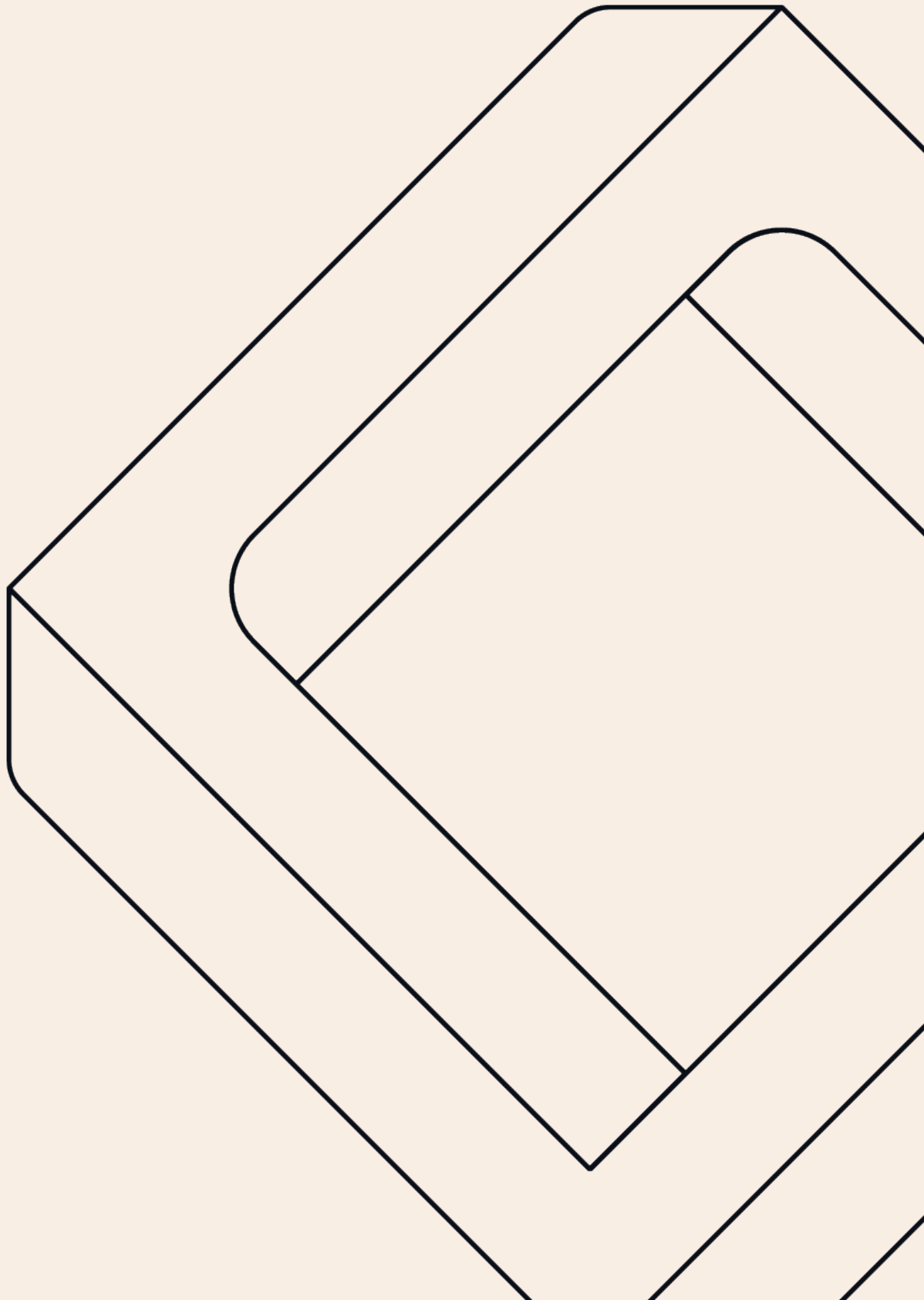


Communicating during travel disruption

Technical Appendix



July 2024

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Department
for Transport



Communicating with travellers during travel disruption

A communication toolkit developed by Verian in partnership
with the Department for Transport

This toolkit is informed by behavioural science and aims to support the design of communications during travel disruption

The toolkit can be used to support strategic planning, especially around planned changes, such as the introduction of the EU Exit and Entry System (EES) and European Travel Information and Authorisation System (ETIAS)



A user journey that breaks down traveller decision-making

Map out the context and understand your audience



A needs framework to support the identification of traveller needs directing behaviour



The Krebs principles to craft how and what to communicate to travellers

Build communications

The final part focuses on what to do when travel disruption strikes



A checklist of considerations

Act swiftly

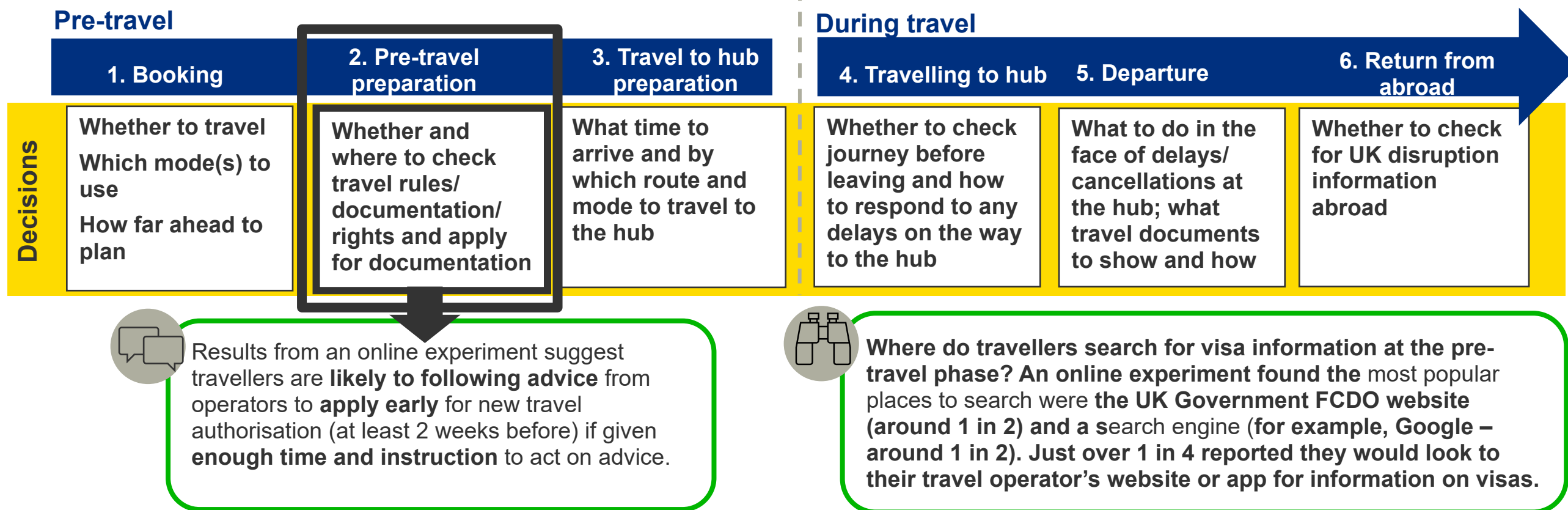
The toolkit is based on primary research with travellers and a review of existing evidence to understand what travellers want and need from operator communication during travel disruption

Traveller user journey



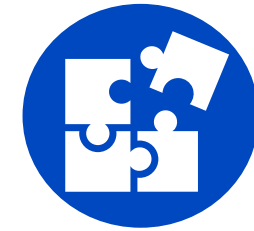
The research identified six stages of the traveller journey based on decision-making and information needs: Stage 2 will be important when communicating about EES/ETIAS

 It will be important to remind travellers in good time about EES/ETIAS requirements, via as many touchpoints as possible, to maximise the reach and salience of the message. It may also be possible to highlight this at the booking stage

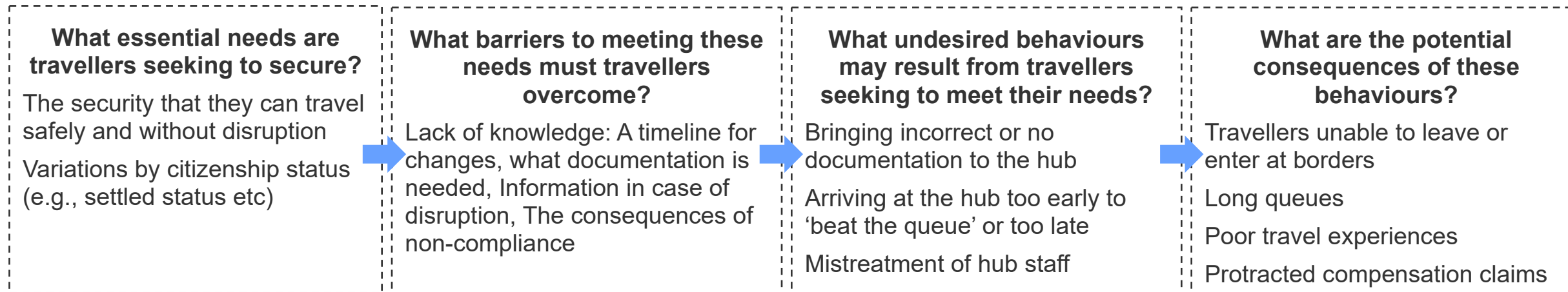


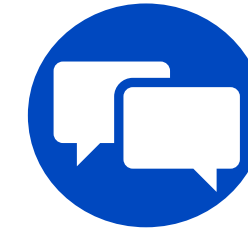
Traveller needs framework

The needs framework helps map out communications strategies to mitigate “undesired” traveller behaviour and avoid further disruption



In the context of EES/ETIAS it may be relevant to consider:





How to communicate

Focus groups and interviews validated the Krebs principles and showed how the three key rules can best be applied to communicating about EES and ETIAS

1

Communicate consistently and frequently

Communicate directly with traveller if EES/ETIAS is affecting a booked journey

Update if there are changes to the situation

Aim for consistency with local partners' messaging

Join up messaging with government, e.g.

<https://www.gov.uk/foreign-travel-advice>

<https://www.gov.uk/government/publications/aviation-passenger-charter>

<https://www.gov.uk/guidance/maritime-passenger-rights-your-journey>

<https://www.gov.uk/government/publications/guidance-on-rail-passengers-rights-and-obligations-regulation-no-13712007>

<https://www.gov.uk/guidance/air-travel-checklist-for-travel-from-the-uk>

2

Use trusted sources and messengers

Operators are likely to have traveller contact details and, according to travellers, are responsible for ensuring travellers are informed.

Face-to-face communication may be needed if queueing exceeds 2 hours in airports and 1 hour in other hubs.

Hubs had a lower profile among travellers as information providers; there is an opportunity for operators to link travellers to hub communication.

Government information may also be relevant and trusted that operators could link travellers towards

3

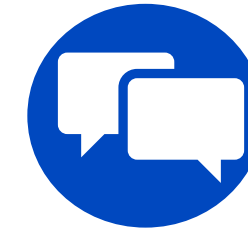
Set expectations that information may change quickly

Time stamp information

Explicitly state that information may change and will be updated if there is a change in status

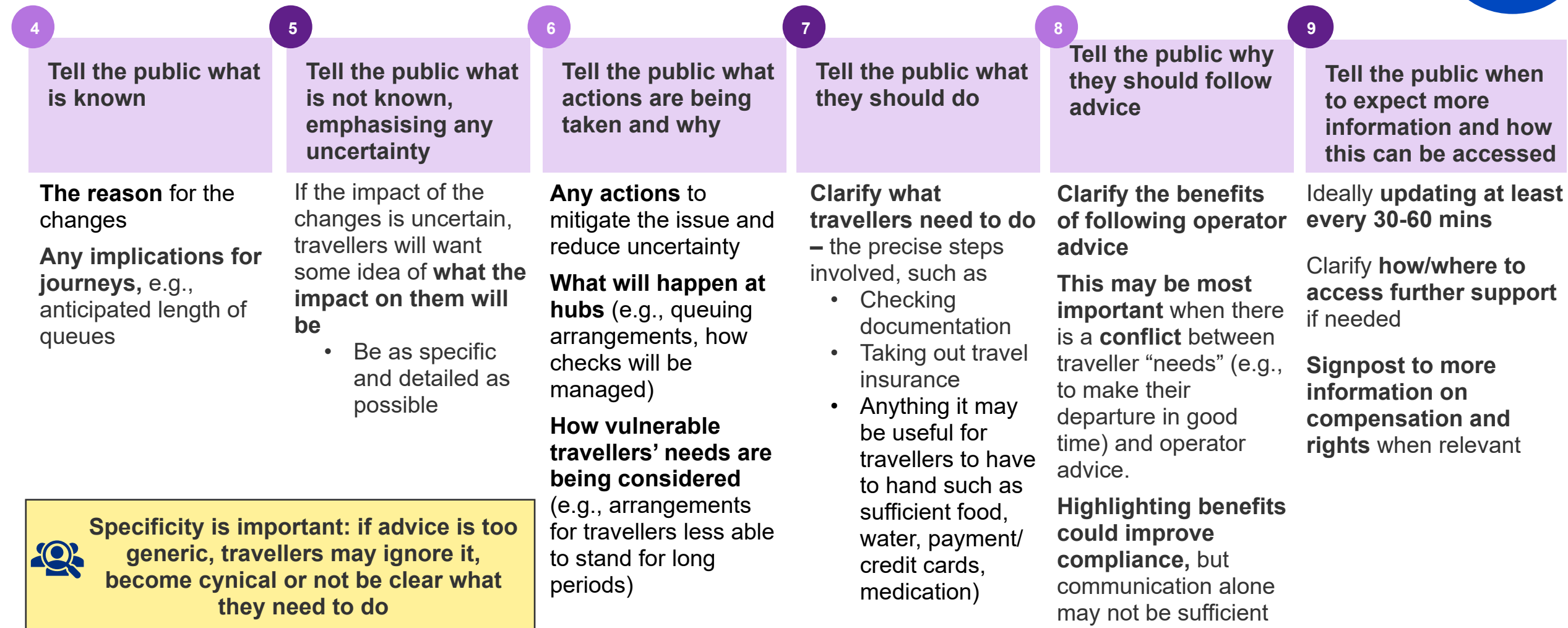
Tone: factual, professional and helpful but empathetic and apologetic when impacts are more severe






What to communicate

Research also helped to clarify what is ideally communicated in the context of disruption



 **Specificity is important: if advice is too generic, travellers may ignore it, become cynical or not be clear what they need to do**



Getting to the port



Getting there by car? Please stay on the main roads and follow road signs to the port even if the main roads are busy. Using minor routes can create additional delays to your journey. If traffic control measures are in place you may be unable to rejoin the main road.

