVs was viewed by participants as established, but still growing. ICE vehicles are still perceived as being the norm in Scotland, but EVs are not considered to be an unusual choice. In part, this was due to the increasing visibility of EVs in public and in the media.

The initial group discussions revealed that industry communications had shaped participants' views on EVs. In particular, the prominence of luxury or higher-end brands such as Tesla in the EV sector led some participants to view EVs as a luxury/premium product, reinforcing assumptions about their higher up-front cost. Some of the stimulus materials included promotional media from EV manufacturers at a lower price point to facilitate probing around this assumption.

“I've always had the impression they were more expensive cars in general. Some of them look brilliant but I sort of assumed they would be too dear for our budget.” (M, C1, 40-49)

### **3.1.3 Social norms**

EVs were viewed by most participants as a future norm and as a choice which was becoming increasingly popular as a replacement for ICE vehicles. While ICE remains the default choice, most participants expected these vehicles to reduce in popularity in the coming years. While this lent itself to a positive view of EVs, this belief was also associated with the idea that EVs are still technology in an early development phase. Participants tended to expect the performance of EVs to improve further in the future, as well as hoping for their price relative to ICE vehicles to reduce. These attitudes lent themselves to a “wait and see” attitude among participants, which encouraged deflection or dismissal in favour of delaying a switch to EVs.

## **3.2 Moments of change: where the audience was most receptive to intervention**

### 3.2.1 Knowledge/awareness

At a basic level, self-reported awareness of EVs was high across the sample. As such, participants tended to have formed attitudes and beliefs about EVs based on what they had seen and experienced themselves. As cars were typically an infrequent purchase, this meant that some cynicism or negative attitudes and beliefs were linked to information gathered some years ago. Beyond having a basic understanding that they were battery-powered and had to be recharged by plugging into the electricity grid, participants tended to report less detailed knowledge around EVs. Questions tended to focus on:

- Range limitations
- Running costs relative to ICE vehicles
- Suitability for different lifestyles and driving needs, such as those who frequently drove longer distances
- Suitability for different geographic locations, especially parts of Scotland where poor driving conditions and lower temperatures are likely
  - Rather than being linked to battery performance in colder temperatures, this concern was often voiced by more rural participants who had experienced road closures due to snow. This led to potential “range anxiety” if the overall travel distance was increased without warning.

### 3.2.2 Behaviour change starting point for EVs

With awareness of EVs high across the sample, participants at the pre-contemplation phase of the Stages of Change model were primarily those who had ruled out the idea of buying an EV at an early stage of decision-making, rather than being simply unaware of EVs as an option. Typically, their reasons for doing so centred on either financial costs or perceived practical unsuitability. Attitudes about key barriers were often based on older information and could be out-of-date in the context of contemporary EVs. A “wait and see” attitude also often came through, as pre-contemplation audiences defaulted to petrol cars while not outwardly rejecting the idea of owning an EV in future.

The overall impact of this among pre-contemplation participants was that compared to ICE vehicles, EVs were more likely to be ruled out of the decision-making process at an earlier stage based on assumptions about their relative expense or inconvenience.

Communications can potentially play an educational role in updating knowledge and challenging negative attitudes, as well as in positioning EVs as part of the current norm.

Participants who were at the contemplation stage were not likely to outright dismiss the idea of making their next car an EV. Often, these were people who had historically reached the contemplation or preparation phase before deciding against an EV. As with the pre-contemplation audience, this group may hold views about cost and performance based on outdated information which necessitates a myth-busting approach in communications. As they were more likely to have conducted some research in the past, this group tended to be more knowledgeable about EVs and were therefore more receptive to communications which highlighted the benefits of EVs in more detail.

### 3.2.3 Personal moments of change

Personal moments of change for a new car tended to be linked either to the lifespan of the current car or changes in life circumstance. For participants who preferred to finance their car through hire purchase or similar, reaching the end of a payment plan or lease agreement often triggered consideration of a new car. For those who owned a car outright, noticing more frequent or more expensive maintenance needs was often the cue to begin researching a replacement.

Some participants highlighted changes to work or life stages as moments of change. For example, having a baby or having children leave the family home could be a prompt to consider upsizing or downsizing the family car. A change in working requirements was also mentioned, with people who expected to drive more or less frequently in a new job, or who expected to be driving in different conditions were often prompted to consider a replacement.

### **3.2.4 External/market moments of change**

At market/society level, key moments in the development of EV technology, uptake of EVs, and changes to pricing and financial incentives all factored in the decision-making process. Changing social norms were also a notable moment of change for attitudes and beliefs. While they were less likely than personal moments of change to prompt immediate action, participants often spoke about the positive impact of seeing more EVs and EV infrastructure in their local area. Similarly, friends and family swapping an ICE vehicle for an EV was mentioned in some discussions as a trigger for contemplation.

With perceived lack of charging infrastructure often mentioned as a barrier, becoming aware of the increasing number of charge points across Scotland had the potential to prompt contemplation. Similarly, any reduction in the up-front cost of EVs, or improvements to the various financial incentives offered by government and manufacturers had the potential to nudge participants towards finding out more.

Milestones of uptake could also serve as moments of change if highlighted in communications. Being presented with evidence that EVs are increasingly being chosen over their ICE equivalents helped to challenge the “wait and see” attitude. This also helped to position EVs as part of the current norm rather than an incoming one. A similar effect was also observed around milestones in uptake for grants and incentives by creating a “fear of missing out”.

### 3.2.5 Associated warm-up behaviours

Participants highlighted a range of warm-up behaviours which would form part of their typical preparation for buying a new car. For the most part, these did not differ significantly from what they would expect to do if researching a new ICE vehicle:

- Online information searches (primarily through search engines)
- Reading consumer advice and reviews (including those from specialist motorist-focused publications, e.g. Autotrader)
- Word of mouth, including speaking with friends or family who own an EV, but also in some cases seeking advice from professionals (such as mechanics)
- Booking a test drive was associated with being further downstream in the decision-making process as it involved more effort and therefore was typically reserved for deciding between individual models of car.

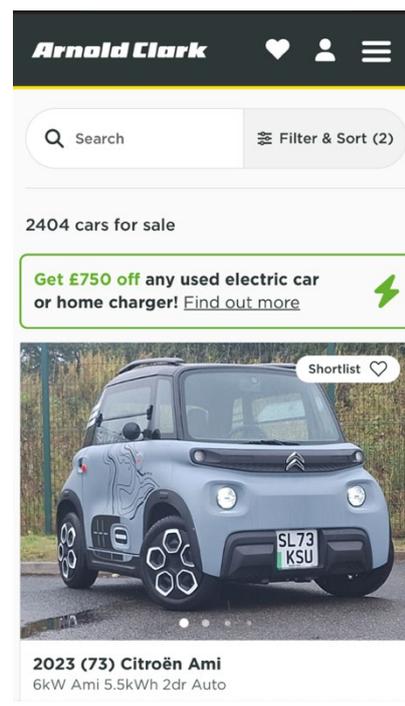


Figure 6: Arnold Clark search result page for EVs (Participant submission)

## 3.3 Message themes which had the potential to move participants towards action

### 3.3.1 Presenting EVs as part of the norm in Scotland

This core communications proposition was important for pre-contemplation and contemplation audiences. Challenging the perception that ICE vehicles were the norm and positioning EVs as part of this norm had a strong effect on their likelihood to engage in warm-up behaviours. The idea that “people like me” were already making the switch away from ICE vehicles played an important role in priming participants to engage in warm-up behaviours when they next reached a crucial moment. Participants who reported taking warm-up action over the course of the research often mentioned seeing more EVs in their local area or engaging with friends and family who owned one when asked about factors which influenced their action.

**Communications example in focus: Volkswagen Stories**

One of the most effective stimulus materials in prompting consideration and increasing the likelihood of action, was this video series produced by Volkswagen UK to promote their ID range of EVs. The videos feature real customers who made the switch to an EV and tend to focus on the benefits of EVs in everyday driving. Using the drivers themselves as spokespeople and avoiding a heavily stylised depiction of the car helped to ground the messages. One particularly impactful example featured a Scottish couple who regularly travelled between Oban and Glasgow. Participants praised the authenticity of this approach, and the use of a recognisably Scottish example of a long journey felt more memorable than simply quoting a figure to illustrate the car's range.

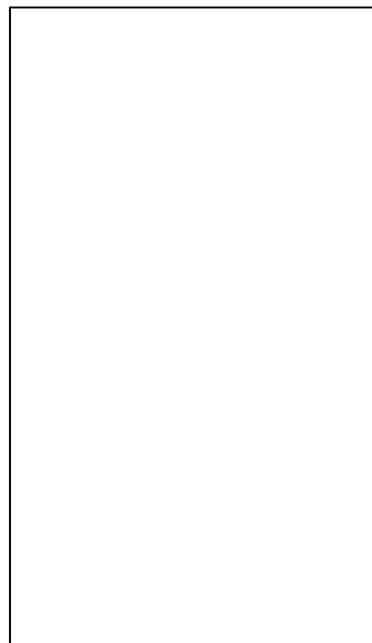


Figure 7: Tom's VW story (Volkswagen UK, 2025)

"I really liked the one that explained about the chaps that were taking people from the hospital. I just liked that it sort of gave that confidence that it could be used. It's giving you actual real-life scenarios from a real-life situation that's happening...the importance of their journeys as well, and they trust that car to be reliable enough to do that." (M, C1, 25-49yrs)

If this sense of norm can be created and reinforced, it is likely to boost the credibility of other messaging as well as prompting re-consideration of previously held beliefs. For example, those in rural or semi-rural locations may be prompted to reconsider their views on range and charging infrastructure if they begin to perceive the local norm shifting towards EVs. To achieve this, communications which presented EVs in normal everyday situations, and that spotlighted people with lifestyles that did not fit with the negative view of EVs, were particularly useful.

### 3.3.2 Raising awareness of improvements to EV range

This messaging theme evidenced the importance of communications in a myth-busting role for both the pre-contemplation and contemplation audiences. One of the most frequent reasons participants gave for not choosing an EV was the belief that they would require frequent recharging in order to cover the distances the participant expected to cover. This was usually contrasted with the ability of ICE vehicles to cover large distances on a single

tank of fuel. Messaging from car manufacturers included in the desk review often highlighted range as a key feature for current-generation EVs (see Appendix A).

As cars were an infrequent purchase, discussions often revealed that participants had based this view on information which had been available the last time they reached a crucial moment. Frequently, this meant that participants were surprised to learn how far contemporary EVs are able to travel on a single battery charge.

“I didn't realise you could probably get to Glasgow and maybe back on some of the newer ones. For me that's something I'd be interested in finding out a bit more about.” (F, 50-59, AB)

### Communications example in focus: Which? online EV quiz

This interactive advice resource from the consumer advice brand Which? was presented as a quiz. Users answered a short series of questions about their living circumstances and driving habits and received tailored advice on whether an EV would be a viable choice for them. This medium was useful in prompting participants to revisit assumptions about the range of EVs, as well as prompting some contemplation about the change of habit required to keep an EV charged up in contrast to their existing habits around filling up at a petrol station. The brand credibility of Which? as a perceived neutral party helped to foster trust in the advice given. It was possible for users to receive advice that recommended against buying an EV, which could be demotivational. However, some participants noted that the fact this was a possible outcome added to the sense of impartiality.

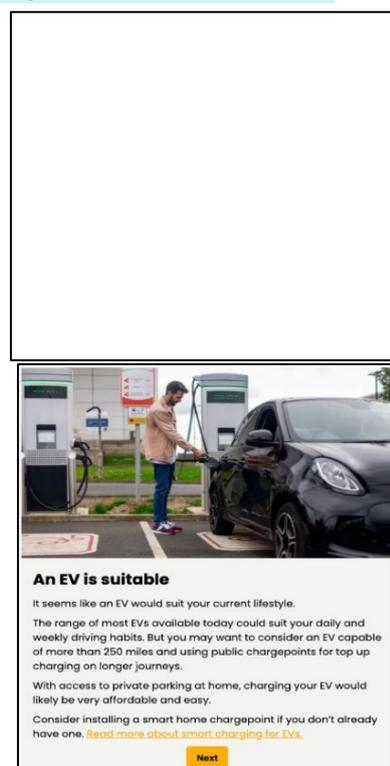


Figure 8: Which? EV feature and quiz (Which?, 2025)

Successfully challenging the perception of low range reduced the impact of other barriers. Based on this message, participants reported that the perceived lack of charging infrastructure, and the “hassle” associated with expecting to re-charge an EV more often than an ICE vehicle would need refuelled, were less of a concern. Likewise, as low range was associated with the belief EVs were a technology that was still in development, myth-busting on range helped to dispel the “wait and see” attitude.

Linked to this wider theme, some communications examples which encouraged participants to think about the distance required to cover a single week of average driving helped to re-position the range of EVs as sufficient for everyday needs.

### 3.3.3 Highlighting EVs with lower up-front costs

This messaging theme was effective at both the pre-contemplation and contemplation stages, as it challenged the belief that EVs were a premium product with a high up-front

price. Challenging this view was essential to moving the pre-contemplation audience towards contemplation, as perceived high up-front costs tended to encourage dismissal early in the decision-making journey. For those who were contemplating an EV, being made aware of the options at lower price points increased their perceived behavioural control and encouraged further research to explore their options further.

This core communications proposition also has the potential to increase the sense of EVs as the incoming norm. The perception of EVs as a high-end product was in part linked to the strong impact of brands such as Tesla in popularising earlier generations of EVs. In contrast, promotional communications for more affordable EV models often focus significantly on price. For participants, seeing a wider variety of manufacturers, including mid-market or cheaper brands, helps to drive the idea that EVs are becoming increasingly popular across society rather than just for an affluent subset of the population.



Figure 9: MG Out-of-home advertising (Group discussion stimulus)

### 3.3.4 Raising awareness of improvements to charging infrastructure and performance

This theme focuses on drawing attention to the increasing proliferation of public EV charging across Scotland. A sub-theme is around raising awareness of the increased availability of rapid charging. The impact of this was similar to messaging around range, prompting participants to revisit their beliefs about whether owning an EV would be a practical choice over an ICE vehicle.

For the pre-contemplation audience, the benefits of this messaging theme lie in reducing the risk of rejecting EVs as an option altogether. Participants who felt that public chargers were easily available locally tended to be more receptive to the idea of considering an EV for their next car. Additionally, some of the follow-up interviews indicated that discussions on the topic had primed participants to notice charging infrastructure in their local area, reinforcing the idea that EVs were part of the wider norm. Interactive online tools proved to be an impactful way to communicate this message to the contemplation audience, largely because they encouraged participants to reconsider beliefs about local infrastructure. Urban residents assume public chargers will be busy, while rural residents assume there will be few chargers nearby. Visually showing the number of available chargers on a map often prompted participants to change their view. Likewise, case studies and/or “real people” as spokespeople in communications added a sense of local authenticity to messaging which highlighted access to charge points.