7

Tell the public what they should do

8

Tell the public why they should follow advice

Plan your arrival



Your ferry departs at 2pm, and check-in closes 30 minutes before scheduled departure. Please aim to arrive 1 to 1 and a half hours before your departure.

Evidence from an online experiment with 1,001 travellers found **highlighting “what” travellers should do and “why”** increased compliance with advice to stay on main roads when driving to the port by 13 percentage points.



When travel disruption strikes use this list to check your communication with travellers

Are you telling travellers...

- What you know about the situation, and what don't you know?
- What they need to do and why?
- When to expect more information?

When communicating with travellers, are you...

- Using multiple relevant communication channels (e.g., email, app, website banner, Twitter, SMS)?
- Reaching people who may be on their way to a hub (e.g., via the live travel network)?
- Reaching people who are already at the hub?
- Updating messaging on an ongoing basis when the situation is changing, in line with the expectations you have set?

When communicating with travellers, are you...

- Reaching out to relevant partners, where possible, to clarify the situation
- Ensuring your messaging is consistent with other stakeholders
- Referring travellers to other relevant stakeholder information if appropriate

Appendix B: Scoping review

As shown in Table 1, some papers focused on specific populations (e.g., rural travellers (Papangelis et al., 2016)), events where disruption was anticipated (e.g., large organised events (Cottrill et al., 2017; Jones & Woolley, 2019)) or the use of social media as a communication tool between operators and travellers (Cottrill et al., 2017). We included one operator communications toolkit in the review for plane operators (Department for Transport, 2022).

Of the 15 papers reviewed, five were peer reviewed articles (Clegg et al., 2018; Cottrill et al., 2017; Douglas & Brauer, 2021; Jones & Woolley, 2019; Papangelis et al., 2016), six were reports (Civil Aviation Authority, 2011; Department for Transport, 2021; Marsden et al., 2016; Office of Rail Regulation, 2015; Robinson et al., 2018; Vancouver Airport Authority, 2023), one was a communication strategy (Heathrow Express, 2021), one a case study (Neill, 2022), one an online article (Ghee, 2013), and one a toolkit (Department for Transport, 2022). In terms of context, 13 focused on the UK and 2 on North America (Robinson et al., 2018; Vancouver Airport Authority, 2023). Three papers and one toolkit focused on international travel disruption, and all focused on aviation (Civil Aviation Authority, 2011; Department for Transport, 2022; Ghee, 2013; Vancouver Airport Authority, 2023). The rest of the evidence in the scoping review focused on domestic travel disruption on public transport (bus, train, metro) or for road users.

Table 1: Summary of papers and toolkits included in the scoping review

Citation	Country	Methods	Context
(Cottrill et al., 2017)	UK	Case Study, Primary Qual, Secondary data	Bus/train/subway Domestic (UK) Social media - Twitter General (and international) population Anticipated (large event) disruption Assessing the development of social media strategies for transport information sharing during large, disruptive events
(Papangelis et al., 2016)	UK	Primary qual	Bus in rural areas Domestic (UK) Phone based communication: Social media, apps, text message, email Rural population focus Unanticipated disruption
(Jones & Woolley, 2019)	UK	Primary qual, Survey, Secondary data	Subway / Bus Domestic (UK) Anticipated (large event) disruption Focus on communications towards businesses / large companies as well as travellers in travel demand management. Travel advice targeted to businesses, freight management and travellers in event e.g London Olympics.
(Douglass et al., 2018)	UK	Survey	Train Domestic (UK) Social media, In app, Radio, On-station information Disruption to infrastructure and operation (anticipated and unanticipated) TW Metro Case study (light rail system in North East England)
(Clegg et al., 2018)	UK	Primary Qual	Train Domestic (UK) Chilterns Railway

			Different communication modes including social media Utilises a Mitigate, Prepare, Respond and Recover framework
(Robinson et al., 2018)	USA	Literature review, Case studies	Road Domestic (US) Mobile devices, social media Unanticipated (traffic incidents, severe weather, emergencies) and anticipated (road works, events, rallies, celebrations) disruption Problem, location and action (PLA) framework 3 rd party mapping apps
(Department for Transport, 2021)	UK	Primary qual, survey	Train Domestic (UK) Unanticipated delays and disruption (to travellers) Survey population = Commuters, Business travellers and Leisure travellers
(Civil Aviation Authority, 2011)	UK	Primary qual, Survey	Aeroplane International (UK) Unanticipated disruption (weather) Airlines and airports
(Neill, 2022)	UK	Case study	Train Domestic (UK) On station mobile totems.
(Ghee, 2013)	UK	Case study	Aeroplane International (UK) Unanticipated disruption (weather) Mobile device
(Office of Rail Regulation, 2015)	UK	Case study	Train Domestic (UK) Unanticipated disruption (engineering overruns) East Coast / Great Western
(Heathrow Express, 2021)	UK	Case study	Train Domestic (UK) Passenger Information During Disruption (PIDD) policy Heathrow express
(Vancouver Airport Authority, 2023)	Canada	Case study	Aeroplane International (Canada) Unanticipated disruption (weather)
(Department for Transport, 2022)	UK	Toolkit	Aeroplane International (UK) INCASE framework Set of key principles
(Marsden et al., 2016)	UK	Policy paper (case studies, secondary data), Survey	Roads, trains Domestic (UK) 'Dynamic sources of information', TV, newspaper, government websites Unanticipated disruption (Infrastructure failure, weather)

Appendix C: Traveller qualitative sample

Recruited sample

20 Depths:

- All to be planning to go on an international trip either within the next three months (min. 5) and/or to have returned from an international trip within the last three months (min. 5)
- All to have some responsibility for planning/making decisions (whether individually or jointly) regarding travel

Representing a mix of:

- Gender (11 women, 9 men) and SEG across the sample (even split of ABC1/C2DE)
- Ethnicities (9 participants from minority ethnic backgrounds)
- Ages, ensuring representation of under 25s, 25-50s, 50-65s and over 65s
- UK regions (including North/ South England, Scotland, Wales and Northern Ireland)
- Sizes of 'travel unit' (e.g. individuals, couples and larger groups)
- Destinations (including EU and other international destinations)
- Duration of trips (e.g. weekends to more than two weeks)
- Planned trip dates (e.g. imminent versus later)
- Regular versus less frequent travellers (e.g. have not travelled abroad in the last year through to travelled abroad more than three times within the past year)
- Planned modes of transport, including those using more than one mode for their journey (within this including some using public transport, e.g. trains and buses, to get to their UK departure point)
- Different travel operators

Including:

- 4 digitally excluded participants
- 4 participants with a physical or learning impairment
- 5 participants travelling with children

6 Focus Groups:

- All to have been on an international trip within the last 3 years to a range of EU and other international destinations
- Groups 3, 4 and 5 to include at least 3 people in the sample who has travelled on a coach as part of an international journey within the last 3 years
- Including participants who used a range of operators within each journey
- None to reject going on an international trip within the next year
- All to have some responsibility for planning/making decisions (whether individually or jointly) regarding travel
- All groups to be mixed gender (overall even split of male/female) and mixed age 18+
- At least 3 participants who have children aged 0-10 in the sample and 3 who have children aged 11-16 living at home across the sample
- All groups to include participants living in different areas of the UK including in rural, suburban and urban locations (at least 1 participant who lives in a rural area, 1 participant who lives in a suburban area and 1 participant who lives in an urban area in each group)
- At least 7 participants to be from minority ethnic backgrounds across the sample
- At least 4 participants across the sample who are disabled or who have a health condition that means they may require adjustments for when they travel or access travel information
- 1 person with dyslexia or dyspraxia
- 1 person with a hearing impairment
- 1 person with a visual impairment
- 1 person with a physical impairment

Appendix D: Qualitative discussion guides and stimulus

Traveller depth interview topic guide

Topic guide notes

This document details the planned approach for talking to travellers – people who have recently returned from an international trip or who are due to travel internationally in the near future.

This guide is intended to be used flexibly, with participant responses guiding the flow of the conversation and topics covered in the order that they naturally arise. Given the range of different situations that people will be talking about and topics of interest that emerge, the interviews may vary in content and focus.

Stimulus for the discussion

PowerPoint slides including:

- Information providers (slide 2)
- Communication formats (slide 3)
- Information content (slide 4)
- Five travel disruption scenarios A-E (slides 5-9)
- Traveller 'behaviours' (slide 10)

The focus of these interviews is to understand how best to communicate about summer travel disruption, so all participants will discuss this scenario (A) in their interview first. They will then look at a second, rotated across interviews as follows:

Depth no	2 nd scenario
1	B
2	C
3	D
4	E
5	B
6	C
7	D
8	E
9	B
10	C
11	D
12	E
13	B
14	C
15	D
16	E
17	B
18	C
19	D
20	E

1. Introduction

(2 mins)

AIM: Introduce the research and reassure about confidentiality

- Introduce moderator and Kantar Public
- Research on behalf of DfT
- Aim of the discussion is to understand how people use travel information to help them plan their journey and adapt to any disruption to their travel
- The overall purpose of the research is to explore how government and operators can best communicate during travel disruption and minimise the negative impact of disruption on travellers
- We will refer to the pre-task document they filled in before the interview
- Interview length will be no more than 60 minutes
- Participation is voluntary and confidential – no quotes or details will be attributed to named individuals in the reporting of this research
- The discussion will be recorded so that we accurately capture what has been said and researchers can listen back to the recording – only the research team will have access to this
- DfT may request to read transcriptions of some interviews – if a transcript is passed over to DfT personal details will be removed so the text is anonymised
- Any questions/concerns?

2. Background

(8 mins)

AIM: Understand a bit more about the participant's context, including their general travelling behaviour and the status of the trip we will be talking about

- A bit about them, who they live with and how they spend their time
- A bit about them and their international travelling behaviour and history in general
 - Frequency of international travel and reasons for this
 - Recency of last international trip
- How they would describe their traveller 'personality'
 - How adventurous/spontaneous are they, to what extent do they plan/prepare, how relaxed/worried are they – and to what extent this varies according to the type of trip they are taking (e.g. would they tend to behave differently if the trip was for work or leisure or a family visit etc)
 - How their 'traveller personality' compares with that of others in their travel group and what this means for how they approach(ed) planning for, and the experience of, their international trip
- A bit about their trip
 - Reason for travel
 - Destination, who with, for how long, when
 - Feelings/expectations about the experience of the journey
 - Any top of mind concerns before travelling and reasons for this (listening out for whether they're expecting to experience disruption, or whether they expected to)
 - Whether they, or any of their fellow travellers, require(d) any adjustments or assistance for travel

- A bit about how they like to consume media in general
 - What communication modes they tend to prefer and reasons
 - Extent to which they use apps/social media/online information versus other channels

3. Travel user journey

(15 mins)

AIM: Using the pre-task participants have filled in, explore their travel user journey

Moderator: Explain to participants that we want to understand how they approached planning and preparing for their international trip and what types of information they used to do this

Ask them to talk through their pre-task, telling us about the stages they went through and the information they searched for and/or were sent

There will be a large variation in terms of where participants are in their user journey, as some will be in the early stages of planning, whereas others will have returned within the last 3 months – where participants have not completed a stage of the process, explore what they expect they will do/what will happen

If any situations relating to travel disruption are mentioned, probe them in detail to understand what communication/information was sought/received and how participants responded, listening out for strategies such as:

- **Building extra time into journeys or changing the date/time of travel**
- **Making changes to the route or mode used**
- **Cancelling travel**

- In general, where they're up to overall regarding their trip
- Deciding to travel
 - How they decided whether to go, and where to go/when/with whom – what the considerations were
 - What information they actively sought or passively came across – what sources these were and what the content was
- Booking travel
 - Modes of transport and operators chosen, and reasons for this (trying to be as explicit as possible about different modes being used within the same overall international journey)
 - Channel for booking travel (e.g. online, on the phone etc)
 - What the travel operator(s) sent/provided, in what format
 - Feelings about usefulness/trustworthiness of operators' information (probing how this varies if multiple operators are involved)
- Preparing for the trip overall
 - Any information sought or received regarding travel in general or travel documentation
 - **Moderator: Listen out for mentions of information regarding passport validity, Foreign and Commonwealth Office information etc**
- Preparing for departure
 - To what extent they planned or will plan for getting to their point of UK departure
 - Any information sought to do this/communication received about this
 - Feelings about the usefulness/trustworthiness of this information
- Check-in
 - When they did this

- What information they received, in what format
- Journey
 - Any travel information received/accessed during the journey to the point of departure (e.g. online during the journey, on digital screens on roads/in stations etc)
 - What their behaviour was and/or usually is around planning for travel to the departure point (e.g. do they aim to get there early etc) and reasons for this
- Any other information they received/sought that doesn't fit into any of these stages
- Overall satisfaction with the communication/information they have accessed/received about their travel and reasons for this
- Extent to which planning for travel disruption was a factor in their approach – reasons for this and, if it was, what they did/information they sought in this context and what they did/plan to do about it

5. Travel disruption communication

(10 mins)

AIM: Prompting participants to think about experiences of travel disruption and exploring spontaneous thoughts on what is helpful

- Explore feelings about travel disruption
 - How much of an issue/concern they perceive travel disruption to be and why (compared with other aspects of their travel) – and how might this vary in different situations
 - To what extent are any delay times 'acceptable' or 'expected'
 - What length of time is a tolerable delay
 - How they feel about queuing on roads/in ports/airports in the context of international journeys (being clear about the situation they are thinking about)
 - Any situations they are particularly keen to avoid and why (e.g. waiting in queues etc)
 - Any reasons delays can cause particular problems for them (e.g. no access to medication/toilets, young children become distressed, concerns about needing to book other travel options/accommodation, emotional distress due to missing events/occasions etc)
 - To what extent they tend to plan for travel disruption (if not already discussed) – if so, why is this and what do they do
- Describe any previous situations experienced in which they received communication about international travel disruption, delays or changes to plans – or, if that is not relevant, any experiences of this in relation to national travel

Moderator: Clarify that our definition of travel delay includes acute or longer term issues that cause disruption, such as high volumes of traffic, strike action, staff shortages, weather disruption, queues at ports/airports/stations, electronic equipment failure, changes to required travel documentation etc

- The situation and their experiences
- What was communicated, by whom and how this was accessed, whether they used any third party information, e.g. on social media (feedback from other passengers/hacks/shortcuts/tips to deal with travel disruption)
- What they did in response, how it affected their behaviour (if at all), including whether they felt that their behaviour contributed to disruption in any way

Moderator: once again, listen out for different strategies

- How helpful/relevant they felt communication/information was overall

- How communication/information could have been better in that situation – what would ideally have been communicated, when, how, by whom – and what difference would it have made to what they did and how they felt about it

6. Travel disruption scenario exploration

(15 mins)

AIM: Understand participants' perceptions of how communication would ideally work in a range of scenarios based on their own user journey

Moderator: Introduce the different types of information providers (slide 2 in the stimulus pack)

- Explore whether they have any preferences around who provides information in the context of travel disruption
 - What would they generally expect the different providers to be communicating about and why – to what extent would they like to see this change and why
 - How trustworthy are the different types of providers and why

Moderator: Introduce the different communication formats (slide 3 in the stimulus pack)

- Explore whether they have any preferences around communication formats
 - What types of communication they generally prefer and why (e.g. email, app, letter, text etc)
 - Which formats are best for which types of information/situation (if relevant)
 - Interest in/preferences for alerts 'pushed' out by operators (e.g. text messages, push notifications from apps, emails etc)
 - Interest in/preferences for information that they personally access (e.g. websites, social media posts etc)
 - Any aspects of content, design or presentation in these types of communication which may make them more likely to pay attention to the communication

Moderator: Introduce the message delivery slide (slide 4 in the stimulus pack)

- Discuss information requirements and the extent to which they are interested in the different types of content mentioned on the slide – what might be relevant in different situations and reasons for this

Moderator: Explain that we want to think about how information can best be provided in different travel disruption scenarios

Begin with scenario A, explaining that our main focus is how to communicate about summer travel disruption

Ask them to keep in mind the three slides we have already shown them (i.e. the different options for information providers, communication formats and information content) to help guide their answers

Please note that some specific questions relating to the scenario are included in the notes section of the slides

- Ask them to describe what they imagine being the issues/problems that this situation would raise for them in the context of their trip and how they think they would be likely to respond if they were aware of the situation
- What communication about this situation would they want (if any)
 - At which points in the user journey do they think it's relevant to communicate
 - At what level of disruption should communication/information be disseminated (what is the 'threshold', i.e. when do they perceive that communication/information is relevant – probe whether this relates to severity of issue and/or waiting time)

- What is the right amount/level of detail/frequency of information at each of these points (and what is too much) – and what would they want to know, from whom and how might this vary (referring to slide 4 if helpful)
 - How important is timing (i.e. how soon after disruption is known about should communication happen)
 - How active would they want to be in seeking the information (e.g. would they want to search for it or would they prefer it to be delivered to them, so they are relatively passive; how 'in control' do they want to feel)
 - How would information ideally be delivered (e.g. what format, what communication channels, any presentation requirements etc)
 - What tone of voice do they want to hear
 - What decisions or behaviours would or could the information lead them to make/perform (depending on the situation, e.g. continue with their planned journey, delay their journey, re-route, re-mode, re-book etc)
 - Is there anything else other than direct communication about the disruption that would be useful to have communicated (e.g. ease of/channels for re-booking disrupted journey or clarity on passenger rights/ability to claim on insurance in these situations) – if so, how would this best be done
- Given that the situation may evolve/change quickly, what should that ideally mean for communication – how would they like to be kept up to date in the context of rapidly changing situations, how would these be delivered and how frequent they ideally be

Moderator: where relevant relate this to the prompt on some of the scenarios about becoming aware of disruption on the day of travel

Moderator: Refer to the rotation table at the start of this guide and repeat for a second scenario

Be prepared to be flexible if the participant has already talked about a particular scenario already (e.g. in section 5) and make a judgement as to whether it is more relevant to focus on that situation and glean more detail about it or move onto another

IF TIME: Refer to the traveller 'behaviours' on slide 10 and explain that at certain times travel operators may want travellers to do some things and not others – explore the behaviours, focusing on

- How travellers feel about each behaviour
- If operators want travellers to comply with this, who should be telling them what, at what point during their 'travel user journey', in what way

7. Summary

(7 mins)

AIM: Summarise key points regarding how to develop communication around travel disruption

- What would they most like to see change in the future regarding how travel disruption is communicated and why
- How can communication improve their experience of travel disruption
- What role should different parties take in communicating about travel disruption (e.g. government, ports/airports, plane and ferry companies etc) and what might this be about
- What advice would they give operators for how to ensure that communication works best for travellers and what should be avoided

8. Wrap up

(3 mins)

- Any other questions or comments
- Incentive payment for time (£50 voucher emailed within 10 days)
- Thank and close

Traveller focus group topic guide

Topic guide notes

This document details the planned approach to groups among travellers who have used different modes for international journeys. Each group will be focused on a particular mode of transport, i.e. plane, ferry and international rail, and this should be the focus of activity in the group.

In addition, each group will primarily focus on one of three travel disruption themes – please see below for how these will be apportioned in each group (each group has also been assigned a secondary topic to discuss in less detail if there is time).

Group no	International travel mode	Primary Topic focus	Secondary Topic (if time)
1	Air – drive to airport	Regulation (A)	Resilience (C)
2	Air – use public transport to get to airport	Resilience (C)	Weather (B)
3	Ferry from Dover	Regulation (A)	Weather (B)
4	Ferry from UK port other than Dover	Resilience (C)	Regulation (A)
5	International Rail - Eurostar	Weather (B)	Regulation (A)
6	International Rail - Eurotunnel Le Shuttle	Regulation (A)	Resilience (C)

This guide is intended to be used flexibly, with participant responses guiding the flow of the conversation and topics covered in the order that they naturally arise. Given the range of stakeholders involved, we will focus on discussing the topics most relevant to the individual(s) present at each interview.

1. Introduction

(3 mins)

Aim: set up the session

- Wait until all relevant participants have joined and then admit them from the waiting room
- Check that everyone's video and audio is working

Introduction

- Introduce moderator and Kantar Public – an independent social research agency
- We are conducting this research on behalf of the Department for Transport
- The aim of the discussion is to understand how best travel operators can communicate with travellers about travel disruption – we have brought you together today as people who have experience of using [insert relevant mode of transport] and who are open to travelling internationally in the future
- We will be discussing possible scenarios relating to travel disruption and how travellers would ideally be communicated with in different situations, so it will be a creative discussion in which we will invite you to suggest ideas
- The research will be used to develop a toolkit for operators that is based on what travellers think are relevant ways of communicating about travel disruption
- Discussion length will be 90 minutes
- Research is confidential and voluntary and no one will be identified personally when the research is reported back

House Rules

- Please make sure you are in a quiet room, with minimal distractions.

- We ask that you do not multi-task (e.g., surf the internet, send emails) for the next 90 minutes and give this discussion your undivided attention. Please if possible, keep your camera and microphone on throughout the session.
- We expect to hear from everyone during today's discussion – please do listen and respond to what others say as you would in a face-to-face focus group and try to avoid interrupting or speaking over each other to ensure everyone can be heard.
- Any questions/concerns?

Recording

- Ask participants for permission to record, then start recording and confirm consent

2. Background

(7 mins)

Aim: to warm participants up and establish rapport

- Name, where live, how spend time, who live with
- How frequently they travel internationally, for what purpose, which destinations and their overall familiarity with the mode
- Their most recent experiences of using the mode – journey experiences and experiences of communication from the mode operator
- Describe any experiences of travel disruption within that mode: what happened, what communication was received and how they felt about it

3. Communication within the user journey

(15 mins)

Aim: to validate findings from the in-depth interviews and develop further insight, particularly for ferry and international rail

Show participants the overarching stages of the user journey (slide 2) and ask them to talk through their experiences of communication/information they received/accessed throughout in relation to the key mode of focus

- First of all, go through each stage of the user journey and discuss what information searched for and what communication they received, from whom, including
 - Information seeking – online, in person
 - Booking process – if applicable
 - Emails, app notifications
 - Text messages
 - Social media posts
 - In situ information – announcements, screens, passenger agents
- For ferry groups, explore expectations of pre-booking and queuing at ports
- If anyone had any experiences of travel disruption, how were these communicated about and how could their experience have been improved
- What different parties would ideally be doing to improve communication with travellers about travel disruption (probing government, operators and travel hubs) – and how might that be different at each point in the process
 - Explore perceptions of responsibility (between gov/operator/hub) for communications around travel disruption and traveller preferences here

4. Main travel disruption scenario

(35 mins)

Aim: to understand how to optimise communication at each point in the user journey in the context of this disruption scenario

Introduction to scenario – 10 mins

Show the first slide from the overall travel disruption primary scenario relevant for their group (see table at the start of the guide for primary scenario, A – slide 3, B – slide 11, C – slide 18)

- Overall feelings about the scenario – explore any previous experiences of this: what was communicated and what worked well/less well
- Overall thoughts about what travellers should be told, by whom, when

Traveller journey – 20 mins

Go through each stage of the traveller journey (A – slide 4-10, B – slide 12-17, C – slide 20-25) – for each part moderator to read out the travel disruption scenario, then ask:

- If the scenario was introduced, what issues would the scenario be raising in the minds of travellers, if they knew about it
 - Spontaneous response
 - Then probe: what would they be thinking, feeling, doing and why
- Specifically, what different actions could they take at each point in the journey: what might they actively do and how could communication influence this (if at all)
 - How could communication promote 'positive' behaviours and how might communication prompt 'negative' behaviours
- What would ideally be communicated to ensure that travellers can feel assured about the situation
 - Probe: what would they want to be communicated, what format, who from, where would they want to receive information, and what this would lead them to do
 - For stage 4/5 specifically – how often would they want updates
- Where relevant in the scenarios, probe how information/communication could be delivered to affect/influence the behaviour at each stage

Keep in mind the following 'positive' and 'negative' behaviours at each stage of the process, as below, to understand what may help prompt the positive and avoid the negative, and what the role of comms is in this:

Stage	'Positive' behaviour	'Negative' behaviour
1	Plan ahead, considering travel to the airport/port/international rail station rather than just main journey	Book main trip but then not plan any further journeys
2	Check rules/documentation/rights on government or travel operator websites	Not check before departure
3	Arrive at the 'right' time	Not checking recommended arrival time with operator or hub
	Be prepared for queuing, have appropriate queue expectations	Not be prepared, assume no/limited queuing

4	Check with hub before leaving home	Leave home without checking
	Stay on major routes/follow instructions from Network Rail/National Highways	Re-route/use rat runs/ignore travel information
5	Follow operators' instructions once at hub (including preparing for cancellation, knowing rights about compensation/rebooking)	Seek alternative information, don't follow instruction
6	Check with operator and/or UK hub before returning home	Leave without checking

- For scenario A particularly focus on how to ensure that travellers know about the changes (including whose responsibility they feel it is to tell them or would want to tell them, e.g., government/hub/operator), have prepared necessary paperwork, are prepared for possibly queuing, avoid time buffering to too great a degree and don't get too frustrated at the hub
- For scenario B particularly focus on ensuring how to ensure travellers minimise the length of their journey to the hub prevent overcrowding and take steps in advance to ensure their wellbeing at the hub, and also be prepared for delays and cancellations to international services and follow operators' instructions
- For scenario C explore how to enable travellers to tolerate a certain amount of uncertainty at all stages of their user journey

Messaging – 5 mins

Show the example messaging slide from the overall travel disruption scenario relevant for their group (see table at the start of the guide, A – slide 10, B – slide 18, C – slide 26)

- Responses to the messaging for the scenario – how they feel, what they think it would prompt them to do differently (if anything)
- In this scenario, what does the messaging need to do – and what might go wrong with the messaging
- How do they feel about what the message is asking them to do
 - Explore whether their perceptions of the desired behaviour
 - Any preferred alternatives to the desired behaviour
- If this message is intended to reassure them, how could it be optimised and why, e.g.
 - Anything to remove/include
 - Change to tone of voice
- How would they want to receive this message
 - Explore: from who, what format (online/signage/text), how often (frequency)

5. Other travel disruption scenarios

(20 mins)

Aim: to understand how travellers respond to different disruption scenarios differently and how this affects their desired communications

Show the secondary scenario relevant for the group (see table at the start of the guide for secondary scenario, A – slide 3, B – slide 11, C – slide 18)

Explain that the scenario we went through is just one of the possible causes of travel disruption DfT are interested in exploring, and we will be showing them another one to do a similar exercise at a top level

Cover the secondary scenario and IF TIME the last scenario briefly

- Overall feelings about the scenario – any previous experiences
 - Spontaneous thoughts about what travellers should be told, by whom, when
- How do they feel this scenario is different from the previous one, if at all
 - How do they feel communications need to be different for this scenario compared to the previous one, if at all, and reasons
- If the scenario was introduced, what issues would the scenario be raising in the minds of travellers
 - Spontaneous response
 - Then probe: what would they be thinking, feeling, doing and why
 - How would this be different depending on the stage of the traveller journey
- What would ideally be communicated to ensure that travellers can feel assured about the situation
 - Probe: what would they want to be communicated, what format, who from, where would they want to receive information
 - How would this be different depending on the stage of the traveller journey
 - How could they be encouraged to perform the 'right' behaviours at each stage of the traveller journey
- For scenario A particularly focus on how to ensure that travellers know about the changes (including whose responsibility they feel it is to tell them or would want to tell them, e.g., government/hub/operator), have prepared necessary paperwork, are prepared for possibly queuing, avoid time buffering to too great a degree and don't get too frustrated at the hub
- For scenario B particularly focus on ensuring how to ensure travellers minimise the length of their journey to prevent overcrowding and take steps in advance to ensure their wellbeing
- For scenario C particularly focus on ensuring how to enable travellers to tolerate a certain amount of uncertainty