“I imagine peak time in the Highlands it would be tough to get a space to charge. If you’re on the North Coast 500 basically any time between

March and October, it's just going to be constant [public chargers in use]."  
(F, 40-49, C1)

An important sub-theme linked to this topic was the need to explain how EV charging works to an audience who are familiar with petrol infrastructure and its associated habits. Participants tended to assume that public chargers would be a significant part of meeting their charging needs. Explaining that for many EV owners, home charging is the primary source of energy, with public chargers acting as a top-up for longer journeys or busy moments will be important to reduce concern about access to infrastructure.

#### Communications example in focus: ChargePlace Scotland

This interactive route planner allows users to plan journeys and check the availability of public chargers across Scotland. It shows the location of charging points and also uses a traffic light system to indicate which chargers are in use in real time. For participants who had reached the contemplation stage, this tool helped to build their sense of familiarity with local infrastructure, reducing “range anxiety” and also prompting them to plan out the journeys they might expect to make.

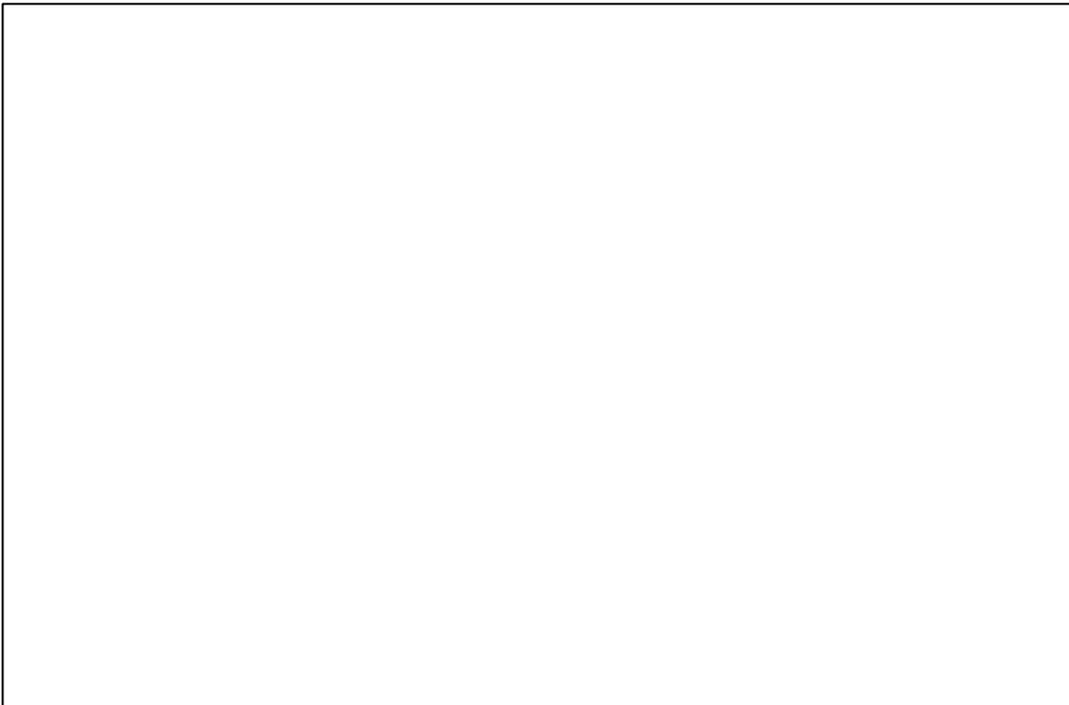


Figure 10: ChargePlace Scotland map

### 3.3.5 Highlighting financial incentives/grants

Although less impactful than range, infrastructure and cost, the availability of financial incentives was often sufficient to generate some interest among participants. This was associated with a specific warm-up behaviour. Rather than being linked directly with intention to purchase an EV, participants often reported that, as a result of communications focused on grants, their warm-up behaviour began and ended with a quick check of eligibility.

Similarly to messaging about lower than expected retail prices, there is potential for this message theme to increase perceived behavioural control by lowering the expected up-front cost of an EV.



Figure 11: BBC News article highlighting EV grant scheme (Group discussion stimulus)

There was a potential drawback to this core communications proposition linked to participants' assumptions about why a government incentive would be deemed necessary. As with similar messaging on heat pumps, some participants took the presence of a financial incentive as confirmation that the up-front cost of an EV would be off-putting, reinforcing one of the main barriers to adoption.

“My first thought there is, if they're offering you something like three grand off the price of a new electric car, how much is it in the first place?”  
(M, 50-59, C1)

As a sub-theme, some communications around EVs specifically highlighted grants or other incentives towards installing home charge points. Incentives focused on home charging tended to be received more positively than larger incentives which subsidised the cost of the car itself. This was due to participants who were sceptical about a larger incentive believing that that they were more likely to qualify for a smaller incentive.

Messaging which highlights growing uptake of financial incentives to buy an EV can also help to build the overall sense of social norm around EV ownership.

One further risk of this core communications proposition was linked to eligibility. Some participants who took action during the research project were disheartened to learn that they did not meet the criteria for a grant. This tended to reduce their motivation to pursue further information-gathering on EVs. Effective targeting and clear communication on criteria will be required to mitigate this.

### 3.3.6 Highlighting lower running/maintenance costs versus ICE vehicles

This message was more relevant to those at the contemplation stage, as maintenance and running costs tended not to be an important issue in comparison to range, infrastructure and cost. The theme still had some value as a sub-message for pre-contemplation participants, as it helped to position EVs as an advantageous choice and added to the list of potential benefits. As with other financial message themes, the potential to save money was often enough to merit a quick initial search, even for those who were still unconvinced by other benefits.

For those actively comparing ICE to EVs, reduced running costs presented an attractive proposition which felt worth looking into. Participants tended to associate the idea of running costs with potentially paying less tax, spending less on maintenance, or paying less per mile travelled in comparison to an ICE vehicle. Where EVs feel like the more affordable

choice day-to-day, perceived behavioural control was likely to increase. Participants who felt EVs might offer lower day-to-day costs often felt that this could justify spending more up front. For participants with negative experiences around reliability in an ICE car, this was a strong argument to consider an EV.

The most effective media for this message tended to be more long-form and written content, including articles from consumer organisations or reviews from car magazines/sites. Word of mouth was also highly valuable here, and participants reported that the experiences and views of other EV drivers or mechanics were potentially influential.

“I was doing a bit of reading, and it seems that you can get a tariff for your energy bills that makes it cheaper to charge your car up overnight. I still don’t know if that would actually add up for me, but it’s food for thought.”  
(M, C1, 30-39yrs)

### 3.4 Message themes which did not move participants towards action

#### 3.4.1 Presenting EVs as advanced/superior technology in comparison to ICE vehicles

While the idea of a better driving experience and owning the latest technology was positive for participants, it did not tend to prompt changes to attitudes or behaviour. The key flaw in this core communications proposition was its lack of specificity. Without specifically addressing their negative attitudes and beliefs around cost, range and infrastructure, there was not enough to convince participants to re-evaluate their existing views.

#### 3.4.2 Focusing on climate benefits of EV ownership

Participants reported that this message theme alone was not enough to overcome their reservations about financial and practical factors. While most participants did not reject the idea entirely, climate benefits fit best as a co-benefit which could help reinforce the decision to buy an EV once it had already been made.

In some discussions, there was a degree of cynicism around the environmental credentials of EVs, for example about the climate impacts of the wider EV supply chain.

“We’d all love to have an electric car and do our bit for the climate, but when there’s expenses elsewhere maybe a big cost on a car isn’t top priority.” (M, C1, 30-39yrs)

#### 3.4.3 Highlighting potential improved local air quality from EV ownership

This messaging theme lacked perceived relevance for most participants. There was a tendency not to recognise air quality in Scotland as an issue requiring significant action. This was particularly true for participants living in rural or semi-rural areas. As participants’ main front-of-mind concerns around EV ownership were financial and practical, improved air quality was perceived as a minor co-benefit at best.

“It’s like when they started adding Low Emission Zones in Edinburgh. I had to change my car as well, but I don’t see the effect that it’s actually had on the air, it still seems the same to me!” (M, C2, 30-39yrs)

### 3.4.4 Presenting ICE cars as likely to be phased out in the coming years

While this message generally felt credible to participants, it was not sufficient to prompt contemplation or warm-up action. The credibility of the messaging was reinforced by recent policy changes, such as the introduction of low emission zones in large cities. However, participants did not anticipate ICE vehicles to become significantly less viable in the short-term. Coupled with the long period expected between car purchases, this theme was associated with the “wait and see” attitude for most participants, reinforcing the idea that delaying the switch to an EV was the best course of action.

It's fair to say [petrol] is on the way out. As it stands though, I think it's not likely my next car will be electric. Maybe the one after that? (M, C2, 30-39yrs)

## 3.5 How choice of messenger impacted on EV communications

Given the importance of establishing a social norm around EVs, consistent messaging across a diverse mix of sources will be required. Additionally, the need for education or myth-busting to update and challenge existing attitudes around EVs means that messengers with a reputation for fairness and balance will be particularly useful.

### 3.5.1 Industry sources

One of the most important factors in driving the perceived social norm around EVs at a national level will be the visibility and credibility of recognised brands in the automobile industry. Seeing major manufacturers promoting EV models alongside or instead of ICE models was interpreted by participants as a strong signal that EVs are a popular and viable choice. Messaging from car manufacturers increasingly frames EVs as an option rather than a special category. In addition, the increased presence of mid-market and more affordable brands in the EV market is likely to help challenge the perception of EVs as a luxury item.

### 3.5.2 Consumer organisations/influencers

Both general (e.g. Which?) and specialist car review brands (e.g. Autotrader, What Car) were frequently mentioned in discussions and interviews. For many participants, they are an essential part of the information search for those considering a new car. This gives them an important role in shaping opinion, driving norms, and educating their audience.

Online social media influencers can play a similar role. Some participants highlighted this in the homework tasks. In particular, content which emphasised the normality of EV ownership or offered insight on the day-to-day running of an EV helped to prompt deeper consideration and normalise the idea of owning an EV.

### 3.5.3 Word of mouth

Participants highlighted the importance of personal networks in shaping their decision on which car to buy. Some participants reported a positive recommendation from a friend or relative as having had a strong motivational effect, as they felt they could be trusted to honestly report on the advantages and drawbacks of owning an EV. Similarly, some participants mentioned asking mechanics, taxi drivers or other professionals about the reliability and costs of EVs as a way of tapping into their greater experience.

### 3.5.4 Government

Government communications around EVs can play a key role in education, myth-busting and in drawing attention to policy changes or milestones of uptake that can serve as a crucial moment. Government also has a potential role in amplifying any positive stories about grants/incentives, or improvements to infrastructure which reduce the friction of EV ownership.

### 3.5.5 News sources/PR

Mainstream news media was highlighted as a useful channel for reinforcing norms or introducing narratives which counter negative attitudes around EVs. For example, articles which highlight milestones of uptake or improvements to EV technology were potentially useful in shaping a more positive view of EVs in the general public.

## 3.6 How tone impacted on EV communications

### 3.6.1 Tones which were effective in promoting EVs

Many of the advertising and promotional materials from EV manufacturers which were well received adopted a confident tone, presenting their product as stylish and effective. For participants, this matched their expectations from car advertising in general, which contributed to the sense that EVs are part of the norm. Likewise, an aspirational tone which depicts EVs as a desirable product with social as well as practical value could be similarly effective in the specific context of advertising, especially when coupled with messaging which highlights affordability.

Adopting a more overtly “everyday” tone was also an effective choice. Putting the spotlight on real people or presenting EVs in straightforward, relatable situations was a useful way to reinforce the norm. Visually depicting how EVs can fit into a typical person’s life helped to prime participants to consider their own driving habits and whether they would be compatible. Communications which included a recognisably Scottish example were particularly effective.

For communications focusing more on an educational or myth-busting role, participants reacted positively to a reassuring tone, which felt like a good fit for the content.

### 3.6.2 Tones which were less effective in promoting EVs

Although higher end car manufacturers often emphasise luxury and advanced technology, this tone did not suit a wider audience. It risks reinforcing the belief that EVs are prohibitively expensive or only suitable for an affluent subset of the population.

Tones which focused more on the morality or ethics of EVs using a climate change framing were less effective in prompting action or encouraging participants to re-think their existing views. Participants were all aware that fossil fuels are detrimental to the environment, and that EVs are a way to reduce emissions. This led to communications being perceived as “preachy” or patronising by some participants.

## 4 Behaviour set 3: Drive less/use public transport

## 4.1 Context

### 4.1.1 Product/offer

In contrast to the previous two overarching behaviours considered as part of this research, reducing private car use and making more extensive use of public transport requires a change in everyday habit as opposed to an infrequent, one-off decision. For participants, this tended to seem like a larger, more complex call to action, as they had to consider how to adapt to and maintain the new behaviour.

Broadly, participants outlined two main contexts for driving less and using public transport more: commuting and leisure travel. For both, participants tended to favour reliability, convenience and value for money. Commuting tended to be viewed as more stressful, with greater time pressure than leisure travel. The decision here was often dominated by participants' attitudes and beliefs towards the public transport offer in their immediate area. The perceived quality and value for money of public transport varied considerably between areas. Levels of service provision and infrastructure also significantly differ depending on area of residence, so these attitudinal barriers were often linked to practical barriers.

The key benefits highlighted in the communications promoting public transport which were used in the research stimulus include:

- Additional free time gained versus having to concentrate on driving
- Avoiding the inconveniences of driving such as parking and heavy traffic
- The environmental benefits of choosing public transport

Most participants tended to have already considered the public transport offer and had formed a preference for travelling by car instead. Often, this meant their driving habits were engrained, and they tended to have a positive view of driving, perceiving it to offer a greater level of door-to-door convenience and better value for money than public transport.

### 4.1.2 Knowledge/awareness

Knowledge and lived experience of using public transport was ubiquitous across the sample. This meant that participants tended to hold well-established attitudes and beliefs, which were often based on their personal experiences of using local bus or train services. Communications promoting public transport use instead of driving face a considerable challenge in shifting these attitudes without being able to evidence material change or improvements to the services themselves.

### 4.1.3 Market considerations

The public transport sector in Scotland is highly developed. Participants had high awareness of both nationally and locally relevant providers. Often, public transport operators have an effective monopoly on particular routes or areas. This in turn means that their reputation and credibility have a strong influence on local people's attitudes towards reliability, convenience and value for money.