Show slide 29 for all groups

- Responses to all three scenarios
 - (if not covered) Any spontaneous thoughts on final scenario – how should this be communicated differently from the other two?
 - Which, if any, do they feel need to be communicated differently from now, why
 - Any other important scenarios that are missing/could be added

6. Summary

(5 mins)

Explain that we are developing a toolkit for operators to use to inform how to communicate travel disruption

- What do they think is the most important thing to get right about communications to travellers about travel disruption and why

5. Thank and close

(5 mins)

- Any other messages to take back to DfT
- Confirm arrangements for incentive payments (£50 voucher emailed within 10 days)
- **Thank and close**

Appendix E: Demographic breakdown of experimental participants

Appendix E - Table 1: Demographic breakdown of participants in the experiment

Demographic	Demographic sub-group	Target %	Achieved %
Gender x Age	Female – 18-34	18%	18%
	Female – 35-44	11%	11%
	Female – 45-64	22%	22%
	Male – 18-34	18%	17%
	Male – 35-44	10%	10%
	Male – 45-64	21%	20%
	Other / Prefer not to say	-	<1%
Ethnicity	White	89%	90%
	Other ethnic group	11%	9%
	Prefer not to say	-	1%
Region	North East	4%	5%
	North West	11%	12%
	Yorkshire and the Humber	8%	8%
	East Midlands	7%	7%
	West Midlands	9%	7%
	East	9%	8%
	London	15%	17%
	South East	14%	13%
	South West	8%	8%
	Wales	4%	4%
	Scotland	8%	8%
	Northern Ireland	3%	3%

Appendix F: Statistical methods and analysis

Statistical methods and analysis

We conducted separate analysis of the primary outcomes for both mode-specific version of the experiment. Outcomes 1-3 were analysed using generalized linear models (GLM) with a logit-link function (equivalent to a logistic regression model) predicting the likelihood that participants' responses comply with operator desired traveller behaviour by trial arm. We analysed Outcome 4 using an ordinal logit model. For each outcome, we constructed a parsimonious model with a main effect of trial arm as the sole predictor to provide an intuitive result describing how large an effect each message has on the primary outcome. This gave a total of four comparisons per mode. We applied the Bonferroni correction for multiple comparisons to control the family-wise error rate.

We also carried out descriptive analysis of secondary measures, including filler questions in the travel journey and questions in the post-journey questionnaire designed to probe the mechanisms through which our interventions may influence a participant's responses. To avoid the risk of encountering a false positive through multiple hypothesis testing, we will not carry out any hypothesis testing (i.e., test of statistical significance) on these measures.

Statistical power

We carried out power analysis using G*Power to determine the minimum detectable effect size of our interventions using a Chi-squared test of independence (which allows us to run the calculation without having to assume a baseline response rate, about which we have no prior expectation). Our power calculations assumed the following:

- A fixed sample size of $N = 1,000$ per experiment mode version.
- Participants are allocated into one of two arms with equal probability.
- Four comparisons are carried out and we control for the family-wise rate of type 1 errors by applying Bonferroni correction, hence $\alpha = 0.0125$.
- 1 degree of freedom
- And that we are seeking a conventionally accepted 80% power

We were powered to detect a small Cohen's w effect size of 0.1055988 (0.1 = small; 0.3 = med; 0.5 = large)

Appendix G: Outcomes

Outcome 1 – Travel Authorisation

Our key outcome variable was derived from responses to **WHEN_ETIAS**. Responses 1-4 were coded as adherent, responses 5-7 were coded as non-adherent. Participants in the intervention conditions who chose option 7 and indicated they were EU citizens were excluded from analysis.

WHEN_ETIAS

ASK ALL
SINGLE CODE

You are exactly six weeks away from your departure. You receive an email from ABC Airlines informing you that under new European law, everyone travelling from the UK must complete a new Travel Authorisation form to enter the EU.

When do you fill out the Travel Authorisation form?

- 1 Immediately
- 2 At least a month from departure
- 3 At least 3 weeks from departure
- 4 At least 2 weeks from departure
- 5 At least 1 week from departure
- 6 Less than a week from departure
- 7 I don't fill out the Travel Authorisation, because I don't need it to travel

Outcome 2 – Arrival Time

Our key outcome variable was derived from responses to **REVISED_TIME**. Responses were coded as adherent if they were after 11:30am in the Plane condition, or after 12:30 in the Ferry condition. Otherwise, responses were coded as non-adherent.

REVISED_TIME

ASK ALL
NUMERIC

It is 1 day before your trip. You are relaxing at home.

You receive news the day before your trip to France that major disruption is expected at the airport due to staff strikes.

At what time do you plan to arrive at the [airport/port] [Airport if ARM = 1,2; Port if ARM = 3,4]

- 1 [NUMERIC – Min 00:00, Max: 23:59]

SCRIPTER NOTE:

If ARRIVAL_TIME > 14:00, SHOW TEXT:

"You have entered an arrival time which is later than your departure time. Please enter an arrival time which is earlier than your departure time"

Outcome 3 – Shortcut

Our key outcome variable was derived from responses to **TRAFFIC**. Response 1 was coded as adherent, responses 2 was coded as non-adherent.

TRAFFIC

ASK ALL
SINGLECODE

[You are back on the road.] You become stuck in traffic. A new route is suggested by your sat-nav that would take you off the main road and through a residential area to save 15 minutes on your journey.

What do you do?

- 1 Stay on the main road in traffic
- 2 Take the new route going through a residential area

SCRIPTER NOTE:
IF SERVICE_STOP == 1,2, SHOW "You are back on the road".

Outcome 4 – Acceptability of delays due to queues

Our key outcome variable was derived from responses to **QUEUE_AIRPORT / QUEUE_FERRY**. Responses were treated as an ordinal variable, and were not re-coded to reflect adherence or non-adherence.

QUEUE_AIRPORT

ASK IF ARM = 1,2
SINGLE CODE

The airport is busy and full of other travellers. After check-in and baggage drop-off, you join the back of a long, slow-moving queue for airport security. An airport staff member tells you the expected wait time is 45 minutes.

How acceptable or unacceptable do you find the length of the airport security queue?

- 1 Totally unacceptable
- 2 Unacceptable
- 3 Slightly unacceptable
- 4 Neutral
- 5 Slightly acceptable
- 6 Acceptable
- 7 Totally acceptable

QUEUE_FERRY

ASK IF ARM = 1,2
SINGLE CODE

After check-in, you join the back of a long, slow-moving queue for identity checks by the border control police. The port is busy and full of other travellers waiting in their cars. A sign at the hub tells you the expected wait time is 45 minutes.

How acceptable or unacceptable do you find the length of the identity check queue?

- 1 Totally unacceptable
- 2 Unacceptable
- 3 Slightly unacceptable
- 4 Neutral
- 5 Slightly acceptable
- 6 Acceptable
- 7 Totally acceptable

Appendix H: Procedure

The experiment began with demographic and screener questions used to determine eligibility, with ineligible participants being screened out. All participants completed screening questions which assessed their previous experience travelling via plane or ferry (see Appendix E for the screening questions shown to participants); participants only eligible for one version of the experiment were randomly assigned to either the intervention and control, in that version, using a least-fill algorithm. Participants eligible for both versions of the experiment were randomly allocated to one version of the experiment using a least fill algorithm, and then, randomly assigned into either the intervention and control arm of that version.

During the journey, participants were asked to imagine that they were about to go on a journey to France and had just finished booking their trip. In this stage, they were shown a series of scenarios that take place on this imaginary journey and asked how they would respond. At certain stages of the journey, participants received scrollable emails and text messages from the operator on a mobile phone screen interface. Choices in the simulated travel journey do not impact on the subsequent stages of the travel journey.

See Appendix I Table 1 for a schematic overview of when each different stage occurs, what participants need to do in the scenario, when the interventions are send, and when outcomes are measured:

Appendix H - Table 1: Simulated journey stages

Stage	Time from departure	Description	Intervention message sent targeting outcome	Outcome measured
1	12-weeks	Booking travel	-	-
2	6-weeks	Preparing for travel	Email targeting Outcome (1)	(1) Complete a Travel Authorisation form at least 2 weeks before departure
3	1-week	Planning trip to hub	Email targeting Outcome (3)	-
4	1-day	Notified disruption is expected at the hub	Email targeting Outcome (2)	(2) Plan to arrive at the travel hub within the operator recommended time window.
5	3 hours 30 minutes	Enroute to hub	-	-
6	2 hours	Enroute to hub stuck in traffic jam	-	(3) Stick to main roads on the drive to the hub
7	1 hour 20 minutes	Arrive at hub	Text message targeting Outcome (4)	-
8	1 hour 15 minutes	Check in desks	-	-
9	1 hour	Join queue for security checks	-	(4) Perceive the level of disruption at the hub as acceptable

Appendix I: Control and intervention messages used in the experiment

Appendix I Table 1: Control and intervention messages

	Plane – Control	Plane – Intervention	Ferry – Control	Plane – intervention
Stage 2 (Outcome 1)	<p>Hi,</p> <p>The requirement for entry into the European Union has changed. Only passengers with a valid Travel Authorisation will be able to enter France from June 1st, 2024. You are booked to travel to France with us on June 15th, 2024. This means that you may need a Travel Authorisation to comply with the new EU entry rules.</p> <p>You get your Travel Authorisation through the European Travel Information and Authorisation System.</p> <ul style="list-style-type: none"> Check you need to complete the form at www.gov.uk/check-travel-authorisation Apply online by completing the Travel Authorisation form and making a payment. <p>You can apply for a Travel Authorisation up to 3 months in advance and we recommend that all</p>	<p>Hi,</p> <p>The requirement for entry into the European Union has changed. Only passengers with a valid Travel Authorisation will be able to enter France from June 1st, 2024. You are booked to travel to France with us on June 15th, 2024. This means that you may need a Travel Authorisation to comply with the new EU entry rules.</p> <p>Apply early to ensure your application is approved on time. You may not be able to travel if you do not have a Travel Authorisation.</p> <p>You get your Travel Authorisation through the European Travel Information and Authorisation System.</p> <p>Completing the Travel Authorisation form is quick and easy:</p> <ul style="list-style-type: none"> Check you need to complete the form at www.gov.uk/check-travel-authorisation 	<p>Hi,</p> <p>The requirement for entry into the European Union has changed. Only passengers with a valid Travel Authorisation will be able to enter France from June 1st, 2024. You are booked to travel to France with us on June 15th, 2024. This means that you may need a Travel Authorisation to comply with the new EU entry rules.</p> <p>You get your Travel Authorisation through the European Travel Information and Authorisation System.</p> <ul style="list-style-type: none"> Check you need to complete the form at www.gov.uk/check-travel-authorisation Apply online by completing the Travel Authorisation form and making a payment. <p>You can apply for a Travel Authorisation up to 3 months in advance and we recommend that all</p>	<p>Hi,</p> <p>The requirement for entry into the European Union has changed. Only passengers with a valid Travel Authorisation will be able to enter France from June 1st, 2024. You are booked to travel to France with us on June 15th, 2024. This means that you may need a Travel Authorisation to comply with the new EU entry rules.</p> <p>Apply early to ensure your application is approved on time. You may not be able to travel if you do not have a Travel Authorisation.</p> <p>You get your Travel Authorisation through the European Travel Information and Authorisation System.</p> <p>Completing the Travel Authorisation form is quick and easy:</p> <ul style="list-style-type: none"> Check you need to complete the form at www.gov.uk/check-travel-authorisation

	<p>applicants planning to travel to the European Union do so as soon as possible. The standard processing time for Travel Authorisation applications is 14 days from submission of your application, but it can take longer.</p>	<ul style="list-style-type: none"> Apply online by completing the Travel Authorisation form and making a payment. <p>You can apply for a Travel Authorisation up to 3 months in advance and we recommend that all applicants planning to travel to the European Union do so as soon as possible. The standard processing time for Travel Authorisation applications is 14 days from submission of your application, but it can take longer.</p>	<p>applicants planning to travel to the European Union do so as soon as possible. The standard processing time for Travel Authorisation applications is 14 days from submission of your application, but it can take longer.</p>	<ul style="list-style-type: none"> Apply online by completing the Travel Authorisation form and making a payment. <p>You can apply for a Travel Authorisation up to 3 months in advance and we recommend that all applicants planning to travel to the European Union do so as soon as possible. The standard processing time for Travel Authorisation applications is 14 days from submission of your application, but it can take longer.</p>
<p>Stage 3 (Outcome 2)</p>	<p>Hi</p> <p>Your flight departs at 2pm, so you can get to the airport 2.5 hours before departure to check in any bags. Remember, the gate closes 30 minutes before departure.</p>	<p>Hi</p> <p>Getting there by car?</p> <p>Please stay on the main roads and follow road signs to the airport even if the main roads are busy. Using minor routes can create additional delays to your journey if traffic control measures are in place.</p> <p>Your flight departs at 2pm, so you can get to the airport 2.5 hours before departure to check in any bags. Remember, the gate closes 30 minutes before departure.</p>	<p>Hi</p> <p>Your ferry departs at 2pm, and check-in closes 30 minutes before scheduled departure. Please aim to arrive 1 to 1 and a half hours before your departure.</p>	<p>Hi</p> <p>Getting there by car?</p> <p>Please stay on the main roads and follow road signs to the port¹ even if the main roads are busy. Using minor routes can create additional delays to your journey. If traffic control measures are in place you may be unable to rejoin the main road.</p> <p>Your ferry departs at 2pm, and check-in closes 30 minutes before scheduled departure. Please aim to arrive 1 to 1 and a half hours before your departure.</p>

<p>Stage 4 (Outcome 3)</p>	<p>Hi,</p> <p>It's almost time to fly to Paris, and we can't wait to get you on board. Here's everything you need to know for a faster turnaround.</p> <p>Please be aware that, due to industrial action queues may be longer than usual at bag drop and security, so please allow plenty of time for your journey to and through the airport. Your flight is scheduled to depart at 2pm. Bag drop opens 2.5 hours before your flight is scheduled to depart.</p> <p>Remember your passports and boarding passes. Double and triple check you have them and that they are signed and valid ready for travel. Have your boarding pass ready. Don't forget to print or download your boarding pass.</p>	<p>Hi,</p> <p>It's almost time to fly to Paris, and we can't wait to get you on board. Here's everything you need to know for a faster turnaround.</p> <p>Please be aware that, due to industrial action queues may be longer than usual at bag drop and security, so please allow plenty of time for your journey to and through the airport. Your flight is scheduled to depart at 2pm. Bag drop opens 2.5 hours before your flight is scheduled to depart. Arriving before bag drop opens may add to your waiting time and cause delays for other passengers.</p> <p>Remember your passports and boarding passes. Double and triple check you have them and that they are signed and valid ready for travel. Have your boarding pass ready. Don't forget to print or download your boarding pass.</p>	<p>Hi,</p> <p>It's almost time to sail to Calais, and we can't wait to get you aboard. Here's everything you need to know for a faster turnaround.</p> <p>Please be aware that, due to industrial action queues may be longer than usual at passport control and the security check-in desk. Please still aim to arrive between 1 to 1 and a half hours before your scheduled departure.</p>	<p>Hi,</p> <p>It's almost time to sail to Calais, and we can't wait to get you aboard. Here's everything you need to know for a faster turnaround.</p> <p>Please be aware that, due to industrial action queues may be longer than usual at passport control and the security check-in desk. Please still aim to arrive between 1 to 1 and a half hours before your scheduled departure. Do not arrive too early, as it may mean a longer wait. You may be turned away and asked to return later.</p>
<p>Stage 7 (Outcome 4)</p>	<p>N/A</p>	<p>We are sorry that due to industrial action wait times at airport security are longer than normal. Current wait times are approximately 45 minutes. We will update you if the situation changes. We are</p>	<p>N/A</p>	<p>We are sorry that due to industrial action wait times at the port are longer than normal. Current wait times are approximately 45 minutes. We will update you if the situation changes. We are</p>

		sorry for any inconvenience this may cause you.		sorry for any inconvenience this may cause you.
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Appendix J: Experimental questionnaire

PRE-TRIAL SCREENER QUESTIONS AND DEMOGRAPHICS

SCRIPTER NOTE: There are two versions of this experiment. Unless noted explicitly, questions are to be asked in both experiments. Can we please have an embedded data field called "VERSION" for both experiments? For all respondents who enter the PLANE version of the experiment, VERSION = "PLANE". For all those who enter the FERRY version of the experiment, VERSION = "FERRY".

SCREENER_PLANE

ASK ALL
SINGLE CODE

Have you travelled abroad from the UK by aeroplane in the last 10 years?

- 1 Yes
- 2 No

SCREENER_PLANE_2

ASK IF = SCREENER_PLANE == '1'
SINGLE CODE

Would you consider travelling abroad by aeroplane in the future?

- 1 I would consider it
- 2 I would not consider it

SCRIPTER NOTE: If 2 = "No" PLANE_OUT = 1.

SCREENER_FERRY

ASK ALL
SINGLE CODE

Have you travelled abroad from the UK by ferry in the last 10 years?

- 1 Yes
- 2 No

SCREENER_FERRY_2

ASK IF = SCREENER_FERRY == '1'
SINGLE CODE

Would you consider travelling abroad by ferry in the future?

- 1 I would consider it
- 2 I would not consider it

SCRIPTER NOTE: If 2 = "No" FERRY_OUT = 1.

SCRIPTER NOTE: If PLANE_OUT and FERRY_OUT = 1, exclude from study

TRAVELREC

SHOW IF SCREENER_PLANE = 1 'Yes' or SCREENER_FERRY = 1 'Yes'
SINGLE CODE

In which year did you last travel abroad by *[mode]* from a UK *[hub]*?

- 1 2024
- 2 2023
- 3 2022
- 4 2021
- 5 2020
- 6 2019
- 7 2018
- 8 2017
- 9 2016
- 10 2015
- 11 2014
- 12 2013
- 13 Before 2013

SCRIPTER NOTE:

If version = 'PLANE', [mode] = 'plane' and [hub] = 'airport'.

If version = 'FERRY', [mode] = 'ferry' and [hub] = 'port'.

If 12 or 13, screen out of the study.

AGE

ASK ALL
NUMERIC

First, we would like to ask you some questions about yourself.

How old are you?

- 1 *Numeric Response*

Scripters note:

IF AGE > 64, screen out of the study

GENDER

ASK ALL
SINGLE CODE

What is your gender?

- 1 Male
- 2 Female
- 3 Other
- 4 Prefer not to say

REGION

ASK ALL
SINGLE CODE

In which UK region do you live?

- 1 East
- 2 East Midlands
- 3 London
- 4 North East
- 5 North West
- 6 Northern Ireland

- 7 Scotland
- 8 South East
- 9 South West
- 10 Wales
- 11 West Midlands
- 12 Yorkshire and the Humber

EDUCATION

ASK ALL
SINGLE CODE

What is the highest level of education you have completed?

- 1 Left school without qualifications
- 2 GCSE/Standard grade
- 3 A-Level/Higher grade
- 4 BTEC Higher level
- 5 Higher National Certificate (HNC)/Higher National Diploma (HND)
- 6 NVQ level 4 to 5/RSA National Diploma
- 7 Professional qualifications (for example, teaching, nursing, accountancy)
- 8 University degree
- 9 University post-graduate degree
- 10 Other

ETHNICITYPRE

ASK ALL
SINGLE CODE

The next question of this survey is about ethnicity, which is considered sensitive data. It will be used for data classification purposes only. It will remain confidential in line with our privacy policy.

Do you agree to answer this question on this basis? Please feel free to say, "No, I do not agree"

- 1 Yes, I agree
- 2 No, I do not agree

ETHNICITY

ASK IF ETHNICITYPRE = 1 "Yes, I agree"
SINGLE CODE

What is your ethnic group?

- 1 Indian
- 2 Pakistani
- 3 Bangladeshi
- 4 Chinese
- 5 Any other Asian background
- 6 African
- 7 Caribbean
- 8 Any other Black/African/Caribbean background
- 9 White and Black Caribbean
- 10 White and Black African
- 11 White and Asian
- 12 Any other Mixed/Multiple ethnic background
- 13 Arab
- 14 Any other ethnic group
- 15 White English/Welsh/Scottish/Northern Irish/British

- 16 Irish
- 17 Gypsy or Irish Traveller
- 18 Any other White background

TRAVELLER JOURNEY

INTRODUCTION

ASK ALL
SINGLE CODE

Thank you for agreeing to participate in this study. The study will take approximately 10 minutes to complete.

In this study, we will ask you to imagine that you are about to go on a journey to France and that you have just finished booking your trip. In a moment, we will show you a series of scenarios that take place on this imaginary journey and ask you how you would respond. Afterwards, we will ask you some questions about your experience of completing the imaginary journey. Last, we will ask you for some more information about yourself.

All your responses are kept in the strictest confidence and are completely anonymous. Please take the time you need to complete this study at your own speed.

If you do not wish to proceed, please opt out by closing the page.

Are you happy to continue?

1 Continue

SCROLLING_INTRODUCTION

ASK ALL
SINGLE CODE

Throughout the imaginary journey, you will receive communications from your airline on your mobile phone, via email and text. Some messages will require you to scroll down to view the entire message. These messages all contain important information about your trip.

When you are ready, please click the 'I have finished scrolling and am ready to continue' button to start the imaginary journey.

1 I have finished scrolling and am ready to continue

INFO_SEARCH

ASK ALL
MULTI CODE

You have just finished booking a trip to France by plane.

What information do you search for at this point in time? Select all that apply

- 1 Visa and entry requirements
- 2 Tourist attractions
- 3 Travel insurance
- 4 [Airport / Port] information [Airport if ARM = 1,2; Port if ARM = 3,4]
- 5 Other
- 6 I don't search for any information [Exclusive]

SCRIPTER NOTES: Randomise presentation order of 1-4

WHERE_SEARCH

ASK IF = INFO_SEARCH = '1'
MULTI CODE

You said that you would search for visa and entry requirements. Where do you search for this information? Select all that apply

- 1 UK Government Foreign, Commonwealth and Development Office (FCDO) website
- 2 ABC [Ferries / Airlines] website or app [Airlines if ARM = 1,2; Ferries if ARM = 3,4]
- 3 [Airport / Port] website [Airport if ARM = 1,2; Port if ARM = 3,4]
- 4 UK Government Foreign, Commonwealth and Development Office (FCDO) social media account
- 5 Department for Transport website
- 6 ABC [Ferries / Airlines] social media account [Airlines if ARM = 1,2; Ferries if ARM = 3,4]
- 7 [Airport / Port] social media account [Airport if ARM = 1,2; Port if ARM = 3,4]
- 8 Search engine (for example, Google)
- 9 Other (please specify) [TEXT]
- 10 I don't know [EXCLUSIVE]

WHEN_ETIAS

ASK ALL

SINGLE CODE

You are exactly six weeks away from your departure. You receive an email from ABC Airlines informing you that under new European law, everyone travelling from the UK must complete a new Travel Authorisation form to enter the EU.

When do you fill out the Travel Authorisation form?

- 1 Immediately
- 2 At least a month from departure
- 3 At least 3 weeks from departure
- 4 At least 2 weeks from departure
- 5 At least 1 week from departure
- 6 Less than a week from departure
- 7 I don't fill out the Travel Authorisation, because I don't need it to travel

LATEST_ETIAS

ASK ALL

SINGLE CODE

You are exactly six weeks away from your departure. You receive an email from ABC Airlines informing you that under new European law, everyone travelling from the UK must complete a new Travel Authorisation form to enter the EU.

When is the latest you should complete the Travel Authorisation form?

- 1 6 weeks from departure (42 days)
- 2 5 weeks from departure (35 days)
- 3 4 weeks from departure (28 days)
- 4 3 weeks from departure (21 days)
- 5 2 weeks from departure (14 days)
- 6 1 week from departure (7 days)
- 7 4 days from departure
- 8 1 day from departure
- 9 I don't know

ARRIVAL_TIME

ASK ALL

NUMERIC

You are planning your journey to the airport. Your departure is scheduled for 2 p.m.

At what time do you plan to arrive at the [airport/port] [Airport if ARM = 1,2; Port if ARM = 3,4]

1 [NUMERIC – Min 00:00, Max: 23:59]

SCRIPTER NOTE:

If ARRIVAL_TIME > 14:00, SHOW TEXT:

“You have entered an arrival time which is later than your departure time. Please enter an arrival time which is earlier than your departure time”

REVISED_TIME

ASK ALL

NUMERIC

It is 1 day before your trip. You are relaxing at home.

You receive news the day before your trip to France that major disruption is expected at the airport due to staff strikes.

At what time do you plan to arrive at the [airport/port] [Airport if ARM = 1,2; Port if ARM = 3,4]

1 [NUMERIC – Min 00:00, Max: 23:59]

SCRIPTER NOTE:

If ARRIVAL_TIME > 14:00, SHOW TEXT:

“You have entered an arrival time which is later than your departure time. Please enter an arrival time which is earlier than your departure time”

SERVICE_STOP

ASK ALL

SINGLECODE

You are driving to the airport. You have 1 hour left of your journey and it is 3 and a half hours until your departure. The next service station is half a mile away.

What do you do?

1 Continue driving to the [Airport / Port] [Airport if ARM = 1,2; Port if ARM = 3,4]

2 Stop at the service station for a short break

3 Stop at the service station for a long break

TRAFFIC

ASK ALL

SINGLECODE

[You are back on the road.] You become stuck in traffic. A new route is suggested by your sat-nav that would take you off the main road and through a residential area to save 15 minutes on your journey.

What do you do?

1 Stay on the main road in traffic

2 Take the new route going through a residential area

SCRIPTER NOTE:

IF SERVICE_STOP == 1,2, SHOW "You are back on the road".

CHECK_IN_PLANE

ASK IF ARM = 1,2

SINGLECODE

At the airport you see two check-in desks open for passengers travelling to Europe. You have not yet registered for a biometric check. Desk C for all travellers has no queue, and Desk D for travellers who need to register for a biometric check has a queue.

Which lane do you join?

1 Desk C

2 Desk D

CHECK_IN_FERRY

ASK IF ARM = 3,4

SINGLE CODE

At the port you see two lanes open for passengers travelling to Europe. Lane 1 for all travellers has no queue, and Lane 2 for travellers who need to register for a biometric check has a queue. You have not yet registered for a biometric check.

Which lane do you join?

1 Lane 1

2 Lane 2

QUEUE_AIRPORT

ASK IF ARM = 1,2

SINGLE CODE

The airport is busy and full of other travellers. After check-in and baggage drop-off, you join the back of a long, slow-moving queue for airport security. An airport staff member tells you the expected wait time is 45 minutes.

How acceptable or unacceptable do you find the length of the airport security queue?

1 Totally unacceptable

2 Unacceptable

3 Slightly unacceptable

4 Neutral

5 Slightly acceptable

6 Acceptable

7 Totally acceptable

QUEUE_FERRY

ASK IF ARM = 1,2

SINGLE CODE

After check-in, you join the back of a long, slow-moving queue for identity checks by the border control police. The port is busy and full of other travellers waiting in their cars. A sign at the hub tells you the expected wait time is 45 minutes.

How acceptable or unacceptable do you find the length of the identity check queue?