Overall, participants tended to report low levels of trust in public transport providers and often had an unfavourable opinion of their services. The recruitment criteria for this

research offers a potential explanation for the high degree of reported cynicism around public transport. Participants were recruited on the basis that there were no significant practical or financial barriers to using public transport more than they already did. This likely led to a sample who opted not to use public transport based on attitudes and beliefs. As a sub-audience, their views pose a challenge for communications promoting the benefits of public transport.

#### **4.1.4 Social norms**

While use of public transport is already part of the social norm across Scotland, private car travel is more prevalent and normalised. The degree to which public transport is part of the norm varies regionally, with reliance on public transport often considered less normal in rural or semi-rural areas. In some cases, participants who had moved between rural and urban environments identified a link between the perceived level of availability and service coverage and the prevailing social norm of using public transport.

“When I used to stay in Glasgow as a student, I would use the bus all the time, but now I’m back up in Inverness I don’t think they’re nearly as good, so most people I know don’t bother.” (M, C2, 30-39)

#### **4.1.5 Behaviour change starting point for driving less and using public transport more.**

Participants who were at the pre-contemplation stage for driving less tended to be people who held well-established negative attitudes about the quality and value of their local public transport offer, while also having a positive view on the relative convenience and value for money of travelling by car. This meant they defaulted to driving when planning a journey and were likely to dismiss the idea of travelling by public transport without much consideration. Consequently, the communications focus for this audience has to be on challenging existing attitudes and beliefs in order to prompt a re-evaluation of the benefits of public transport. Policy or infrastructure changes often provided the best opportunities to do this.

For participants who do contemplate reducing their driving in favour of public transport, the challenge is more around supporting the change of habit. Often, participants in this group believed that they already used public transport as often as it makes sense for them to do. Highlighting new ways to use public transport, especially for leisure journeys, offered a potential route to move them from contemplation to preparation.

## **4.2 Moments of change: where the audience was most receptive to intervention**

### **4.2.1 Knowledge/awareness**

Knowledge and lived experience of using public transport was ubiquitous across the sample. This meant that participants tended to hold well-established attitudes and beliefs, which were often based on their personal experiences of using local bus or train services. Communications promoting public transport use instead of driving face a considerable challenge in shifting these attitudes without being able to evidence material change or

improvements to the services themselves.

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#### **4.2.3 Personal moments of change**

At a personal level, opportunities to swap driving for public transport were often prompted by changing work or study requirements. As a change of job/study location means having to plan out a new commute and a potential change of daily routine, it offers a moment where existing habits must change regardless of the mode of transport chosen. Moving house offered a similar moment of upheaval where new habits are required. For both of these examples, the potential to motivate action on driving less was increased if the new location was perceived as having better public transport links than the old location.

Another key moment of change for participants was linked to eligibility for discounts. Reaching milestones associated with national or local discount schemes (e.g. an older person's bus pass, or student discounts) typically prompted participants to engage in warm-up behaviours to explore the potential savings.

“I've been thinking about my daughter's situation, going to university, and rather than taking the car, because she's under 22, they get, like, free buses. So that's a massive encouragement for her. And if she misses the bus, she'll often get the train, and them cutting the peak fares, that's made a big difference to the cost as well.” (F, 50-59, C1)

#### **4.2.4 External/market moments of change**

Negative attitudes about public transport among participants were typically based on perceptions of poor reliability, lack of service in the local area, or low value for money. This meant that any improvements to infrastructure or service, and any changes to policy which made pricing more affordable, afforded crucial opportunities to challenge these attitudes. Where communications were able to frame their messaging around a significant change like this, even the more cynical participants were likely to engage in some warm-up behaviours.

#### 4.2.5 Associated warm-up behaviours

Participants reported a range of warm-up behaviours associated with journey planning, which were essential to use of public transport regardless of whether they were planning a one-off leisure journey or considering a change of commute. These included:

- Online information searches using search engines and increasingly the use of AI assistants
- Route planning through map applications on smartphones or websites
- Route planning through public transport operators' apps or websites
- Viewing leisure travel content on social media

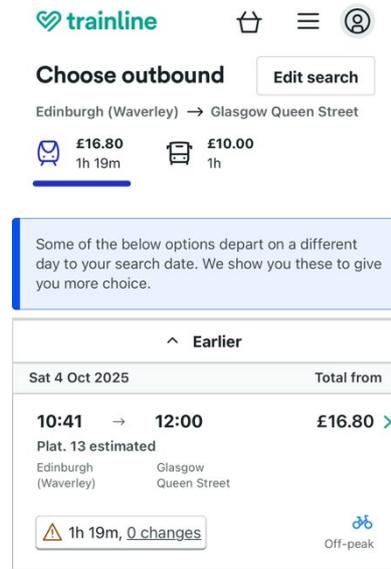


Figure 12: Trainline ticketing interface (Participant submission)

### 4.3 Message themes which had the potential to move participants towards action

#### 4.3.1 Challenging existing beliefs about public transport services

As participants at both the pre-contemplation and contemplation stages held at least some negative attitudes and beliefs towards public transport, communications which were able to prompt a re-evaluation of views were crucial. Perceived behavioural control was often low, especially for participants living in places that they believed to be poorly served by public transport. These participants reported that becoming aware of service improvements, such as additional routes or more frequent services, could prompt them to re-consider.

Public transport was widely believed to offer worse value for money than private car travel, meaning it is necessary to challenge this belief by highlighting value for money wherever possible e.g. through discount cards, price promotions, changes to fare policy. Participants tended to assume they were aware of the current options for discounts and savings, which meant that they were unlikely to engage in warm-up actions linked to researching pricing without becoming aware of new discounts or changes to existing pricing structure. An example of this type of messaging which proved effective was ScotRail's announcement of the removal of peak time rail fares.

Without material changes or improvements to frame messaging, public transport brands may struggle to challenge negative attitudes directly due to trust issues, with bus services in particular tending to have a low level of public trust. Some of the more human-focused social media content which was used as stimulus proved to be more effective at softening negative views on public transport than direct communications from public transport operators.

In contrast, participants tended to reject or dismiss claims which were not backed by a policy change (e.g. simply stating that public transport offered good value rather than highlighting a discount or price change). For many participants, the ScotRail example was

one of the few communications pieces which was sufficient to prompt warm-up action by itself, although there remained some cynicism around other factors such as reliability and convenience.

“[ScotRail] actually have a calculator that I used to see how much I could potentially save by taking the train, so yeah, I did take action when I saw this” (F, 30-39, C1)

### Communications example in focus: ScotRail peak fares announcements

Participants were shown several pieces of communication promoting ScotRail’s pricing changes at peak times, including promotional videos and PR/news headlines. The effectiveness of these communications lay in offering a straightforward, factual piece of information which challenged an existing negative attitude about value for money. Communications included examples of the money which could be saved travelling on some of Scotland’s busiest routes at peak times, which generated interest among participants. The ScotRail website featured a price calculator tool which was used by some participants in the homework tasks to explore the potential cost of commuting by rail.

Figure 13: ScotRail price change (ScotRail, 2025)

#### 4.3.2 Highlighting improvements to public transport policy, infrastructure, or service

This messaging theme was closely related to the previous theme around challenging existing beliefs. With participants’ views often deeply entrenched and based on prior experience, they were most receptive when confronted with a clear positive change to the public transport offer.

From a communications strategy perspective, the drawback to this theme is the fact that it requires a change to occur in order to provide a compelling reason to engage with the message. Improvements which have the potential to prompt re-consideration for people who have negative views about value for money, reliability or service coverage should be treated as a major opportunity. Coordination with public transport operators and colleagues in local or national government will be important to ensure these opportunities are used to their fullest advantage.

The type of changes or improvements which participants identified as likely to prompt a re-think of their current views included:

- The announcement of new bus, train or cycle routes in their local area
- A change of bus operator in contexts where participants held a strongly negative view of the current operator

- Changes to timetables or schedules which allowed for more frequent journeys, faster journey times, or extended operating hours
- The announcement of new discount schemes, price promotions or similar

“I kind of have to drive to work, where I work in an industrial estate. I think it's about two buses to get there, so it's obviously less convenient. So really the push for myself to get to work via public transport is obviously less. But I think with the peak fares going, it'd be nice to go down to Edinburgh or Glasgow via the train. I always end up driving because the cost of the train tickets, it's just really so expensive. So, yeah, peak fares going would really appeal to me” (F, 30-39, C1)

### 4.3.3 Focusing on leisure travel and “one journey at a time”

The effectiveness of this messaging theme lay in avoiding the deflection and dismissal associated with changing daily driving habits and instead focusing on encouraging participants to choose alternatives to private car travel when planning one-off journeys, especially leisure trips. For an entrenched driving audience, the idea of taking occasional leisure trips by train was a much smaller ask in comparison to replacing daily journeys to and from work, and was also something many participants had not considered doing for some time.

Communications which featured this theme tended to meet with less resistance than those proposing a change of habit. Participants were more likely to report warm-up behaviours as a result, helping to normalise greater use of the public transport. For those with entrenched negative views based on past experiences of public transport, this approach offered an opportunity to challenge these beliefs through new experiences.

One-off leisure travel was a more accessible call-to-action than commuting, as participants felt that the more infrequent occasional nature and lack of time pressure reduced the impact of barriers like perceived low reliability or cost. Some participants also engaged positively with the added value offered by using public transport to get to and from social or cultural events. For example, not having to drive home at night, or being able to drink alcohol at a concert.

#### Communications example in focus: Instagram influencer @thechaoticscot

This example highlighted the potential of travel influencers to encourage their audience to use public transport more and drive less. The example tested with participants featured a leisure trip to Rosslyn Chapel which involved multiple journey legs. Presented in a personable, relatable vlog style, the influencer highlighted the value for money and convenience of

Figure 14: The Chaotic Scot, 2025

public transport and combined travel advice with recommendations for food, drink and attractions. The inclusion of recognisable Scottish landmarks and public transport brands often prompted consideration of similar leisure trips among participants.

#### **4.3.4 Highlighting the additional free time gained by using public transport instead of driving**

This messaging theme was less effective for the pre-contemplation audience, but participants who were already at the point of contemplating more use of public transport found it to be encouraging. It was prevalent in messaging aimed at commuters by rail and bus operators in the desk insight (see Appendix A). For many participants, framing the journey itself as free time was a novel benefit which they had not considered before.

The main flaw in this messaging theme was that while it had the potential to build positive attitudes towards public transport, it did not directly address the major barriers of perceived low value for money, reliability and convenience. This meant those with low perceived behavioural control (e.g. people who believed they could not realistically make more use of public transport) were likely to reject messaging along this theme.

In addition, participants tended to associate the benefit of free time more with rail travel than bus travel, as buses tended to be perceived as more crowded and less relaxing than rail.

“I do sort of like the idea of getting time back to do your own thing, you could check a few emails in the morning and stuff like that.” (M, AB, 25-49yrs)

## **4.4 Message themes which did not move participants towards action**

### **4.4.1 Re-framing the costs of car ownership to include maintenance and other bills**

Some communications examples sought to prompt re-evaluation of the perceived value for money offered by private car travel (see Appendix A). When comparing costs between driving and public transport, participants tended to focus on fuel costs for their car, which often compared unfavourably with the price of an equivalent bus or train ticket. This messaging theme aimed to re-frame the price comparison so that it accounted for a wider range of costs associated with owning and running a private car, such as insurance, tax, maintenance and parking.

While participants acknowledged the idea that there were other costs beyond fuel, this core communications proposition was not particularly motivating. This was linked to the perceived sunk costs of car ownership, as participants who were very unlikely to give up owning a car would still have to pay road tax, monthly car payments and maintenance costs even if they decided to make greater use of public transport.

Some participants also brought up the idea of car sharing in response to this, as multiple people sharing the fuel cost of a single journey often represented a considerable cost

saving, further increasing the perceived value of driving versus buying individual tickets on public transport.

#### 4.4.2 Highlighting the drawbacks of private car use

This messaging theme focused on highlighting some of the inconvenient or stressful aspects of private car travel, which have often become normalised and accepted among habitual drivers. While this type of messaging was relatable and prompted some discussion among participants, it was not strongly motivational. This was due to the lack of a positive case for public transport as an alternative.

The overall effect of highlighting the drawbacks of car use was to prompt reflection on the stresses and problems of travel in general, especially in a commuting context. Some participants felt that this messaging theme had greater potential as a supporting message or sub-theme paired with messaging which highlighted the benefits of public transport.

There was also some outright rejection of messaging which presented public transport as inherently less stressful than travelling by car. Participants who had negative views of the reliability of public transport often highlighted the stress of late or cancelled services. Buses were also specifically mentioned by participants who associated them with stressful or negative experiences, typically the behaviour of fellow passengers.

“[The FirstBus ad] is quite fun and I like that. But if you’ve ever been on a FirstBus in Glasgow when it’s full of school kids I don’t think you’d say that’s less stressful than driving! (F, 50-59, C1)

#### 4.4.3 Highlighting climate change benefits of reducing car use

While the basic premise behind this core communications proposition was not rejected outright, participants tended to report little motivation to engage in warm-up actions based on communicating climate benefits alone. There was also little impact on attitudes, due to a perceived lack of new information. Participants generally felt that they were already aware of the emissions they were generating by driving, but without a compelling case for the practical and financial advantages of public transport, this knowledge was not sufficient to prompt a change in behaviour.



Figure 15: FirstBus campaign in Glasgow which focused on emissions (Participant submission)

A few participants in the group discussions were defensive on this issue and tended to point

out the use of “dirty” fuels in public transport, especially diesel for trains or buses. Highlighting the increasing prevalence of electric buses and trains could help to minimise deflection based on this point.

#### **4.4.4 Highlighting the ease of journey planning using digital tools**

This was a proposition which was tested as a way to highlight the convenience of modern public transport. Some of the desk review media examples focused on the ease of use of booking and planning software as a core part of their proposition (see Appendix A). Participants agreed that the widespread adoption of map and journey planning applications on smartphones had made planning easier. However, with almost all participants reporting a high level of familiarity with digital journey planning tools, messaging which focused on this did not present a new, compelling argument to revisit public transport.

Given the familiarity of map and journey planning applications, this was highlighted as one of the easiest and most accessible warm-up actions for public transport use. Participants therefore tended to feel this theme was better suited to being framed as a call to action, rather than a benefit of public transport.

## **4.5 How choice of messenger impacted on communications promoting driving less and using public transport**

### **4.5.1 Industry sources**

Although participants often reported low levels of trust towards prominent public transport brands, they remain a key messenger for information about the services they provide. In particular, there was appetite from participants to learn about any improvements to services, which would enable public transport brands to challenge the perception of unreliability, inconvenience and/or poor value for money.

Given the importance of leisure travel as a more achievable call to action for participants, there is also a role here for messengers from linked industries (e.g. hospitality, entertainment). These messengers can help to frame public transport as a default way to get to and from events, reinforcing the idea of leisure travel as a “soft launch” for driving less overall.