- 1 Totally unacceptable
- 2 Unacceptable
- 3 Slightly unacceptable
- 4 Neutral
- 5 Slightly acceptable
- 6 Acceptable
- 7 Totally acceptable

POST-JOURNEY QUESTIONNAIRE

POST_JOURNEY_INTRODUCTION

ASK ALL
SINGLE CODE

You have now completed your journey to the [airport/port] [Airport if ARM = 1,2; Port if ARM = 3,4]. Thank you for your participation in the experiment so far. We would now like to ask you some questions about your experience completing this imaginary journey.

Please click the 'Continue' button to begin answering questions about your experience.

- 1 Continue

JOURNEY_MESSAGE_INTRODUCTION

ASK ALL
SINGLE CODE

Think about the messages you received from ABC [Airlines/Ferries] [Airlines if ARM = 1,2; Ferries if ARM = 3,4] during the journey.

- 1 Continue

SCRIPTER NOTE:

Randomise the order of questions SELFEFFICACY BENEFIT SOCIALBENEFIT.

For half of respondents selected at random reverse the order of the response options for all of the questions: SELFEFFICACY BENEFIT SOCIALBENEFIT. This means for each respondent the order of response options will be the same for all these questions.

SELFEFFICACY

SHOW TO ALL
SINGLE CODE

If you were on the imaginary journey in real life.

To what extent do you agree or disagree with the following statement:

I am confident that I would be able to follow the advice and instructions from [FILL]?

- 1 Strongly agree
- 2 Agree
- 3 Somewhat agree
- 4 Neither agree nor disagree
- 5 Somewhat disagree
- 6 Disagree
- 7 Strongly disagree

SCRIPTER NOTE:

If ARM = 1,2 then [FILL] = "ABC Airlines"

If ARM = 3,4 then [FILL] = "ABC Ferries"

BENEFIT

SHOW TO ALL

SINGLE CODE

If you were on the imaginary journey in real life.

To what extent do you agree or disagree with the following statement:

Following the advice and instructions from [FILL] would benefit me.

- 1 Strongly agree
- 2 Agree
- 3 Somewhat agree
- 4 Neither agree nor disagree
- 5 Somewhat disagree
- 6 Disagree
- 7 Strongly disagree

SCRIPTER NOTE:

If ARM = 1,2 then [FILL] = "ABC Airlines"

If ARM = 3,4 then [FILL] = "ABC Ferries"

SOCIAL BENEFIT

SHOW TO ALL

SINGLE CODE

If you were on the imaginary journey in real life.

To what extent do you agree or disagree with the following statement:

Following the advice and instructions from [FILL] would benefit other passengers.

- 1 Strongly agree
- 2 Agree
- 3 Somewhat agree
- 4 Neither agree nor disagree
- 5 Somewhat disagree
- 6 Disagree
- 7 Strongly disagree

SCRIPTER NOTE:

If ARM = 1,2 then [FILL] = "ABC Airlines"

If ARM = 3,4 then [FILL] = "ABC Ferries"

INTERVENTION_COMMS_INTRO

ASK IF ARM = 2,4

SINGLE CODE

Now, some questions about the messages you saw on the imaginary journey.

1 Continue

SCRIPTER NOTE:

Randomise the order of questions ETIAS, SHORTCUT, ARRIVE_EARLY_PLANE, and ARRIVE_EARLY_FERRY for each participant.

ETIAS

ASK IF ARM = 2,4 AND WHEN_ETIAS > 4 ('at least two weeks before departure')
MULTI CODE

Thinking back to the imaginary journey, [PIPE OPERATOR] asked you to apply for your visa early to ensure your application was approved on time. They said that the Travel Authorisation standard processing time for applications is 14 days from submission of your application, but it can take longer. You said [you would apply for your Travel Authorisation] [PIPE WHEN_ETIAS RESPONSE].

Why did you indicate [you would apply for your Travel Authorisation with less than 2 weeks before departure / you would not need a Travel Authorisation]? Please select all answers that apply.

- 1 I believed that my Travel Authorisation would be approved in less than 2 weeks
- 2 I did not see any advice that I should apply early
- 3 I thought that I could travel to France without a Travel Authorisation
- 4 I did not apply for a Travel Authorisation because I am an EU citizen
- 5 Other
- 6 None of the above *exclusive*
- 7 Don't know *exclusive*

SCRIPTER NOTE:

if ARM = 1,2, PIPE_OPERATOR = "ABC Airlines", if ARM = 3,4 = PIPE_OPERATOR = "ABC Ferries".
Randomise response options 1-4.

If WHEN_ETIAS = 5 or 6, **include** text "you would apply for your Travel Authorisation" and "you would apply for your Travel Authorisation with less than 2 weeks before departure" and show ONLY response options 1,2,5,6,7.

If WHEN_ETIAS = 7, **exclude** text "you would apply for your Travel Authorisation" and include "you would not need a Travel Authorisation" and show ONLY response options 3,4,5,6,7.

SHORTCUT

ASK IF Q008 – Traffic = "2 – Take the new route going through a residential area" and ARM = 2 or 4.
MULTI CODE

During the imaginary journey, you chose to take the new route that saved you 15 minutes and went through a residential area. [PIPE OPERATOR] advised not to take minor routes as it could create additional delays to your journey.

Why did you choose to take this new route? Please select all answers that apply.

- 1 I did not believe that using residential roads would cause me additional delays
- 2 I did not see any advice from [PIPE OPERATOR] to avoid using minor routes
- 3 I thought that the potential benefit of saving 15 minutes by using residential roads outweighed the risk of any possible delays
- 4 I did not remember the advice to stay on main roads
- 5 Other
- 6 None of the above *exclusive*

7 Don't know *exclusive*

Scripter note:

IF ARM = 1,2, PIPE_OPERATOR = "ABC Airlines", IF ARM = 3,4 = PIPE_OPERATOR = "ABC Ferries".

Randomise presentation order of responses 1-4.

ARRIVE_EARLY_PLANE

ASK IF = REVISED_TIME < (earlier than) 11:30am AND ARM = 2
MULTI CODE

During the imaginary journey, ABC Airlines informed you that arriving before bag drop opens may add to your waiting time and cause delays for other passengers. Bag drop opened at 11.30am. You said you would plan to arrive at the airport at [PIPE RESPONSE ARRIVAL TIME].

Why did you plan to arrive at the airport at that time? Please select all answers that apply.

- 1 I did not see the warning that arriving before bag drop opens may cause delays
- 2 I thought that my planned arrival time was after the bag drop opened
- 3 I did not believe that arriving before the bag drop opened would add to my waiting time
- 4 I wanted to arrive before bag drop opened to leave plenty of time before my flight
- 5 I thought that other passengers would arrive before bag drop opened
- 6 I did not believe that arriving before the bag drop opened would cause delays for other passengers
- 7 I usually aim to arrive earlier than the airline advises
- 8 Other
- 9 None of the above *exclusive*
- 10 Don't know *exclusive*

Scripter note: randomise presentation order of responses 1-7

ARRIVE_EARLY_FERRY

ASK IF = REVISED_TIME < (earlier than) 12:30pm AND ARM = 4
MULTI CODE

During the imaginary journey, ABC Ferries informed you that arriving more than one and a half hours before your departure time may lead to a longer wait or cause you to be turned away. Your departure time was 2:00pm. You said you would plan to arrive at the ferry at [PIPE RESPONSE Q005 – ARRIVAL TIME].

Why did you plan to arrive at the port at that time? Please select all answers that apply.

- 1 I did not see the warning that arriving early may cause me to be turned away
- 2 I thought that my planned arrival time was within one and a half hours of departure
- 3 I did not believe that I would be turned away if I arrived early
- 4 I would usually aim to arrive earlier than the ferry operator advises
- 5 I planned to arrive before 12:30pm to leave plenty of time before my ferry
- 6 Other
- 7 None of the above *exclusive*
- 8 Don't know *exclusive*

Scripter note: randomise presentation order of responses 1-5

INTRO_PREFERENCES

ASK ALL
SINGLE CODE

Now, two questions about your preferences for staying informed when travelling abroad in real life.

1 Continue

SOURCEADVICE

ASK ALL

SINGLE CODE

When planning your journey to the [hub], who would you most like to send you advice on travelling to the [hub]?

- 1 [FILL1]
- 2 [FILL2]
- 3 The UK Government
- 4 Friends or family
- 5 Travel agent
- 6 Other travellers
- 7 Someone else, please specify
- 8 I don't know
- 9 I don't mind

SCRIPTER NOTE:

If ARM = 1,2 then:

- [hub] = "airport"
- [mode] = "plane"
- [FILL1] = "The airline operator"
- [FILL2] = "The airport"

If ARM = 3,4 then:

- [hub] = "port"
- [mode] = "ferry"
- [FILL1] = "The ferry operator"
- [FILL2] = "The ferry port"

Please randomise the order of options 1, 2, 3, 4, 5, and 6.

SOURCEROUTE

ASK ALL

SINGLE CODE

Once you are on your way to the [hub], who would you most like to send you information about disruption or delays to your [trip]?

- 1 [FILL1]
- 2 [FILL2]
- 3 The UK Government
- 4 Friends or family
- 5 Travel agent
- 6 Other travellers
- 7 Someone else, please specify
- 8 I don't know
- 9 I don't mind

SCRIPTER NOTE:

If ARM = 1,2 then:

- [hub] = "airport"
- [mode] = "plane"
- [FILL1] = "The airline operator"
- [FILL2] = "The airport"

If ARM = 3,4 then:

- [hub] = "port"
- [mode] = "ferry"
- [FILL1] = "The ferry operator"
- [FILL2] = "The ferry port"

Please randomise the order of options 1, 2, 3, 4, 5, and 6.

INTRO_DEMOGRAPHICS

ASK ALL

SINGLE CODE

Finally, some questions about you and your experiences of travelling abroad.

1 Continue

CAR_USE

SHOW TO ALL

MULTI CODE

Which of these statements apply to you?

Please select all that apply.

- 1 I hold a full driving licence valid in the United Kingdom to drive a car
- 2 A member of my household holds a full driving licence valid in the United Kingdom to drive a car
- 3 I, or a member of my household, at present owns or has continuous use of a car
- 4 None of the above **exclusive**

CHILDREN

ASK ALL

SINGLE CODE

Do you have any children under 5?

- 1 Yes
- 2 No

DISABILITYPRE

SHOW TO ALL

SINGLE CODE

The next question of this survey is about health conditions, which is considered sensitive data. It will be used for data classification purposes only. It will remain confidential in line with our privacy policy.

Do you agree to answer this question on this basis? Please feel free to say, "No, I do not agree"

- 1 Yes, I agree

2 No, I do not agree

DISABILITY1

ASK IF DISABILITYPRE = 1 "Yes, I agree"

SINGLE CODE

Do you have any physical or mental health conditions or illnesses lasting or expected to last 12 months or more?

- 1 Yes
- 2 No
- 3 Prefer not to say

DISABILITY2

ASK IF DISABILITY1 = 1 "Yes"

SINGLE CODE

Do any of your conditions or illnesses reduce your ability to carry out day-to-day activities?

- 1 Yes, a lot
- 2 Yes, a little
- 3 Not at all
- 4 Prefer not to say

TRAVELEXP

SHOW IF SCREENER_PLANE = 1 'Yes' or SCREENER_FERRY = 1 'Yes'

SINGLE CODE

On average, how often do you travel abroad by *[mode]*?

- 1 Less than once a year
- 2 Once a year
- 3 2 – 3 times a year
- 4 4 – 5 times a year
- 5 More than 6 times a year

SCRIPTERS NOTE:

If ARM = 1,2, *[mode]* = 'plane' and *[hub]* = 'airport'.

If ARM = 3,4, *[mode]* = 'ferry' and *[hub]* = 'port'.

LIKELIHOOD

SHOW TO ALL

SINGLE CODE

How likely or unlikely are you to travel internationally by *[mode]* from a UK *[hub]* in the next 2 years?

- 1 Very likely
- 2 Likely
- 3 Unlikely
- 4 Very unlikely
- 5 Don't know

SCRIPTERS NOTE:

If ARM = 1,2, [mode] = 'plane' and [hub] = 'airport'.
If ARM = 3,4, [mode] = 'ferry' and [hub] = 'port'.

DISRUPTION

SHOW IF SCREENER_PLANE = 1 'Yes' or SCREENER_FERRY = 1 'Yes'
SINGLE CODE

You said you last travelled internationally by [mode] in [TEXTFILL RESPONSE FROM TRAVELREC].

Have you ever experienced disruption when travelling abroad by [mode] from a UK [hub]?

- 1 Yes
- 2 No
- 3 Don't know

SCRIPTERS NOTE:

If ARM = 1,2, [mode] = 'plane' and [hub] = 'airport'.
If ARM = 3,4, [mode] = 'ferry' and [hub] = 'port'.

Randomise the order of options 1 "Yes" and 2 "No"

DISRUPTIONREC

SHOW IF DISRUPTION = 1 "Yes"
SINGLE CODE

What year did you last experience travel disruption when travelling abroad by [mode] from a UK [hub]?

- 1 2024
- 2 2023
- 3 2022
- 4 2021
- 5 2020
- 6 2019 or before
- 7 I don't remember

SCRIPTERS NOTE:

If ARM = 1,2, [mode] = 'plane' and [hub] = 'airport'.
If ARM = 3,4, [mode] = 'ferry' and [hub] = 'port'.

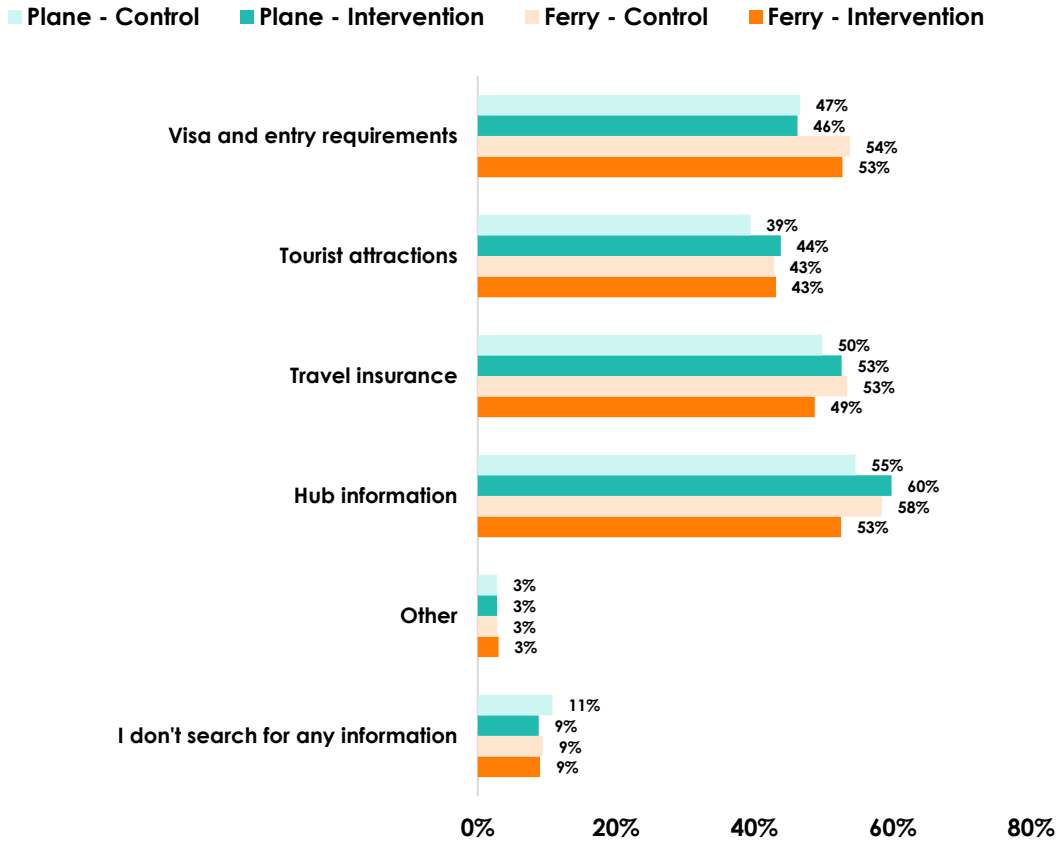
Hide 1 "2024" if TRAVELREC > 1 "2024"
Hide 2 "2023" if TRAVELREC > 2 "2023"
Hide 3 "2022" if TRAVELREC > 3 "2022"
Hide 4 "2021" if TRAVELREC > 4 "2021"
Hide 5 "2021" if TRAVELREC > 5 "2020"

Appendix K: Additional Participant Responses Outcomes

Additional Journey Outcomes

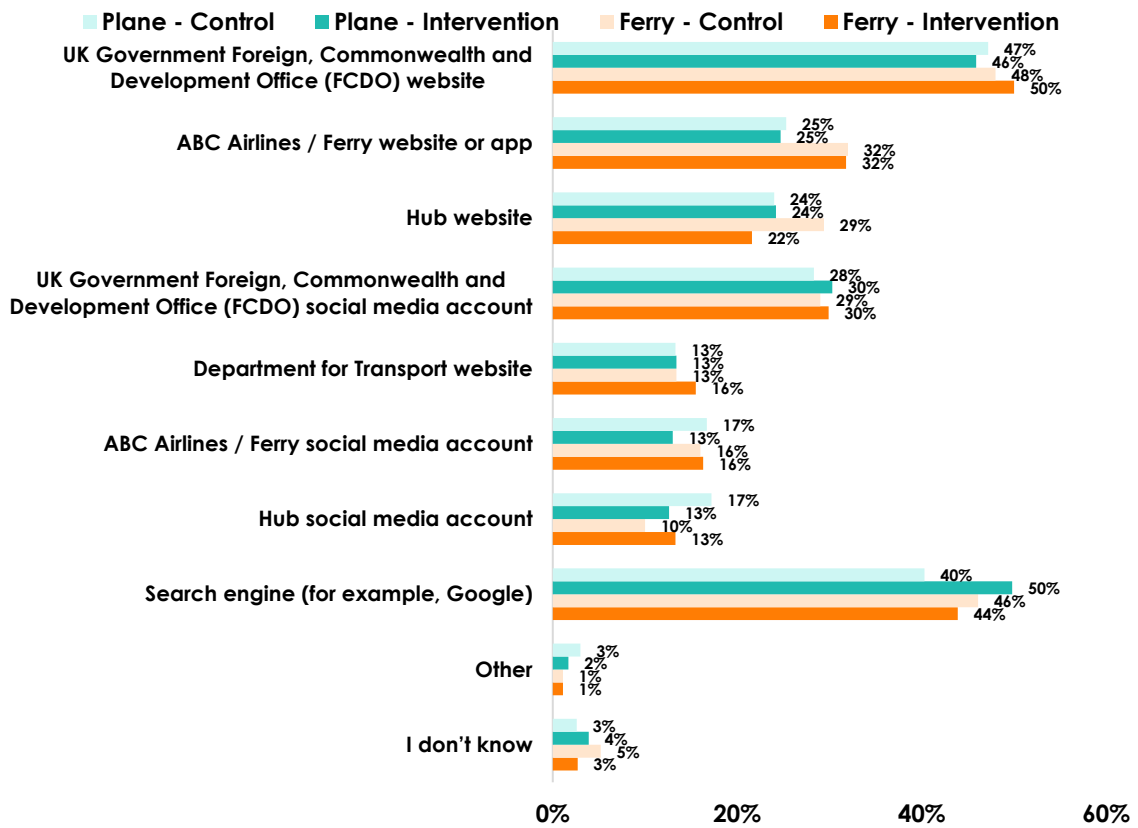
Journey Stage 1

Appendix K - Figure 1 - Responses to 'INFO_SEARCH'¹



¹ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

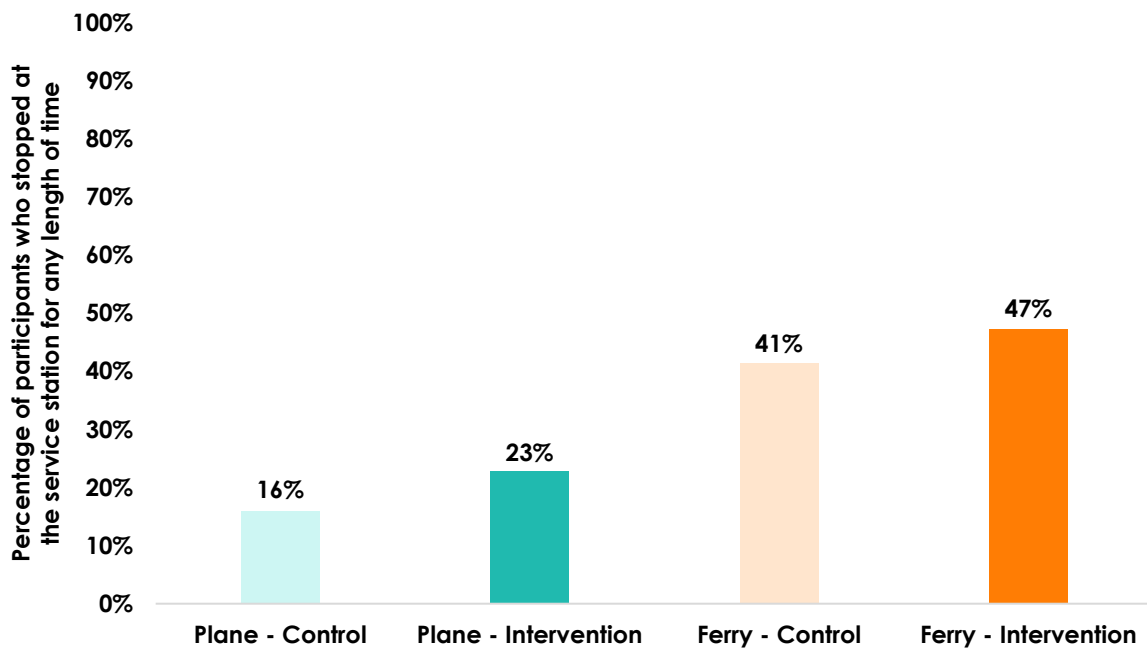
Appendix K - Figure 2 Responses to 'WHERE_SEARCH'²



² The base sizes for this question were: Plane – Control: 233, Plane – Intervention: 234, Ferry – Control: 269, Ferry Intervention: 264.