### **4.5.2 Influencers/social media**

This type of messenger stood out in the research as a particularly effective option for highlighting the benefits of public transport in a relatable way. The ability of influencers to add a human face and story as a framing device allowed them to circumvent cynicism about public transport. The use of vlogs and similar “real life” techniques helped to model the overarching target behaviour and allowed benefits to be highlighted as part of a lifestyle, with public transport framed as a positive choice.

### **4.5.3 Government**

As material improvements to services and pricing were the most effective framing for a challenge to negative attitudes, government sources are likely to play an important role in communications to encourage more use of public transport. Government messengers were credible sources of information and can help to amplify and highlight any positive stories

which have the potential to prompt a re-evaluation of the benefits of public transport.

#### **4.5.4 News sources/PR**

Trusted news sources can play a similar role to government, as a channel which allows people to be made aware of positive changes to the public transport offer. Given some participants' cynicism towards messages which came directly from public transport brands, using media outlets to amplify messaging also has the advantage of presenting information from a neutral third party.

## **4.6 How tone impacted on communications promoting driving less and using public transport**

### **4.6.1 Tones which were effective in promoting driving less and using public transport**

Communications seeking to take advantage of improvements to policy or infrastructure to challenge attitudes on public transport were best suited to a factual, straightforward tone. While projecting confidence was important, it was equally important to avoid relying on unqualified claims to minimise cynicism.

For less factual communications, such as social media influencer content, the most effective tone was approachable, confident and inspiring. The idea of trying something new with public transport was one of the most compelling ways to introduce leisure travel to participants. The approachable style used by travel vloggers helped to model the overarching target behaviour and associated warm-ups for the audience while also highlighting key benefits.

### **4.6.2 Tones which were less effective in promoting driving less and using public transport**

Some of the communications examples used humour to highlight the drawbacks of private car travel or the benefits of public transport. The response to this was mixed, and often the most cynical participants were the most dismissive of humour being used in this context. Overall findings indicated that a more matter-of-fact tone offered a less risky approach.

Another tone to avoid was over-confidence, especially when the messenger is a public transport provider. Given the tendency of participants to hold entrenched negative views, there was often a negative response to communications which represented the public transport experience in an idealised or unrealistically positive way.

## **5 Conclusions and actionable insights**

### **5.1 The role of communications in prompting action across the three behaviour sets**

#### **5.1.1 Moments of change are key drivers of action, rather than communications**

Across all three behaviour sets, the key finding which could underpin an effective

communications strategy is that moments of change and other external factors are the primary drivers of action. Often, communications alone were not sufficient to “bridge the gap” between intention and meaningful contemplation or warm-up actions for people who are concerned about the climate and have the means to take action. Insights showed that communications can play a key role in driving warm-up behaviours by priming the audience to contemplate the overarching behaviour ahead of the next crucial moment. Communications can also be employed to build positive attitudes and beliefs to support the idea that the overarching behaviours are sensible and practically and financially viable.

### **5.1.2 Communications should look to prime the audience ahead of moments of change, and support this by building positive attitudes**

In order to prime the audience ahead of moments of change, our findings indicate that communications should focus on driving social norms. Messaging should position the overarching behaviour as a desirable, everyday option that is being chosen by people across different segments of society. For both EVs and heat pumps, this means shifting the audience’s perception from seeing the overarching behaviour as a potential future norm, towards viewing it as part of the current norm. For the third behaviour set, negative attitudes towards public transport tend to be more entrenched. Communications encouraging driving less and using public transport more need to prompt the audience to re-evaluate their views. Findings indicated that the most effective ways to do this were to take advantage of positive changes to policy and infrastructure, and to encourage the audience to try swapping their car for public transport for one-off leisure journeys.

### **5.1.3 Reducing emissions was not motivating enough to present as a primary benefit in communications**

Although the sample reported a desire to do more for the climate, taking action to reduce carbon emissions was not a strong motivator of warm-up behaviours for these three big changes. Participants were all aware that gas or oil central heating and driving ICE vehicles were significant sources of carbon emissions. They also tended to be positive about the idea of doing more to reduce their emissions. However, practical and financial considerations, along with social norms, were much more effective in prompting consideration of the three behaviour sets.

There was some evidence from the group discussions and interviews that suggested climate benefits could serve as a co-benefit alongside more practical arguments. Messaging on climate benefits could also potentially reinforce the decision to switch to an EV, heat pump or public transport once it is already being strongly considered.

### **5.1.4 For heat pumps and EVs, the communications should focus on driving social norms and build positive attitudes towards the overarching target behaviours**

Both EVs and heat pumps represent infrequent, expensive purchases, which participants associated with the need for extensive personal research to avoid the consequences of making the wrong choice. With an audience who have a strong incentive to engage in warm-up behaviours ahead of their decision, the strategic goal should be to prime the audience, establish the warm-up behaviour as a valid option in each category in advance of the moments of change that prompt action.

The trigger for these warm-up behaviours tends to be a change in circumstance or other event which means the existing product or habit needs to be replaced, or which means that some of the major barriers to adoption are negated. Examples included reaching the end of a car lease agreement for EVs, or the breakdown of a current heating system for heat pumps.

Another important area of focus for communications on EVs or heat pumps should be around building positive attitudes and beliefs and increasing perceived behavioural control of the decision to purchase. This can be achieved primarily by focusing on financial and practical concerns, as these tended to be the strongest barriers to action. Heat pumps in particular were still not fully understood by many participants, which means educational or awareness-building communications will still be required. Similarly, effective communications should look to play a myth-busting role, as the infrequent nature of car and heating system purchases offers opportunities to challenge negative beliefs by highlighting where the offer has improved since the audience last researched the overarching behaviour.

### **5.1.5 For driving less and using public transport more, communications should focus on challenging existing negative attitudes to prompt a re-think**

Because the audience's attitudes towards public transport were more entrenched, findings indicated that communications to encourage the public to swap driving for public transport should focus on taking opportunities to challenge these attitudes. The most important opportunities to do so are presented by changes to the public transport offer which increase its appeal or contradict beliefs about low value for money, inconvenience or lack of service. In addition to a lack of positive attitudes, perceived behavioural control was often low for this audience, especially among those who believed public transport to be unaffordable or felt their area was under-served.

Participants tended to view driving as the norm and usually drove as a default way to travel for both commuting and leisure. As commuting habits were viewed by participants as much harder to change, supporting communications should look at focusing on leisure travel and one-off journeys. This presents a more achievable call to action and had the potential to encourage infrequent users of public transport to re-familiarise themselves, possibly reducing negative attitudes based on past experience in the process.

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## 7 Appendices

### Appendix A

## 8 Barriers and Motivators to the target climate behaviours

Tackling climate change depends heavily on changing human behaviour, as positive individual and collective action plays a major role in reducing harm to the environment. However, driving meaningful behaviour change in the context of climate change can be challenging. Climate-related actions can require immediate effort for long-term benefits, can feel overwhelming due to the vast scale of the crisis, and often involve changing longstanding habits/routines and social norms. Meanwhile, the negative impacts of climate change can feel distant and are easy to ignore – making it easy to postpone behaviour change. Understanding the underlying attitudes and social factors towards climate behaviours can help to bridge the gap between climate communication and climate action.

Below are the barriers and motivators found within the literature for the three separate target behaviours – installing a heat pump, buying an electric vehicle, and driving less and using public transport. Understanding the behavioural, psychological and emotional factors that drive and prohibit these climate behaviours will help us to develop communications to encourage people to take positive steps towards action.

### 8.1 Installing a heat pump

#### 8.1.1 Barriers

##### 8.1.1.1 Money and cost are the key barriers to retrofitting a home

Generally, it was found that many are worried about the upfront costs of making changes to their homes, while others believe that the running costs of an electric heating system will be too great (Department for BEIS, 2022; Chapman, O., Kapetaniou, C. and Gabriel, M., 2021). In a survey conducted by Nesta (2021), 52% are worried about the upfront costs and just under half of respondents (45%) said that upfront costs are more important than the running costs when considering making changes to their home (Chapman, O., Kapetaniou, C. and Gabriel, M., 2021). However, the recent rise in electricity costs compared to gas does cast some doubt for some, as to whether moving from gas to electric heat pumps would reduce bills (Chitchyan, R., 2025).

##### 8.1.1.2 Level of hassle/disruption of building work puts people off upgrading their heating system

If people are thinking about upgrading their property, they expect it to be time-consuming and disruptive, as such the ‘hassle-factor’ and inconvenience play a significant role in the low uptake of low-carbon heating technologies (LGA & The Behaviouralist, 2022 & IPPO, 2024). The hassle-factor of installing low-carbon heating is reduced at moments of disruption, such as renovations/refurbishments in the home and moving home (Behavioural Insights Team, 2012). These moments of change have been identified as ideal opportunities to encourage heat transition (The Behavioural Insights Team, 2023).

### **8.1.1.3 Individuals can be put off looking into the home heating due to the hassle of having to do the research and make decisions**

The effort required to research energy efficiency and green heating measures can put people off seriously thinking about upgrading their heating system (Chapman, O., Kapetaniou, C. and Gabriel, M., 2021). Additionally, a large proportion of people don't know where to start looking into energy efficiency measures and 34% of people surveyed strongly agreed that it would take a lot of effort to research and manage the installation of new energy efficiency measures (Chapman, O., Kapetaniou, C. and Gabriel, M., 2021). As such, this can be an obstacle to making decisions about installing new heating systems (Chapman, O., Kapetaniou, C. and Gabriel, M., 2021). With this in mind, several research reports have found that most people say they would only replace their heating system when their current one breaks down or becomes difficult to maintain (Caiger-Smith, D. and Amal, A., 2020 & Department for BEIS, 2022). This poses a potential opportunity to encourage a heating change, as an individual will be primed to carry out research and look into replacing their heating system. For those who are considering installing a heat pump, a simple research process is preferred such as a website with a list of links and grant information, a 'one stop shop', and a checklist of key points to consider for specific improvements (Chitchyan, R., 2025).

### **8.1.1.4 Uncertainty whether some types of homes are suitable for a heat pump**

For some, there is a general perception that it may not be possible to install a heat pump in their home (Department for BEIS, 2022; IPPO, 2024). This is a particular obstacle for flat owners, in which people in Scotland are significantly more likely to live in compared to the rest of the UK (Caiger-Smith, D. and Amal, A., 2020). In addition, a common reason cited for not installing a low-carbon heating system is a lack of space for a heat pump/water tank (Caiger-Smith, D. and Amal, A., 2020).

### **8.1.1.5 The familiarity of gas boilers deters some from switching to more unfamiliar technologies**

The perceived benefits of gas heating, such as reliability, convenience, and ease of use, are a deterrent for switching to low-carbon heating (Chapman, O., Kapetaniou, C. and Gabriel, M., 2021). Those without low-carbon heating systems are generally concerned about the cost and performance of these unfamiliar technologies and would prefer to opt for the familiarity and convenience of a gas boiler (Caiger-Smith, D. and Amal, A., 2020).

### **8.1.1.6 There is some scepticism about adopting new technology and a lack of knowledge about heat pumps**

Generally, recent evidence has shown that there remains a lack of knowledge and trust in heat pump technology, the installation process, and proposed benefits (E.ON, 2024). People lack understanding about how heat pumps work and some common misconceptions remain. Namely, that they take a long time to heat a home, they can only provide heating, not hot water, and cost more to run (E.ON, 2024). The importance of longevity and whether new heating systems will be 'fit for the future' and able to keep up and adapt to new technologies is also a concern for some (Beaglehole, J. and Patel, R., 2016). As such, there is a preference to wait and see how the technology develops over time (Beaglehole, J. and Patel, R., 2016). Additionally, there is scepticism about the supply chain being sufficiently

advanced to enable installation, maintenance, and general support to consumers (ARUP & Imperial College London, 2022).

#### **8.1.1.7 Some consider heat pumps noisy and ugly to live with**

A common concern with heat pumps is around noise, including concerns about noise within the home and whether the wider community could be affected by noise pollution (Beaglehole, J. and Patel, R., 2016). It is a common perception that heat pumps are noisy and due to their size, also not that attractive to look at (The Behavioural Insights Team, 2023; Caiger-Smith, D. and Amal, A., 2020).

#### **8.1.1.8 There is a lack of trust in reliability and independence of advice and providers**

When it comes to heat pump installation, a barrier cited frequently within the literature is the inconsistent or overly complex advice, along with low trust in information sources (IPPO, 2024). A consumer survey in Scotland conducted by the Energy Saving Trust suggests that the majority of Scots (65%) do not fully trust the UK Government, Scottish Government or local councils to give impartial advice, often believing that these institutions have hidden or mixed motives (Colley, K. & Craig, T. P., 2014). Furthermore, research conducted by The Energy Saving Trust (2010), found that energy suppliers are amongst the least trusted by the Scottish public, with less than 10% of Scottish households saying they trust energy suppliers.

### **8.1.2 Motivators**

#### **8.1.2.1 Saving money is a primary motivator**

Concerns about energy bills rising are a motivator for people to switch to a more energy efficient and cost-saving heating system (LGA & The Behaviouralist, 2022). Marketing efforts should focus on emphasising any economic savings, comfort benefits and environmental benefits of heat pumps, in that order (Sustainable Energy Authority of Ireland, 2020).

#### **8.1.2.2 Financial incentives may encourage a switch to low-carbon heating**

It was very apparent within much of the literature that money and cost are the main barriers for consumers to install low-carbon heating systems (Chapman, O., Kapetaniou, C. and Gabriel, M., 2021; Beaglehole, J. and Patel, R., 2016 & Colley, K. & Craig, T. P., 2014). Furthermore, upfront costs appear to be considered more important than running costs for the majority of people (Sustainable Energy Authority of Ireland, 2020). As such, incentives for people to switch to green energy (receiving subsidies and grants) can be motivating (Chapman, O., Kapetaniou, C. and Gabriel, M., 2021; Behavioural Insights Team, 2012).

#### **8.1.2.3 Warmth and comfort are key factors when considering heating systems**

Research has shown that, when choosing a heating system, people are less concerned about the long-term running costs and prioritise comfort, familiarity, and reliability (Sustainable Energy Authority of Ireland, 2020). Most consumers focus on the outcomes of a system rather than the system itself, i.e. a warm and comfortable home heated by a system that is easy to run and use (ARUP & Imperial College London, 2022). Additionally, flexibility has been cited as a key characteristic of a heating system; consumers say they want the ability to control the temperature (Beaglehole, J. and Patel, R., 2016; Energy Saving Trust, 2022; & Furtado, J., 2019).

#### **8.1.2.4 A desire to be energy efficient/protect the environment is a driver for low-carbon heating**

Many of those who have installed low-carbon heating already, have been motivated by environmental benefits in an attempt to make their home more environmentally friendly (Energy Saving Trust, 2022 & ARUP & Imperial College London, 2022). Consequently, the top motivators to install a low-carbon heating system relate to energy efficiency and the environment (Chapman, O., Kapetaniou, C. and Gabriel, M., 2021).

#### **8.1.2.5 Low-carbon technology can improve the value of homes**

Research conducted by Savills (2022) (the property firm) found that 59% said they would be willing to pay more for a home if at least 75% of a property's energy as powered by renewable sources. Further, analysis of average values of homes transacted between 2019 and 2021 shows that newer, cleaner methods of energy have a higher price tag. The same research found that properties utilising community heating schemes demand the highest average prices, followed by homes supplied by heat pumps, and homes that use oil. Property value has been found as a motivator for switching, where 58% of landlords and 36% of homeowners would invest in a heating system that would increase the house price (Sanders, J., 2025)

#### **8.1.2.6 Visibility of others adopting the technology can be a motivator**

The uptake of unfamiliar technologies is usually relatively slow as they are perceived as complex. Carmichael (2019) suggests that peer effects and observing others using this technology or being able to test the technology before investing in it could improve public uncertainty and increase adoption (Carmichael, R., 2019). This allows for better visibility of the costs, benefits, and relative advantages for the consumers' own home. As such, evidence has shown that peer influence in local communities can encourage more homeowners to retrofit their homes (SEAI Behavioural Economics Unit, 2020).

## **8.2 Buying an electric vehicle**

### **8.2.1 Barriers**

#### **8.2.1.1 Expensive upfront costs make purchasing an electric vehicle unrealistic for some**

EVs often have a higher purchase price than ICE vehicles, making purchasing an EV financially challenging for many. These financial barriers are felt more acutely in lower-income households (Pamidimukkala, A., et al., 2024). Interestingly, a YouGov poll found that EV hesitant high-income British consumers are even more likely than average to see the high upfront cost as a deterrent (60%) (YouGov, 2024).

#### **8.2.1.2 The perceived lack of public charging availability and infrastructure can be a barrier**

One of the most frequently cited barriers globally is the lack of, or perceived lack of, sufficiently available public charging stations for electric vehicles (EVs) (Pamidimukkala, A., Solovyev, V., Prabhakar, A., Kermanshachi, S., & Ghosh, S., 2024; Consumer Scotland., 2024). Evidence shows that this is especially apparent in less affluent areas, where infrastructure for electric vehicles is disproportionately unavailable to those living in these areas (Pamidimukkala, A., et al., 2024). Limited access to charging stations reduces public

confidence in their ability to use an electric vehicle as flexibly and easily as a non-electric vehicle.

### **8.2.1.3 Domestic charging points are often not an option leading to higher charging expenses**

The above point, re public charging points, is compounded by the fact that a large proportion of the population would theoretically have to rely on public charging points as domestic charging points are simply not an option for many. It is illegal to run a charging cable along a pavement, meaning only those with driveways or other off-street parking can use domestic charging (Stonehaven, 2025). Additionally, public charging points tend to be significantly more expensive than charging an electric car at home, making electric vehicles less feasible for those in lower socioeconomic groups. Many believe it only makes sense to own an electric car if they had access to cheaper at-home charging stations (Krishna, G., 2021; Consumer Scotland., 2024).

### **8.2.1.4 The perceived hassle of owning an EV – driving distance and charging times - compared to a standard petrol car**

The limited driving distance of EVs is a common barrier to adoption. Compared to ICE vehicles, most EVs have a shorter driving range, which can lead to concerns or anxiety among potential consumers about the impact on their flexibility and the need to plan ahead for driving longer distances, at risk of being stranded somewhere without charge (Pamidimukkala, A., et al., 2024). In addition to this, many are put off the idea of an EV due to the length of time it takes to charge. As the process of charging an EV is more time-consuming compared to refuelling a more conventional vehicle, the hassle-factor associated with this can be a barrier to adoption (Krishna, G., 2021; Pamidimukkala, A., et al., 2024).

### **8.2.1.5 Some experience resistance to adopting new/unfamiliar technology or innovations**

There continues to be a reliance on ICE vehicles and the familiarity with the technology. Innovation resistance theory explains the resistance some people feel around adopting new innovative products, services, and technology. People can intentionally refrain from adopting new technologies or products in order to maintain familiarity (Xue, Y., Zhang, X., Zhang, Y., & Luo, E., 2024; Saleh, H. N., Maupa, H., Cokki, Sadat, A. M., 2025). In the context of EV adoption, some of the barriers discussed above, such as concerns over driving range and charging infrastructure contribute to this feeling of discomfort around adopting the new technology.

## **8.2.2 Motivators**

### **8.2.2.1 The availability of financial incentives and support can motivate an EV purchase**

Financial incentives are one of the key motivators for EV adoption. Purchase subsidies have been found to be one of the most motivating factors for EV adoption among consumers across numerous countries. Similarly, tax reductions, such as road tax exemptions can also be a motivating factor (Pamidimukkala, A., et al., 2024; Consumer Scotland., 2024).

### **8.2.2.2 Many are motivated by the lower running costs of EVs**

Despite the higher purchase rate, the costs of running an EV are cheaper than that of ICE

vehicles. Subsequently, the lower running costs have been found to be the most popular reason for going electric, according to a YouGov poll (YouGov, 2025). The same poll also found the cost of fuel to be highly impactful in people's decision to purchase an EV.

### **8.2.2.3 The reduction in air pollution by purchasing an EV is a motivator**

One of the most frequently cited motivators for purchasing an EV is the environmental benefits, and reduced local emissions compared to petrol/diesel cars (Pamidimukkala, A., et al., 2024; YouGov, 2025). Consumers concerned about climate change and motivated by environmental values are more inclined to choose EVs over more conventional vehicles (Naseri, H., Waygood, E.O.D., Patterson, Z., & Wang, B. 2024).

### **8.2.2.4 Having access to the infrastructure needed for an EV makes the decision to purchase one more straightforward**

For those with the appropriate means, situational factors such as the availability of home charging stations, off-street parking, or nearby public charging infrastructure can act as motivators (Consumer Scotland., 2024). While stability and ease of use in every-day environments increases adoption likelihood (Pamidimukkala, A., et al., 2024).

### **8.2.2.5 Social norms and exposure effects of knowing people with an EV can increase familiarity and normality**

To overcome resistance to the unfamiliar technology, or those who are more hesitant to switch to an EV, increasing visibility or familiarity with EVs through community charging hubs or car-sharing programmes have been found to foster normalisation and uptake (Pamidimukkala, A., et al., 2024). Previous experience of driving an EV increases the likelihood of preferences for EVs (Naseri, H. et al., 2024; Saleh, H. N., Maupa, H., Cokki, Sadat, A. M., 2025). Furthermore, knowing someone with an EV, e.g. friends or family, can be a motivating factor as it increases the familiarity with the new technology. This can reduce apprehensions around some of the barriers identified such as driving range and charging time.

## **8.3 Driving less and switching to public transport**

### **8.3.1 Barriers**

#### **8.3.1.1 Driving can be a largely habitual behaviour for some that can be challenging to break**

Due to its convenience, driving can be a habitual behaviour. Using the car for routine journeys tends to be an ingrained habit that can be difficult to change, as people don't tend to think about their routine/partly sub-conscious behaviours. Additionally, research has shown that people who use the car frequently tend to neglect alternatives modes of travel (Ramos, É. M. S., Bergstad, C. J., & Nässén, J., 2020).

#### **8.3.1.2 The perceived low cost of a car day-to-day can be a motivator to use compared to public transport**

Although people are aware that owning a vehicle is expensive, the day-to-day costs of running a car are usually absorbed into regular outgoings. As such, some feel that using a

car on a daily basis feels free, especially when travelling short distances where a tank of petrol can last for a long time (Possible, 2022). The rising cost of public transport on the other hand, can be a deterrent. Research commissioned by Campaign for Better Transport found that 97% of drivers want cheaper rail fares (Campaign for Better Transport, 2023) and in a separate survey, that 71% of people said cheaper train fares would make them more likely to travel by train Campaign for Better Transport, 2025).

### **8.3.1.3 Public transport can be unreliable and more of a hassle to use compared to cars**

Public transport can be much more unreliable, compared to other methods of transport, making using public transport less convenient and harder to rely on for many (Scottish Centre for Social Research, 2010). For example, many have experienced delays and cancellations when using the train and the timings not always convenient (Possible, 2022). Other hassle-factors involved in using public transport such as route planning where individuals need to know the stop to get off at and the timing of either the bus/train, and can also put people off, opting for the ease and familiarity of the car.

### **8.3.1.4 Cars can feel safer, comfortable and more convenient than public or other modes of transport**

Although people are aware of the risks of driving a car, the safety of a car was especially felt after dark by women and for those with children, where public transport can feel less safe (Possible, 2022). Research has shown that women often list safety concerns as a barrier using public transport (Consumer Scotland, 2024). The convenience of a car is also a strong barrier to switching to public transport for some journeys – as distances increase, public transport becomes less convenient and more time-consuming (Rasca, S. & Saeed, N., 2022). The perceived reliability and convenience of being able to use a car whenever necessary, with little thought is a key reason people use a car over other means of travel (Possible, 2022). Overall, many feel that having a car saves them time and makes life generally easier as it allows people to predict journey times more accurately and travel whenever needed. For those with babies or young children, a car is a safe space which can be used for napping, breastfeed, and managing the logistics of travel with essential items such as prams, and changing bags (Possible, 2022). The refuge of a car can feel important, compared to busy buses or trains.

## **8.3.2 Motivators**

### **8.3.2.1 Taking public transport can make commuting less stressful and more relaxing**

For many, experiences of unsafe driving from other drivers, congestion, and unexpected diversions can make travelling by car a stressful experience (Possible, 2022). Studies have found that car commuters find their journey more stressful than any other mode of transport (Gatersleben, B. & Uzzell, D., 2007). Evidence shows that taking public transport is significantly less stressful, second only to active modes of travel (Gatersleben, B. & Uzzell, D., 2007). Taking public transport frees up time for other activities such as reading a book, working, or just relaxing. In addition, in many areas, public transport can also be the quicker option with fast-track lanes for buses and quick trains, avoiding traffic and congestion.

### **8.3.2.2 Owning a vehicle is more expensive overall than travelling by public transport regularly**

Ultimately, owning a vehicle is expensive, and although driving can feel free on a day-to-day basis, the cost of owning a car does add up when including petrol, insurance, tax, monthly payments, parking etc. Public transport costs significantly less than owning and operating a car. Going Car Free (Possible, 2022) is a study which followed ten people who trialled going car free for three weeks without significantly changing their routine and everyday commitments. The findings suggest that public awareness needs to be raised on how comparatively expensive car ownership is, alongside societal and environmental costs of private car ownership.

### **8.3.2.3 People can be motivated for environmental reasons to reduce their car use and opt for public transport**

Environmental concerns were not found to be a key motivator for switching to public transport. However, protecting the environment has been cited as a co-benefit to reducing car use and using public transport more frequently (Consumer Scotland, 2024). Evidence shows that the majority of Scottish consumers would like to reduce their carbon emissions by using more environmentally sustainable public transport methods, however face significant barriers to doing so, are unsure of how to do so, or are unconvinced that their behaviour changes could have an impact (Consumer Scotland, 2024).

## **9 Framing of target associated warm-up behaviours in public communications**

The below observations are taken from a selection of recent public-facing communications about each of the three target behaviours. Key messages are set out for each target behaviour alongside an analysis of the tone, call to action and choice of messenger.

### **9.1 Themes across all three behaviours**

#### **9.1.1 The urgency of earlier comms has been replaced by a lighter persuasive tone that emphasises personal choice**

In our 2020 analysis of communications on climate change, a major theme in the messaging from government, media and academic sources was urgency. Climate change was often framed as a “climate emergency” and parallels to the Covid-19 pandemic were used to advocate for immediate action to cut carbon emissions at scale (ClimateXChange, 2020).

The overall tone of the more recent communications reviewed as part of this paper contrasted with this. The reviewed communications typically present the benefits of target behaviours in a more neutral, factual tone. This less emotive tone lends itself to a more rational framing of choices, encouraging consumers to weigh up their options and make the right choice for them. While climate benefits are still very much part of the messaging toolkit, they are presented as one of many reasons to engage in target behaviours rather than an overriding urgent concern.

### **9.1.2 Climate benefits are often presented as a co-benefit, as communications focus on the practical or financial benefits of target behaviours at a personal level**

While the reviewed communications often included messaging on climate benefits, these were not typically presented as a primary reason to engage in a target behaviour. Instead, financial and practical benefits such as cost savings, convenience, and health benefits.

### **9.1.3 Comms often seek to create a sense of changing social norms, with high emission options being “phased out” and low emission technology growing in popularity**

A prevalent theme across communications for all three target behaviours was around changing social norms, with the target behaviour positioned as a future norm, in opposition to the outgoing high-emission option. This enables communications to frame behaviours which are currently the norm, such as buying an ICE vehicle ownership or gas boiler, as outdated in comparison. This tends to be supported by messaging around legislation, messaging which highlights new or improved technology associated with low-emission options, or messaging which points to increasing demand for low-emission options.

### **9.1.4 Messaging is often framed around prompting reconsideration, tackling pre-existing beliefs about the drawbacks of low carbon options, and/or highlighting the pain points associated with high emission choices**

Another common communication theme across each of the target behaviours was around prompting the audience to reconsider low-emission choices. Often, this took the form of myth-busting, with messages focusing on challenging beliefs about target behaviours which could pose a barrier (such as the belief that of EVs or heat pumps were more expensive to run than fossil-fuelled equivalents). There were also some communications which focused on emphasising the pain points and disadvantages of higher-emission choices, especially private ICE vehicle ownership.

## **9.2 Communications observations: Installing a heat pump**

Communications around heat pumps tended to include basic educational information in order to improve awareness and understanding of how the systems work. The messaging tended to be focused on mitigating financial and practical barriers, and on enhancing the appeal of motivators such as financial support and reliable performance.

### **9.2.1 Barriers addressed by communications**

- Lack of consumer understanding about heat pumps (e.g. air source vs ground source, suitability for climate)
- Up-front cost of installation is high
- Gas boilers may still be cheaper to run due to electricity prices
- Process (determining whether a heat pump is the right option, applying for grants, additional home upgrades may be needed) seems long and complex

### **9.2.2 Motivators addressed by communications**

- Financial support is available from the government to help with installation costs

- Heat pumps have very high rates of customer satisfaction
- With the right tariff, heat pumps can be cheaper to run than fossil-fuelled systems
- Some heat pump manufacturers can handle the whole process from start to finish
- Heat pumps are very energy-efficient, and have no direct carbon emissions

### 9.2.3 Communications on heat pumps are still looking to educate the public on the basics of the technology

Communications from government (UK Government, 2025), manufacturers (Octopus Energy, 2025) and consumer advice organisations (Money Saving Expert, 2025) were often presented as a primer or beginner's guide. In addition to highlighting the benefits, information online often opened by offering a basic explanation of the technology, including types of heat pump system, how they work, and why they are considered to be a more climate-friendly option. An element of myth-busting is often present, challenging misinformation which makes heat pumps seem less attractive. For example, the belief that they are unsuitable for winter weather in Scotland.

In comparison to communications about electric vehicles, which tended to assume more knowledge on the part of the audience, this indicates that educating potential owners is still a priority for these information sources. Often, interactive tools were presented as part of this, as a way to simplify the process of learning whether a heat pump would be suitable for the audience's home.

### 9.2.4 Financial support from government remains a key message to promote heat pumps

One of the core messages which was used to promote heat pumps across all reviewed sources was the availability of significant support from the UK and/or Scottish government, in the form of grants or interest-free loans. Eligibility for these financial incentives is often presented as a key factor to consider when exploring whether to install a heat pump at home, and as a major benefit to acting on an intention to install. This messaging is often framed as a counter to the high up-front costs of installation, which can otherwise be a barrier to further action.

A recent national news article from the BBC explicitly linked the UK Boiler Upgrade Scheme (BUS) to a large increase in demand for heat pumps nationwide (BBC, 2025). This also enabled the story to present heat pumps as a potential future norm, with demand increasing year on year.



Figure 16: BBC News article headline highlighting high uptake of the UK Government heat pump grant

### 9.2.5 Messaging around cost savings is prevalent, with pro-heat pump sources re-framing this as including maintenance

The other main financial incentive presented in communications is around running costs. While some sources acknowledge that current energy prices mean utility savings potential may be limited, messaging on the benefits of heat pumps often highlights potential for savings versus older and less efficient systems.

Consumer information provider Money Saving Expert created web content encouraging readers to compare the cost of running a heat pump against a range of other options, highlighting that older models of boiler and other heat sources like electric storage heaters, LPG and oil boilers may be more expensive to run (Money Saving Expert, 2025).

### 9.2.6 Switching to a heat pump is often presented as a high involvement decision in communications

Communications on heat pumps tend to present the decision to switch to a heat pump as a highly involved process which requires multiple factors to be weighed up. The key factors mentioned are typically suitability of the building itself, the type of heating system currently installed, age and specifications of radiators and water tanks, and eligibility for funding support.

Online content often features quizzes, checklists or interactive tools intended to streamline this process. These online tools are a warm-up behaviour which features frequently as a call to action. (UK Government, 2025)

One large UK manufacturer has made reducing the administrative burden of heat transition a key part of their messaging.



Figure 18: Octopus Energy promotional communications

The energy supplier Octopus has recently entered the heat pump market with an “all in one” product/service offer (Octopus Energy, 2025). A prominent message in their promotional communications has been around the lack of third-party involvement in the process, with the manufacturer providing survey, design, installation and also offering to apply for funding support on behalf of the customer. This core communications proposition may be worth exploring further with research participants as the time cost of the decision-making and administrative process involved in getting a heat pump has been identified as a potential barrier.

### 9.2.7 Some communications are making use of “real people” as messengers, inviting their audience to hear from lived experience

#### Check if a heat pump could be suitable for you

Find out if a heat pump could be a suitable choice of central heating system before you install one.

You'll need to give the following information about your home:

- whether it's in England, Scotland, Wales or Northern Ireland
- what type of heating system it has (for example, gas or electric)
- how many bedrooms it has

This service will compare the cost and carbon emission savings available to you and what you'll need to install a heat pump.

[Start now >](#)

Figure 17: gov.uk heat pump suitability checker

Both the UK government and Nesta have opted to use people who already own a heat pump as messengers for some of their communications. The UK Government’s energy efficient home campaign features video and text-based testimonials from heat pump owners with different housing types and lifestyles speaking about how they made their decision and speaking positively about the installation process and experience of living with the new system (UK Government 2025a). Nesta have taken a more grassroots approach to peer messengers, setting up a service which connects people considering a heat pump with nearby people who already have one (Nesta 2025). This enables local people to act as champions for heat pump systems.

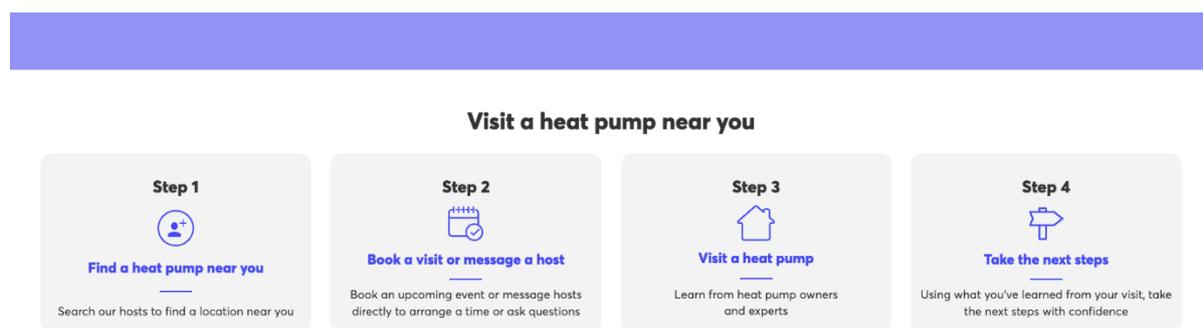


Figure 19: Nesta heat pump visit process

Both of these approaches help to build a sense of social norm, by making the behaviour more visible to those who are considering it. Visiting in person, or seeing video content of homes with heat pumps, is aimed at boosting familiarity with the technology to enhance motivation.

### 9.2.8 Narratives around consumer satisfaction are being highlighted to emphasise the positives

Data from heat pump owners has suggested higher rates of consumer satisfaction in comparison to gas boilers (MCS Foundation, 2025). This has enabled a narrative around consumer satisfaction to be presented in communications, such as the UK Government’s “Warm and fuzzy” campaign (UK Government, 2025). This narrative combines benefits such as reliability, cost savings and low emissions to present heat pumps as an attractive option.

### 9.2.9 Climate benefits of heat pumps are often de-emphasised in communications

While reduced emissions versus older fossil-fuelled systems are still frequently mentioned across reviewed sources, this is seldom presented as the core benefit of installing a heat pump. Instead, more practical, individual benefits such as cost savings, financial support, and reliable heat generation tend to be highlighted as key messages. Overall, this feeds into the wider framing of heat pump installation as an involved, rational decision which requires a range of factors to be considered, rather than a more emotional choice based on the urgent need for climate action.

### 9.2.10 Calls to action

The calls to action for heat pump communications tended to focus on warm-up behaviours, typically those linked to information gathering rather than more practical actions such as

booking a survey visit.

- Explore financial incentives like grants and interest-free loans from the government
- Use an online quiz to find out how much it could cost to install a heat pump in your home
- Find a local tradesperson who can give you an installation quote
- Find out if your home is ready for a heat pump, or if other steps (like insulation or radiator upgrades) need to be taken first
- Use a service that lets you arrange a visit with someone near you who has a heat pump to ask questions first-hand
- Compare energy tariffs to see whether switching away from gas could save you money
- Watch video content of people who own a heat pump to see what their experience was like

### 9.3 Communications observations: Buying an electric vehicle

Electric vehicle communications tended to position EVs as modern and innovative. Messaging often sought to address barriers which were linked to the performance of older models (such as the perception of limited range), and to present EVs as a “norm in waiting” that was rapidly replacing ICE vehicles.

#### 9.3.1 Barriers addressed by communications

- EVs still perceived as an expensive luxury item
- Range of EVs can be seen as too short for people who drive longer distances, or who commute every day
- Charging infrastructure for EVs is still developing

#### 9.3.2 Motivators addressed by communications

- EVs are quiet and offer a great driving experience
- EVs are modern and innovative
- Many EVs come with extra entertainment and safety features
- With the right electricity tariff, home charging can be cheaper than running a petrol/diesel car
- Financial support is available from the government and industry to subsidise home charging
- Some makes and models of EVs are now available at similar prices to a new ICE car

### 9.3.3 Some manufacturers are re-framing EVs as an affordable choice, rather than a luxury product

While luxury is still a prevalent theme in some promotional campaigns for EVs, it is typically associated with products at a higher price point, such as Tesla. However, some manufacturers who are more recent entries to the UK market appear keen to make value for money a key part of their proposition. MG launched a mid-sized fully electric SUV in 2022 with a campaign which presented their product as affordable and accessible, while still emphasising modern technology and features (M3 Agency, 2022). The campaign was built around the idea that “Electric is for everyone” with messaging which highlighted the price point, range, and features such as wireless phone charging. Similarly, Dacia’s communications promoting the Dacia Spring describe it as “Europe’s most affordable new electric car” (Dacia UK, 2024)



Figure 20: Advert for a new MG Electric Vehicle

### 9.3.4 Pro-EV sources are keen to challenge the belief that limited range is still a problem

The improved range of current-generation EVs is a prevalent theme in promotional communications from manufacturers and consumer organisations. Communications tend to mention the range a car can cover on a single charge. Often, prospective buyers are encouraged to consider their daily or weekly driving habits, with the message that an EV will often be able to cover a typical week of driving with a single battery charge.

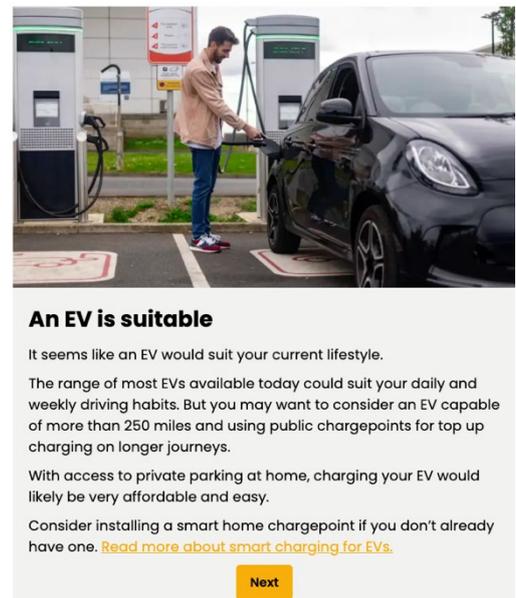


Figure 21: Which? EV quiz results (2025)

An example from Energy Saving Trust, an organisation focused on supporting energy efficient decisions to reduce emissions, uses an interactive online quiz to help potential EV owners to consider key factors before making a purchase. The quiz offers tailored messaging to users. Even if the largest possible values for weekday (over 25 miles per day) and weekend (over 200 miles) driving distance are input, the message is still that modern EVs have sufficient range to be a good fit (Energy Saving Trust, 2025)

### 9.3.5 Framing EVs as an incoming norm is a common promotional message

Manufacturer communications often frame EVs as being innovative and technologically advanced. Often, this is part of a wider framing which positions EVs as a new norm which is replacing the existing norm of ICE vehicles. Online promotional communications from the EV

manufacturer Cupra frequently emphasise the growth of the electric car sector (Cupra UK 2025). The technology behind the vehicles is described as constantly improving, alongside the associated infrastructure.

### **9.3.6 Comparing maintenance costs between ICE and EVs is often positioned as a factor in decision-making**

Pro-EV sources often make the claim that due to the reduced number of moving parts, EVs are often cheaper to maintain and repair than their ICE counterparts (Volkswagen Ireland 2025). While more neutral sources such as consumer organisations have questioned this claim, the overall effect is to encourage potential EV owners to consider the difference in maintenance needs versus an ICE car (Which?, 2025).

### **9.3.7 Communication on EVs often focuses on availability of charging infrastructure as key to making a purchase decision**

Another key factor which is commonly presented as an essential part of the decision between EVs, and other options is access to charging infrastructure. Consumer guide Which? published an FAQ-style online guide for people who were considering purchasing an EV. The guide recommends charging at home or at work, if possible, due to the convenience and potential cost savings, and points out that relying on public charging points may be costlier than refuelling a petrol-powered car.

EV manufacturers such as Volkswagen also tend to present charging infrastructure as an important consideration. The landing page for EVs made by Volkswagen in Ireland offers a digital route planner tool which allows potential customers to visualise the availability of charging points on familiar journeys (Volkswagen Ireland, 2025). This tool helps to increase perceived behavioural control by enabling users to plan out how an EV would fit into their lifestyle before committing further.

### **9.3.8 Quiet/smooth running is positioned as a key advantage over ICE vehicles**

EV manufacturers often highlight the fact EVs offer a less noisy or “smoother” driving experience in comparison to ICE vehicles, due to the lack of engine noise and automatic transmission (Cupra UK, 2025) (Tesla, 2025).

#### **Smooth, Quiet Driving**

With no internal combustion engine noise, the quiet and smooth drive of a CUPRA electric car is one of its most appealing features. Electric motors provide instant torque, delivering a powerful and responsive driving experience that traditional vehicles simply can't match.

Figure 22: Description of EVs being smoother and quieter than traditional vehicles

### **9.3.9 Some communications are making use of “real people” as messengers, inviting their audience to hear from lived experience**

Some EV manufacturers make use of a more authentic messenger by using real customers as spokespeople. Volkswagen UK’s “Your Volkswagen Stories” is an interactive online promotional campaign which features 14 video case studies from UK customers who chose an EV (Volkswagen UK, 2025). The choice of messenger reflects a diverse mix of lifestyles

and stages (such as families with multiple children or a retired couple).

The campaign often includes a narrative of sceptical people being pleasantly surprised by the performance and overall driving experience of owning an EV. One example features an older couple based in Argyll and focuses on reliability and range as key selling points, for people travelling to and from rural areas. This framing enables EVs to be presented as a credible solution for a variety of audience segments who may be less likely to consider one.

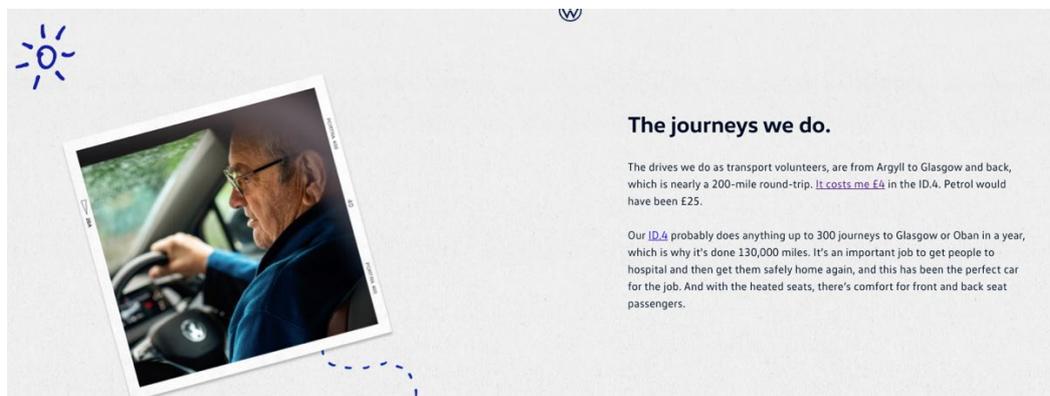


Figure 23: An example of Volkswagen UK's "Your Volkswagen Stories"

### 9.3.10 Climate benefits of EV ownership are often de-emphasised in communications

While communications about EVs frequently mention climate benefits such as zero direct carbon emissions, these are typically presented as a co-benefit, with performance, range, running costs, reliability and extra features more likely to be the primary focus of persuasive messaging. Often "above the line" communications such as advertising omit climate change messaging altogether. TV/digital advertising for Tesla (2025) and MG (2022) neglected to mention emissions or climate benefits entirely, positioning their products as a sensible choice for consumers rather than an environmental necessity.

### 9.3.11 Calls to action

EV manufacturers tended to focus on booking test drives or planning behaviours (such as interactive maps of charging stations). Consumer information sources were more likely to signpost to further information instead, or to direct the audience to interactive tools to guide them through the decision-making process.

- Book a test drive of an EV
- Take an interactive quiz to see if an EV is right for you
- Use an online route planner to explore charging stations along your typical driving routes
- Explore different models and specifications of EV to see which works best for you
- Use a calculator tool to see whether an EV would be cheaper to run than an ICE vehicle
- Explore financial incentives, like salary sacrifice schemes or grants to install home charging
- Watch video content of people who own an EV to see what their experience was like

## 9.4 Communications observations: driving less and using public transport

Communications looking to encourage less driving and greater uptake of alternatives like public transport often focused on re-framing driving. Existing beliefs about the convenience and freedom of private car use are challenged, while communications also highlight practical advantages of alternatives.

### 9.4.1 Barriers addressed by communications

- Private car use is perceived as offering personal freedom compared to sharing space on public transport
- Private car use can be convenient as it enables door-to-door travel
- Some people may not be able to access public transport easily
- Driving may be quicker than alternatives
- Public transport may be seen as cheaper than fuel costs for driving, especially on a journey-by-journey basis

### 9.4.2 Motivators addressed by communications

- When maintenance, parking and fuel are factored in, public transport is often cheaper than driving over a longer period of time
- As a passenger on public transport, you have free time to do whatever you like, instead of focusing on driving
- Public transport can get passengers straight into town and city centres quickly and efficiently
- Using public transport avoids the stresses associated with driving, like aggressive drivers and traffic jams
- Multi-modal transport can help reduce the amount you drive and reduce geographic barriers
- Active travel instead of driving has health and wellbeing benefits

### 9.4.3 Messaging often sought to challenge the belief that private car travel offers more personal freedom than public transport

A common theme in public transport promotional communications is around deconstructing the belief that travelling in a private car allows more personal freedom than shared travel options. Messaging may point out how certain aspects of private car travel which can limit personal freedom (such as having to concentrate on driving for the entire journey or having to find and pay for parking) have been normalised. The audience is prompted to consider whether an option such as bus or train travel could give them more control over how they choose to spend their journey.

Rail operators such as ScotRail (2025) and LNER (2024) have both focused on “freedom” as a theme in recent advertising campaigns targeting both commuters and leisure travellers. Both campaigns highlight the ways rail travellers can choose to use their journey time for work or leisure.

<https://www.youtube.com/watch?v=TuWoS2PidL4>

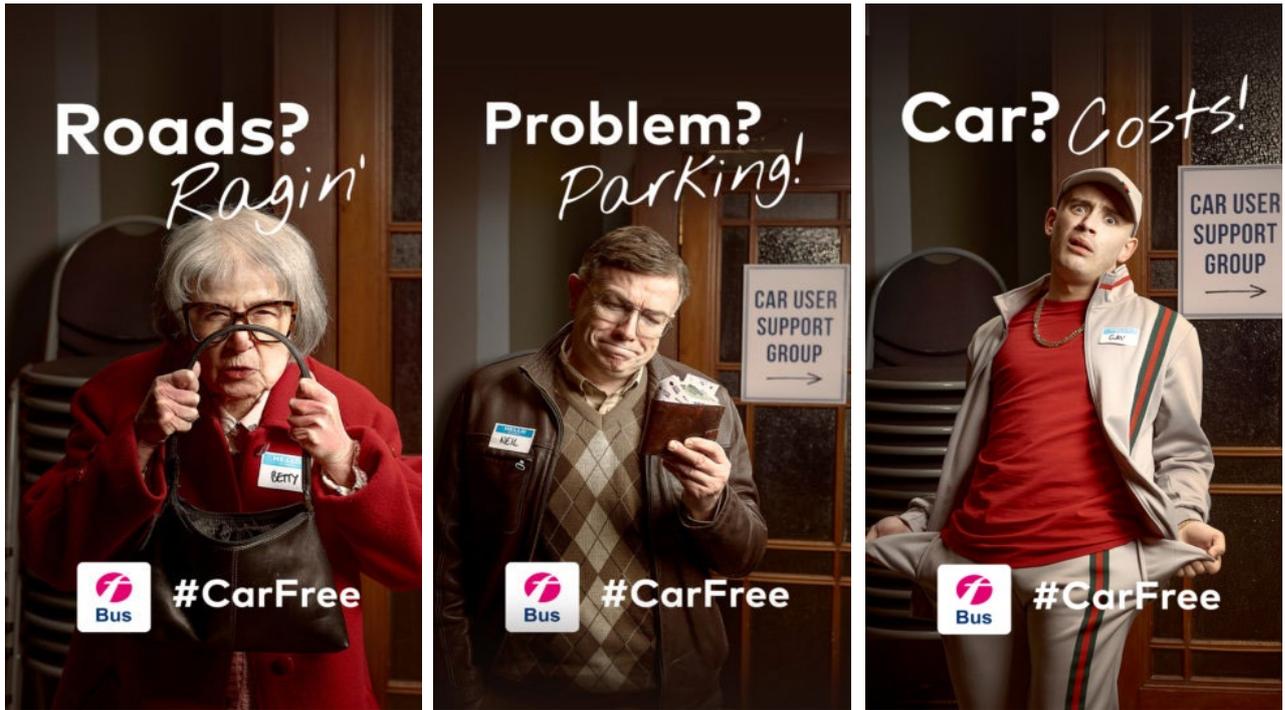


Figure 24: FirstBus #CarFree campaign materials

FirstBus (2024) ran a multimedia campaign in Glasgow which challenged the normalisation of private car travel with a creative concept based on a support group for “car addicts”. The campaign used humour to highlight the normalisation of negative aspects of driving, including expensive parking, road rage and high carbon emissions.

#### 9.4.4 Messaging on cost encouraged drivers to consider wider costs of car ownership and longer periods of time

Public transport campaigns encouraged consumers to consider the savings offered by public transport over multiple journeys. ScotRail (2025) highlighted multi-journey savings, while FirstBus (2024) encouraged their audience to factor in other costs of driving, such as repairs, maintenance and parking, when comparing with public transport.

#### 9.4.5 Public transport was often presented as a convenient option with direct access to city centres

Another frequent core communications proposition which enables public transport to be compared favourably to private car travel was convenience. Rail and bus operators highlight the frequency of services on major routes and the option to travel directly to town centres as an advantage (LNER, 2024) over both private car travel and flying.

#### 9.4.6 Highlighting the stress of driving was a common message aimed at commuters

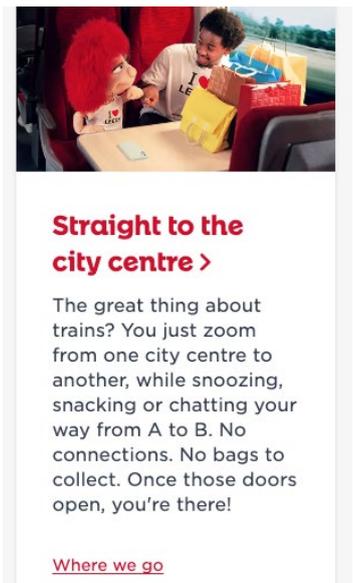


Figure 25: LNER promotional comms to choose the train

Related to the idea of challenging the perceived freedom of private car travel, this core communications proposition was focused more on the stresses of modern driving. Traffic delays and stressful encounters with other motorists are highlighted, with public transport presented as an alternative free from these issues. It encourages reflection on the stresses of driving and potentially primes the audience to consider a switch away from private car travel in future moments of stress. This core communications proposition featured in the ScotRail (2025), LNER (2024) and FirstBus (2024) campaigns.

#### 9.4.7 Active travel is promoted as an alternative to driving with additional health and wellbeing benefits

Choosing to walk, wheel or cycle instead of driving is frequently promoted using a health and wellbeing framing. Messaging focuses on the benefits of fitting in more physical activity to overall health as well as mood and mental health. Campaigns such as Transform Scotland’s “A Wee Walk Works Wonders” (Transform Scotland, 2024) often incorporate this type of health and wellbeing framing, alongside messaging around saving money and reducing emissions.

Evaluation of the campaign found that the messages which highlighted health benefits and the fact that only a brief walk can make an impact were more memorable to audiences. Just over 6 in 10 (63%) of evaluation respondents spontaneously remembered the health and wellbeing message, whereas around 1 in 10 (11%) remembered the messaging around benefits to the climate (JRS, 2024)

#### 9.4.8 Digital meetings are sometimes framed as an alternative to driving, which could prompt resistance to other target behaviours

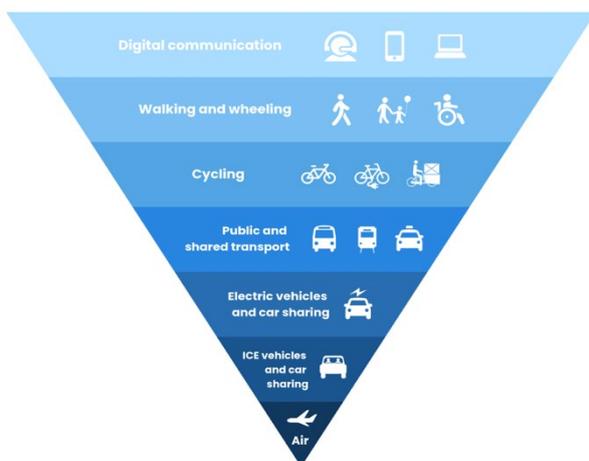


Figure 26: Active travel hierarchy from the Energy Savings Trust

Communications created by the Energy Saving Trust presents public transport and active travel as part of a hierarchy, with air travel and ICE vehicle travel as the most environmentally harmful (Energy Saving Trust, 2024). This notably includes digital communication (e.g. video calling) and presents this as being the least impactful option on the climate.

While the overall narrative supports public transport and active travel as sustainable choices, and their online content highlights benefits of both, the idea that digital communication is also an alternative to travelling in person could potentially lead to

online meetings or similar being viewed as competition to the target behaviour.

#### 9.4.9 Multi-modal transport is presented as a way to reduce emissions, save money and fit in additional exercise

Another messaging theme which can reduce perceived barriers to driving less is multi-modal transport (such as park and ride schemes). Messaging encourages people who usually drive

to explore ways to combine public transport, active travel and private car travel in order to reduce the amount of time they spend driving in favour of other options (Energy Saving Trust, 2024). This is presented as a way to mitigate geographic barriers (e.g. lack of access to public transport) as well as an option for those looking to try active travel without committing to long distances walking, wheeling or cycling.

#### 9.4.10 Calls to action

Communications promoting public transport as an alternative to private car travel were often more direct in their calls to action than EV or heat pump communications. Frequently the main call to action was simply to try using public transport.

- Try taking the train for leisure travel as well as commuting (or vice versa)
- Use a route planner to find out how easy it could be to get to work with alternate transport
- Compare pricing to find out whether public transport would be cheaper than driving (and parking) every day in a private car
- Consider what you might be able to do with the free time on your commute if you went by public transport instead

## Appendix B – Hypotheses – message themes/territories

The following tables contain the list of hypotheses associated with each of the three behaviour sets. Each theme represents a particular message or idea intended to prompt consideration or warm-up action on the overarching target behaviour. These were developed from the desk research findings (see Appendix A). They served as a checklist to ensure media examples being considered for use in stimulus covered a broad range of themes and messages, and were also used to underpin development of the discussion guides and homework tasks.

### Heat Pump

<b>Messages /comms themes FOR Getting a Heat Pump</b>	<b>Messages /comms themes AGAINST Getting a Heat Pump</b>
<ul style="list-style-type: none"> <li>• Saving money on heating bills</li> <li>• Financial incentives/ grants to switch to low-carbon heating</li> <li>• Quality of warmth and comfort from a heat pump</li> <li>• Reliability of heat pumps</li> <li>• Energy efficiency- protecting the environment through low-carbon heating</li> <li>• Low-carbon technology can improve the value of homes</li> <li>• Seeing that heat pumps are becoming more popular</li> <li>• Expecting gas heating to be phased out over the next few years</li> </ul>	<ul style="list-style-type: none"> <li>• Money and cost of the installation and retrofitting a home</li> <li>• Hassle/disruption of building work required</li> <li>• The hassle of having to do the research and make decisions</li> <li>• Being unsure if your home would be suitable for a heat pump</li> <li>• The familiarity of gas boilers over unfamiliar heat pumps- just don't know enough about heat pumps</li> <li>• Scepticism about adopting new technology and whether it will work as advertised</li> </ul>

<ul style="list-style-type: none"> <li>• Installers can take care of all necessary work- making it easy to get a heat pump</li> <li>• There are benefits for the environment</li> </ul>	<ul style="list-style-type: none"> <li>• Concerns about heat pumps being noisy and ugly</li> <li>• Lack of trust in reliability and independence of advice and providers</li> <li>• Concerns about the running costs compared to gas boilers</li> </ul>
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## Electric vehicles

<p><b>Messages /comms themes FOR Getting an Electric Vehicle</b></p> <ul style="list-style-type: none"> <li>• Financial incentives and support to buy an EV</li> <li>• The lower running and maintenance costs of EVs</li> <li>• Costs of EVs are coming down</li> <li>• The reduction in air pollution and helps the environment</li> <li>• Having clear access to the infrastructure needed for an EV</li> <li>• The range of EVs has improved a lot in recent years</li> <li>• Seeing that more and more people are getting EVs</li> <li>• Expecting petrol and diesel cars to be phased out over the next few years</li> </ul>	<p><b>Messages /comms themes AGAINST Getting an Electric vehicle</b></p> <ul style="list-style-type: none"> <li>• Expensive upfront costs</li> <li>• Lack of public charging availability</li> <li>• Domestic charging points are often not an option leading to higher charging expenses</li> <li>• Hassle of owning an EV – driving distance and charging times - compared to a standard petrol car</li> <li>• Nervousness about unfamiliar technology</li> </ul>
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## Public Transport More Car Less

<p><b>Messages /comms themes FOR Using Public Transport more and Your Car Less</b></p> <ul style="list-style-type: none"> <li>• Taking public transport can make travel (esp. in busy times) less stressful and more relaxing</li> <li>• Being able to make use of your journey time instead of having to concentrate on driving</li> <li>• With modern apps it is easier to plan journeys through public transport than ever</li> <li>• Scrapping of peak fares making rail travel cheaper at key times for commuting</li> </ul>	<p><b>Messages /comms themes AGAINST Using Public Transport more and Your Car Less</b></p> <ul style="list-style-type: none"> <li>• Difficulty of breaking the habit of using the car- as car is part of daily routine</li> <li>• Low cost of a car day-to-day</li> <li>• Justifying the upfront cost of a car by using it</li> <li>• Unreliability of public transport</li> <li>• Hassle of using public transport compared to cars</li> <li>• Cars feel more comfortable and more convenient than public transport</li> </ul>
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<ul style="list-style-type: none"><li>• Owning a vehicle is more expensive overall than travelling by public transport regularly</li><li>• Environmental reasons to reduce car use</li></ul>	
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## Appendix C – Methodology

ClimateXChange commissioned JRS to undertake this research. The work was split into four sequential phases:

1. **Desk Research** – reviewing existing evidence and communications encouraging people to take steps towards installing a heat pump, buying an EV, and/or using public transport more and driving less. This phase of the research was not conducted as a full academic literature review. It was a rapid evidence review that served to identify existing literature, evidence, and media and communications examples which could form the basis of the primary research. Particular focus was placed on:
  - Key barriers and motivating factors related to the key climate actions identified to prompt positive climate behaviours within similar audiences
  - Behavioural theories that help us to explain inaction to climate change and how these can be used to prompt change
  - The effect of different communications, i.e. what works and does not work to motivate positive climate action, looking at message framing and content

The resources were identified through discussion with the steering group and independent online searches. Online searches utilised Google Scholar for academic literature, and Google Search for media and messaging examples. The research team also had access to an existing bank of background materials accumulated over prior projects relating to communicating on climate change, and selected some sources for review directly from this. Scholar searches employed a range of climate change focussed search keywords/phrases including: ‘climate communications’, ‘climate action’, ‘intention-action gap’, ‘pluralistic ignorance’, ‘climate behaviours’, ‘climate action communication campaigns’, ‘climate action tipping points / moments of change’. Resources were drawn from current and recent (mostly from 2020 onwards) national and local Government publications and communications, research from academia, communications from third sector organisations, UK media articles, and communications / promotional material from organisations within the energy, car and transport industries.

An analysis framework was drawn up to identify key insights in relation to climate communication, messaging and framing and its impact on prompting people to take warm-up behaviours as the first steps toward larger changes in how they heat their homes and travel. The framework was populated using the following process:

1. Search conducted Google Scholar using selected keywords for academic sources. Compiled initial long list of media and communications examples using Google Search.
2. Supplementary sources were added from the research team’s existing bank of literature
3. Abstract and conclusions from each academic source were reviewed to filter out less relevant sources
4. Remaining academic sources were reviewed in depth to produce the final selection of 21

5. Final media and communications examples were selected based on relevance to insight from the selected academic sources

The findings were used to develop and refine a set of hypotheses about the potential effect of a range of message territories associated with of the core behavioural areas of focus. These provided a foundation for testing with research participants in the primary research (see Appendix A)

2. **Qualitative research** – to better understand consumer attitudes, beliefs and behaviours around the three target area behaviours and how communications can help encourage people to undertake warm-up actions / steps towards these target behaviours. A total of 6 online 90-minute group discussions took place, attended by 30 participants.

In the discussion groups, participants were asked to reflect on a range of past and current communications related to the three target behaviours, their attitudes towards these actions, what and where their moments of change would be for undertaking next steps/warm-up behaviours and the potential impact/efficacy of the hypotheses/ message territories developed from the desk research.

### Sample

The sample focussed on people who agree that it is important to take climate action; are willing to take more action than they currently do; and state that money or other practical barriers do not present a meaningful barrier to them taking more action.

Specifically, the groups were set up to ensure that all respondents:

- Had not seriously undertaken any of the core warm up behaviours in relation to one of the three core behaviours (installing a heat pump, buying an EV, and/or using public transport more and driving less)
- In each group, had not seriously undertaken any of the core warm up behaviours in relation to at least one of the other two core behaviours
- In this context, warm-up behaviours include:
  - Talking to friends/family/colleagues about the behaviour and or campaigns in relation to the relevant behaviour
  - Visiting relevant websites or comparison tools - either to take the relevant action or to determine if there is financial support available through government schemes in relation to the relevant behaviour
  - Doing further research on the topic of the relevant behaviour
  - Taking any other concrete steps towards the shift in behaviour

In addition to these behavioural aspects, the sample considered a mix of age, ethnicity, lifestyle and urban versus rural living.

<b>Group 1 - Heat pump</b>	<b>Group 2 - Heat pump</b>
- male/female mix	- male/female mix
- younger- 25-49yrs (pre kids/pre-teen kids only)	- older- 50-75yrs (teen or older kids/no kids/empty nester)
- all to qualify for heat pump discussion	- all to qualify for heat pump discussion

<ul style="list-style-type: none"> <li>- and to qualify for at least one of EV or drive less discussions</li> </ul> <p><b>Group 3 - EV</b></p> <ul style="list-style-type: none"> <li>- male/female mix</li> <li>- younger- 25-49yrs (pre kids/pre-teen kids only)</li> <li>- all to qualify for EV discussion</li> <li>- and to qualify for at least one of heat pump or drive less discussions</li> </ul> <p><b>Group 5 - Drive less/public transport more</b></p> <ul style="list-style-type: none"> <li>- male/female mix</li> <li>- younger- 25-49yrs (pre kids/pre-teen kids only)</li> <li>- all to qualify for drive less/pt more discussion</li> <li>- and to qualify for at least one of heat pump or EV discussions</li> </ul> <p><b>Inclusiveness across sample:</b></p> <ul style="list-style-type: none"> <li>- recruited from across Scotland- urban and rural (note- it is unlikely that the very rural parts of Scotland will be represented much)</li> <li>- include target 5 me respondents</li> </ul>	<ul style="list-style-type: none"> <li>- and to qualify for at least one of EV or drive less discussions</li> </ul> <p><b>Group 4 - EV</b></p> <ul style="list-style-type: none"> <li>- male/female mix</li> <li>- older- 50-75yrs (teen or older kids/no kids/empty nester)</li> <li>- all to qualify for EV discussion</li> <li>- and to qualify for at least one of heat pump or drive less discussions</li> </ul> <p><b>Group 6 - Drive less/public transport more</b></p> <ul style="list-style-type: none"> <li>- male/female mix</li> <li>- older- 50-75yrs (teen or older kids/no kids/empty nester)</li> <li>- all to qualify for drive less/pt more discussion</li> <li>- and to qualify for at least one of heat pump or EV discussions</li> </ul>
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### 3. A two-part homework task

Research participants from phase 2 were asked to:

- a. Reflect and think about what they'd been shown and discussed in the focus groups and how that made them think about the target and warm-up behaviours

Each group of participants were asked via an online survey -to reflect over a three-day period about the core behaviour sets/behaviours they had been discussing in their focus groups then fill out questions to probe their subsequent interest, desire, and motivation towards undertaking any next steps / warm up behaviours. The idea was that this would encourage respondents to stay at the moments of change created within the group discussions and to deeply consider relevant motivations and barriers at societal/collective; practical/rational; and individual emotional levels.

- b. Then, a week after the first task, respondents were asked to consider taking warm-up actions for two behaviour sets - again via an online survey – and record their experience and thoughts on:
  - i. what they might/would do as a result of these actions
  - ii. the associated communications and information encountered as part of the warm up actions
  - iii. other communication examples encouraging warm up/key behaviour actions.

This homework task was designed to probe the role and potential impact/ efficacy of communications / communication elements.

#### **4. In depth – 60 minute online - interviews with each of the research participants**

These probed in detail their reflections on the whole research process – on what works and what does not work in climate communications and other relevant marketing in connection with each behaviour and associated warm-up actions. The discussions looked specifically at messaging content and framing; tone, style, and imagery; and who are relevant, credible and trusted messengers.

There were 27 people who participated in the homework and depth interviews:

### **Analysis**

Client discussion and the findings from the desk review were used to develop:

- A set of hypotheses for each of the three core behavioural areas of focus. Each hypothesis consisted of a statement about the potential for a particular message or proposition to prompt contemplation or action
- The required discussion/topic guides, homework tasks and supporting stimulus material.

As each research phase progressed and moved to the next, the JRS research team followed a staged approach to analysis, with each moderator reviewing and analysing their own groups before coming together to discuss and synthesise findings.

#### **How was 'data' gathered from participant reflections analysed?**

- At both stages of homework, participants' notes were returned to JRS via an online survey platform, using WhatsApp or email
- These were then distributed to the relevant researcher who undertook the final stage depth interview with the participant
- From this, the individual JRS researchers supplemented their version of the hypotheses grid with insights gathered through the homework.
- The JRS research team then came together to share their learnings from the initial group discussions and the homework exercise. The central hypotheses grid was then updated by the project lead, with all insights gathered.
- This updated hypotheses grid was shared with the client team to provide the starting point for development of the topic guide and stimulus materials for use in the final stage of the primary research (depth interviews).

### **Use of Behavioural Theory**

Throughout the research process we used behavioural theory to help us reflect on and analyse our findings. We used the:

- Stages of Change Model (Prochaska & DiClemente, 1983) to help us think about where participants were on their journey to adopt a behaviour / undertake a warm-up action.
- Theory of Planned Behaviour (Ajzen, I., 1991) to understand how different potential communications and messaging would affect participant attitudes, subjective norm and perceived behavioural norms and therefore their intention / likelihood to adopt a behaviour / undertake a warm-up action.

See Appendix D for a full explanation.

### **Research limitations**

In the desk review, observations and insight were drawn from 21 resources. This was a short exercise to find and review relevant communications encouraging people to take steps towards installing a heat pump, buying an EV, and/or using public transport more and driving less. It was not a full literature review on the topic in question.

The qualitative methods delivered in the primary research offered in-depth insight into how individuals think and feel climate change actions and the role/impact of messaging and communications but with a sample of 30 participants it cannot tell us how many other people in the population feel or think in these ways.

Also, we were aware and recognised in running the follow-up depths and subsequent analysis that for the homework tasks the fact that the whole research exercise was about considering a range of warm-up behaviours will have influenced participant behaviours to a degree i.e. encountered the Hawthorne effect.

**All the research adhered to UK GDPR legislation and the Market Research Society Code of Conduct.**

## **Appendix D – Use of behavioural theory**

**Stage of Change Model - A model for mapping behaviour change as a process**

The Stages of Change Model (Prochaska & DiClemente, 1983), also known as the Transtheoretical Model, describes stages of behaviour change including: Pre-contemplation (not ready to change), Contemplation (considering change), Preparation (planning to change), Action (making changes), Maintenance (sustaining change), and Termination (no longer tempted). This model recognises that change is a process, not an event, and different strategies are effective at each stage.

**In our research:**

- This proved to be useful in thinking about where people were at in terms of adopting a behaviour / undertaking warm up actions
- Often, respondents were at the pre-contemplation stage, where they don't see a need to do anything differently
- The Action stage would be getting a heat pump, EV or changing your travel habits to drive less
- Preparation is where the warm-up behaviours take place
- For the purposes of this project, we focussed on the first three stages in particular.

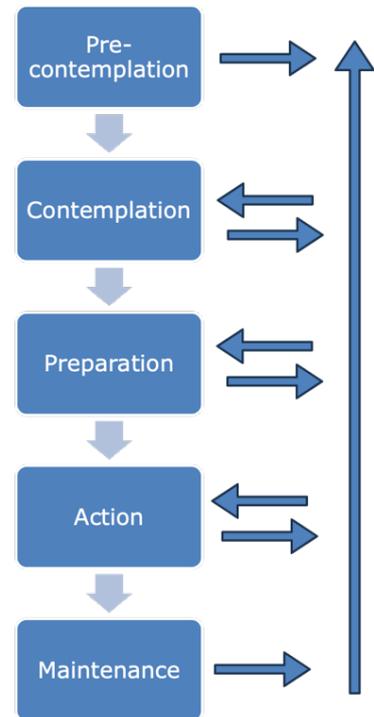


Figure 27: The Stages of Change Model (Prochaska & DiClemente, 1983)

**Theory of Planned behaviour - How we unpicked the impact of communications on intention and action**

The theory of planned behaviour (Ajzen, I., 1991), outlines three key variables that affect people's attitude-behaviour relationship:

1. The attitude toward the behaviour (the stronger the better)
2. Subjective norms (the support of those we value)
3. Perceived behavioural control (the extent to which we believe we can actually perform the behaviour).

These three factors jointly predict our intention to perform the behaviour, which in turn predicts our actual behaviour.

**In our research:**

- For each communications hypothesis/theme, we looked at how these affected:
  - Attitudes and beliefs about the primary behaviour (Heat pumps/EVs/drive less)
  - Subjective norms associated with the primary behaviour
  - Perceived behavioural control
- Challenging negative attitudes and building positive ones was a recurring theme throughout

- Subjective norms are crucial. This was where pluralistic ignorance applied – where people believe others not to be taking action at scale
- Notably, although we recruited participants based on the absence of practical/financial barriers, perceived behavioural control was often lower.

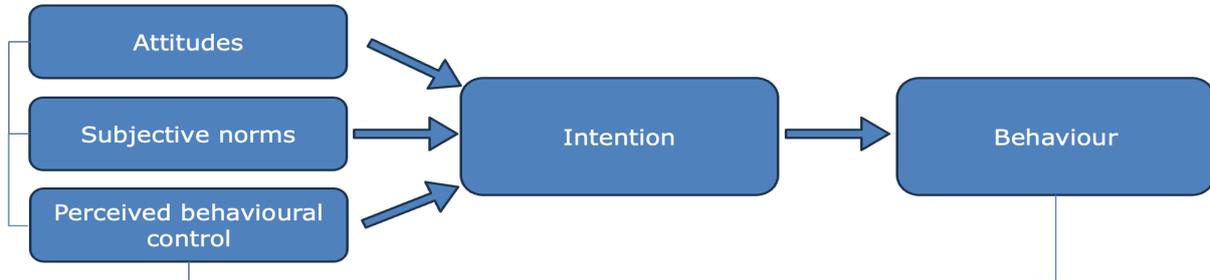


Figure 28: The theory of planned behaviour (Ajzen, I., 1991)

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