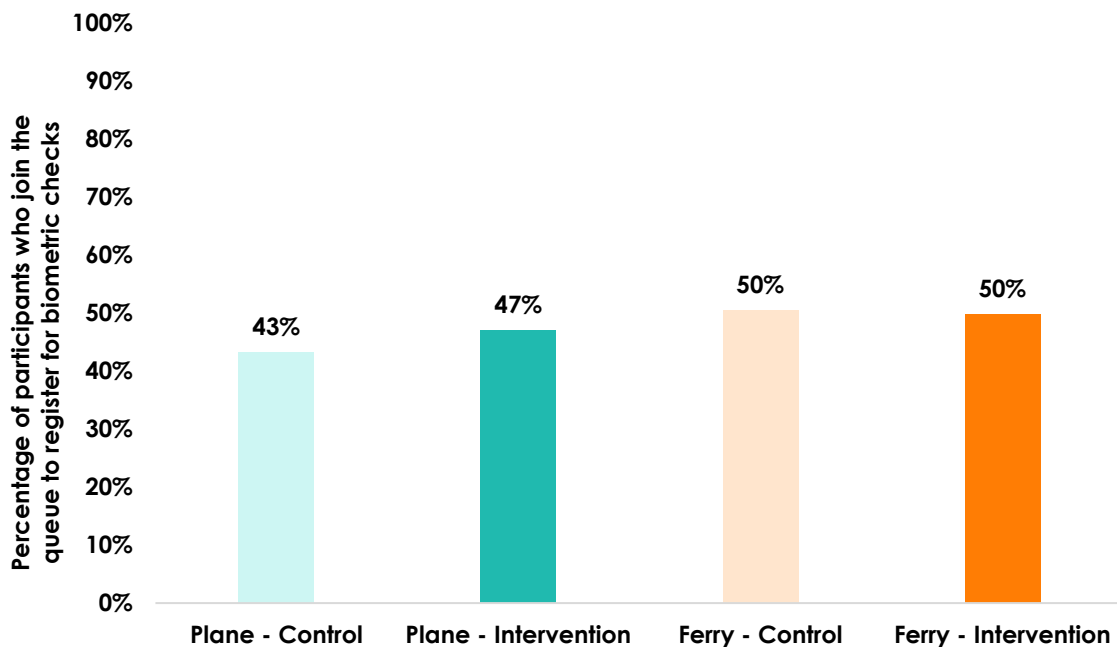
Journey Stage 5

Appendix K - Figure 3 - Responses to 'SERVICE_STOP'³



Journey Stage 7

Appendix K - Figure 4 - Responses to CHECK_IN_PLANE/CHECK_IN_FERRY⁴

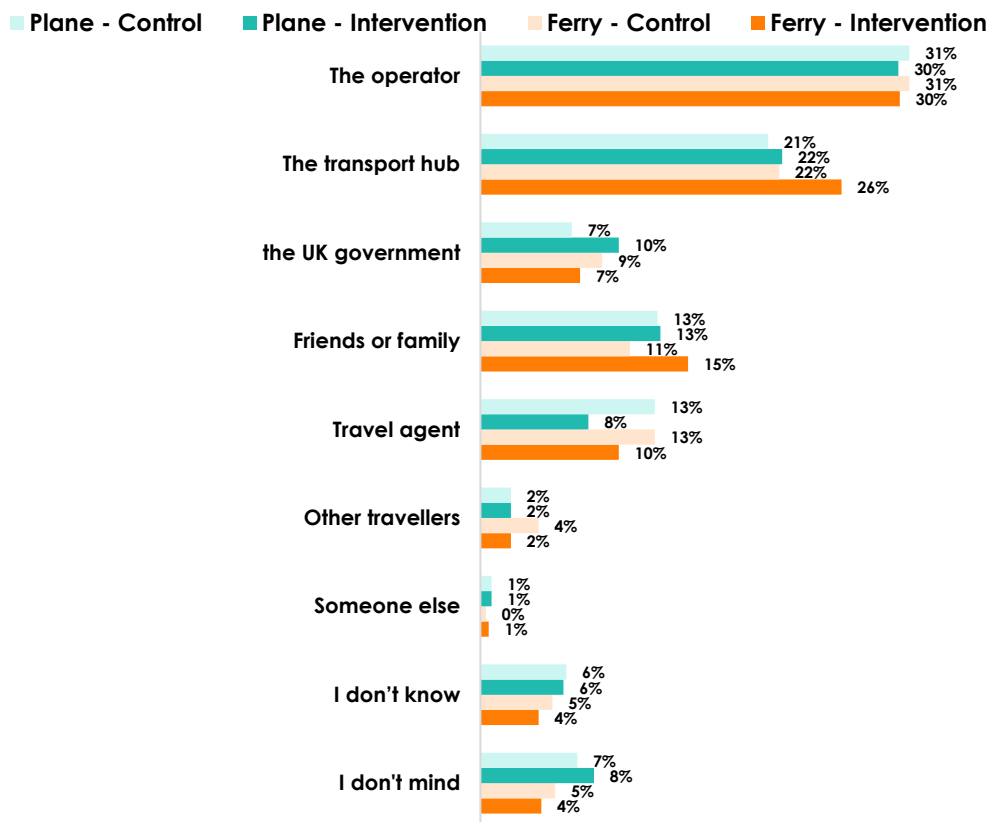


³ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

⁴ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

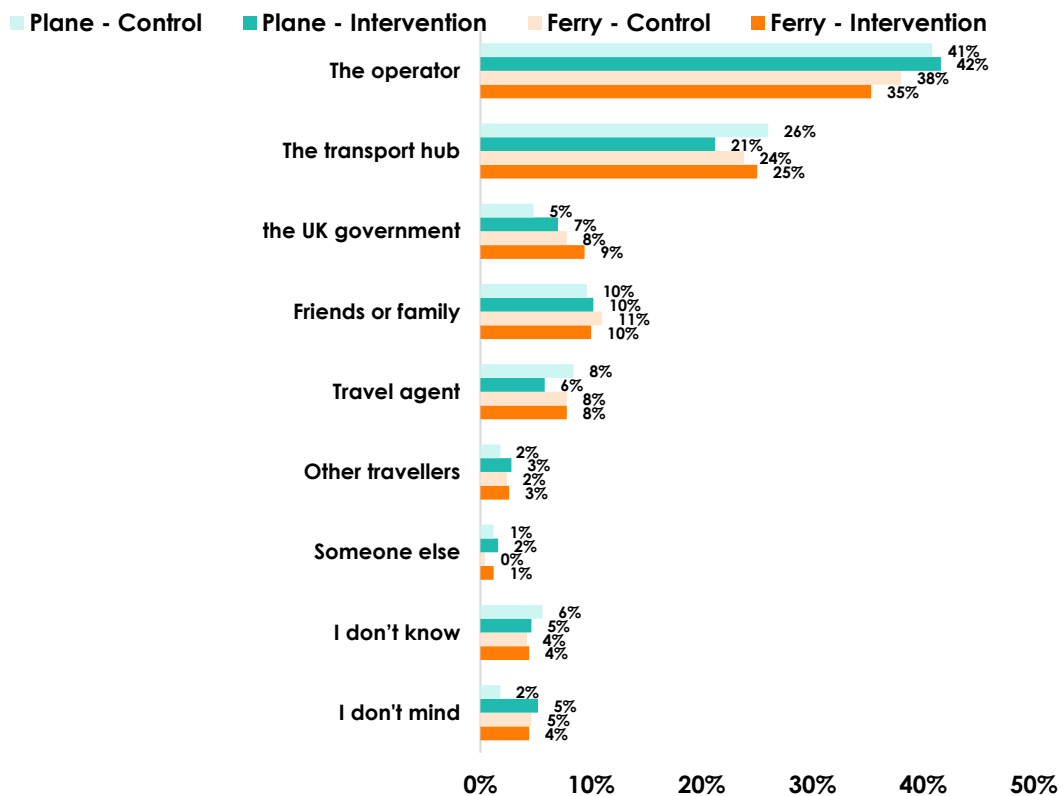
Responses to post-trial questionnaire

Appendix K - Figure 5 - Responses to 'SOURCEADVICE'⁵



⁵ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

Appendix K - Figure 6 - Responses to 'SOURCROUTE'⁶



Appendix K - Table 1 – RESPONSES TO 'CAR_USE'⁷

	"I hold a full driving licence valid in the United Kingdom to drive a car"	"A member of my household holds a full driving licence valid in the United Kingdom to drive a car"	"I, or a member of my household, at present owns or has continuous use of a car"	"None of the above"
Plane - Control	73%	29%	19%	11%
Plane - Intervention	73%	33%	21%	8%
Ferry - Control	73%	32%	22%	10%
Ferry - Intervention	75%	33%	22%	8%

⁶ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

⁷ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

Appendix K - Table 2: Responses to 'CHILDREN'⁸

	Has at least 1 child under 5
Plane - Control	24%
Plane - Intervention	24%
Ferry - Control	25%
Ferry - Intervention	28%

Appendix K - Table 3 - Responses to 'DISABILITY'⁹

	'Yes' (Reported having a disability)	'No' (Reported not having a disability)	'Prefer not to say' (or refused question at an earlier stage)
Plane - Control	31%	64%	5%
Plane - Intervention	29%	66%	5%
Ferry - Control	29%	67%	5%
Ferry - Intervention	30%	65%	5%

⁸ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

⁹ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501. Excluded participants are shown under 'Not eligible for question'. The number of eligible participants per arm was: Plane – Control: 481, Plane – Intervention: 487, Ferry – Control: 488, Ferry Intervention: 481.

Appendix K - Table 4 - Responses to 'DISASBILITY2'¹⁰

	'Yes, a lot'	'Yes, a little'	'Not at all'	'Prefer not to say' (or refused question at an earlier stage)
Plane - Control	12%	13%	6%	69%
Plane - Intervention	11%	15%	4%	71%
Ferry - Control	11%	13%	4%	72%
Ferry - Intervention	11%	14%	5%	71%

Appendix K - Table 5 – Responses to 'TRAVELEXP'¹¹

	'Less than once a year'	'Once a year'	'2-3 times per year'	'4-5 times per year'	'More than 6 times a year'	Not eligible for question
Plane - Control	26%	27%	22%	6%	2%	17%
Plane - Intervention	24%	27%	23%	5%	2%	19%
Ferry - Control	16%	13%	9%	2%	1%	58%
Ferry - Intervention	20%	14%	9%	3%	1%	54%

¹⁰ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501. Excluded participants are shown under 'Not eligible for question'. The number of eligible participants per arm was: Plane – Control: 155, Plane – Intervention: 146, Ferry – Control: 488, Ferry Intervention: 481.

¹¹ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501. Excluded participants are shown under 'Not eligible for question'. The number of eligible participants per arm was: Plane – Control: 416, Plane – Intervention: 405, Ferry – Control: 210, Ferry – Intervention: 231.

Appendix K - Table 6 - Responses to 'LIKELIHOOD'¹²

	'Very likely'	'Likely'	'Unlikely'	'Very unlikely'	'Don't know'
Plane - Control	52%	27%	9%	7%	6%
Plane - Intervention	49%	29%	9%	5%	8%
Ferry - Control	23%	31%	25%	8%	13%
Ferry - Intervention	24%	31%	23%	10%	13%

Appendix K - Table 7 - Responses to DISRUPTION¹³

	'Yes' (Reported experiencing disruption)	'No' (Reported not having experienced disruption)	'Don't know'	Not eligible for the question
Plane - Control	34%	48%	2%	17%
Plane - Intervention	34%	45%	2%	19%
Ferry - Control	16%	25%	1%	58%
Ferry - Intervention	20%	25%	1%	54%

¹² The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

¹³ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501. Excluded participants are shown under 'Not eligible for question'. The number of eligible participants per arm was: Plane – Control: 416, Plane – Intervention: 405, Ferry – Control: 210, Ferry – Intervention: 231.

Appendix K - Table 8 - Responses to DISRUPTIONREC¹⁴

	'2024'	'2023'	'2022'	'2021'	'2020'	'2019 or before'	'I don't remember'	Not eligible for question
Plane - Control	1%	11%	6%	2%	4%	10%	3%	66%
Plane - Intervention	1%	11%	3%	2%	2%	12%	3%	66%
Ferry - Control	1%	5%	3%	2%	2%	6%	1%	84%
Ferry - Intervention	1%	5%	3%	2%	2%	6%	1%	80%

¹⁴ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501. Excluded participants are shown under 'Not eligible for question'. The number of eligible participants per arm was: Plane – Control: 168, Plane – Intervention: 170, Ferry – Control: 81, Ferry Intervention: 100.

Comparison of primary outcomes across different demographic sub-groups

In this section, we present participant responses to the 4 primary outcomes of this study ('ETIAS_WHEN', REVISED_TIME, 'SHORTCUT' and 'QUEUE) stratified by different demographic variables. Responses were split according to:

1. Whether participants had children under the age of 5
2. Whether participants reported having a disability (whether they reported a disability, regardless of the severity).
3. Participants age group (18-34, 35-44,45-64)
4. Whether participants were experienced travelers (reported travelling via the mode at least 2-3 times per year, or more).

Travel Authorisation Application

In tables 9-12, we report the percentage of participants who applied for the Travel Authorisation at least 2 weeks prior to departure, by arm and demographic sub-group.

Appendix K - Table 9 - ETIAS_WHEN x CHILDREN¹⁵

	Children under 5	No children under 5
Plane – Control	88%	96%
Plane – Intervention	91%	93%
Ferry – Control	92%	94%
Ferry – Intervention	90%	93%

Appendix K - Table 10 - ETIAS_WHEN x DISABILITY¹⁶

	No reported disability	Reported disability
Plane – Control	94%	94%
Plane – Intervention	93%	91%
Ferry – Control	94%	95%
Ferry – Intervention	90%	96%

Appendix K - Table 11 - ETIAS_WHEN x AGE¹⁷

	18-34	35-44	45-64
Plane – Control	90%	96%	96%
Plane – Intervention	92%	90%	94%
Ferry – Control	92%	92%	96%
Ferry – Intervention	89%	94%	94%

¹⁵ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

¹⁶ Note, 64 participants preferred not to answer DISABILITY_PRE and were not included in this breakdown. The base sizes for this question were: Plane – Control: 481, Plane – Intervention: 487, Ferry – Control: 488, Ferry – Intervention: 481.

¹⁷ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

Appendix K - Table 12 - ETIAS_WHEN x TRAVELEXP¹⁸

	Experienced traveller	Inexperienced traveller
Plane – Control	94%	94%
Plane – Intervention	92%	92%
Ferry – Control	87%	94%
Ferry – Intervention	90%	92%

Early Arrival

Early Arrival x Children under 5

In tables 13-16, we report the percentage of participants who arrived earlier than requested by the operator, by arm and demographic sub-group.

Appendix K - Table 13 – Early Arrival x CHILDREN

	Children under 5	No children under 5
Plane – Control	90%	83%
Plane – Intervention	83%	72%
Ferry – Control	95%	84%
Ferry – Intervention	88%	79%

Appendix K - Table 14 – Early Arrival x DISABILITY¹⁹

	No reported disability	Reported disability
Plane – Control	84%	85%
Plane – Intervention	75%	71%
Ferry – Control	85%	90%
Ferry – Intervention	79%	87%

Appendix K - Table 15 – Early Arrival x AGE²⁰

	18-34	35-44	45-64
Plane – Control	88%	86%	82%
Plane – Intervention	82%	81%	66%
Ferry – Control	93%	88%	82%
Ferry – Intervention	84%	83%	78%

¹⁸ Note, 739 participants were not eligible for this question given their responses to either PLANE_SCREENERS and/or FERRY_SCREENERS. This is unequally distributed across arms: Plane – Control: 84, Plane – Intervention: 95, Ferry – Control: 290, Ferry – Intervention: 270. Estimates are likely to be unreliable given they are based on small, unequal sample sizes.

¹⁹ Note, 64 participants preferred not to answer DISABILITY_PRE and were not included in this breakdown. The base sizes for this question were: Plane – Control: 481, Plane – Intervention: 487, Ferry – Control: 488, Ferry – Intervention: 481.

²⁰ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

Appendix K - Table 16 – Early Arrival x TRAVELEXP²¹

	Experienced traveller	Inexperienced traveller
Plane – Control	88%	84%
Plane – Intervention	81%	77%
Ferry – Control	98%	88%
Ferry – Intervention	92%	77%

Shortcut

In tables 17-20, we report the percentage of participants who opted to stay on the main road, rather than take the shortcut, by arm and demographic sub-group.

Appendix K - Table 17 – Shortcut x CHILDREN²²

	Children under 5	No children under 5
Plane – Control	60%	39%
Plane – Intervention	63%	44%
Ferry – Control	54%	42%
Ferry – Intervention	64%	56%

Appendix K - Table 18 – Shortcut x DISABILITY²³

	No reported disability	Reported disability
Plane – Control	39%	52%
Plane – Intervention	47%	51%
Ferry – Control	42%	54%
Ferry – Intervention	52%	70%

Appendix K - Table 19 – Shortcut x AGE²⁴

	18-34	35-44	45-64
Plane – Control	48%	42%	40%
Plane – Intervention	55%	42%	46%
Ferry – Control	49%	44%	43%
Ferry – Intervention	60%	56%	58%

²¹ Note, 739 participants were not eligible for this question given their responses to either PLANE_SCREENERS and/or FERRY_SCREENERS. This is unequally distributed across arms: Plane – Control: 84, Plane – Intervention: 95, Ferry – Control: 290, Ferry – Intervention: 270. Estimates are likely to be unreliable given they are based on small, unequal sample sizes.

²² The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

²³ Note, 64 participants preferred not to answer DISABILITY_PRE and were not included in this breakdown. The base sizes for this question were: Plane – Control: 481, Plane – Intervention: 487, Ferry – Control: 488, Ferry – Intervention: 481.

²⁴ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

Appendix K - Table 20 – SHORTCUT x TRAVELEXP²⁵

	Experienced traveller	Inexperienced traveller
Plane – Control	46%	42%
Plane – Intervention	46%	50%
Ferry – Control	63%	52%
Ferry – Intervention	67%	57%

Acceptability of queues

In tables 21-24, we report the mean acceptability of delays due to queues at the hub, by arm and demographic sub-group.

Appendix K - Table 21 – Queue x CHILDREN²⁶

	Children under 5 M (sd)	No children under 5 M (sd)
Plane – Control	4.02 (2.04)	3.06 (1.55)
Plane – Intervention	3.59 (1.87)	3.17 (1.55)
Ferry – Control	3.76 (1.86)	3.65 (1.53)
Ferry – Intervention	3.93 (1.90)	3.66 (1.55)

Appendix K - Table 22 – Queue x DISABILITY²⁷

	No reported disability M (sd)	Reported disability M (sd)
Plane – Control	3.30 (1.71)	3.32 (1.81)
Plane – Intervention	3.37 (1.65)	3.03 (1.63)
Ferry – Control	3.83 (1.55)	3.30 (1.72)
Ferry – Intervention	3.82 (1.59)	3.53 (1.77)

Appendix K - Table 23 – Queue x AGE²⁸

	18-34 M (sd)	35-44 M (sd)	45-64 M (sd)
Plane – Control	3.65 (1.83)	3.62 (1.84)	2.84 (1.48)
Plane – Intervention	3.57 (1.73)	3.44 (1.64)	2.93 (1.51)
Ferry – Control	3.68 (1.70)	3.90 (1.67)	3.56 (1.52)
Ferry – Intervention	3.85 (1.90)	3.72 (1.58)	3.64 (1.44)

²⁵ Note, 739 participants were not eligible for this question given their responses to either PLANE_SCREENERS and/or FERRY_SCREENERS. This is unequally distributed across arms: Plane – Control: 84, Plane – Intervention: 95, Ferry – Control: 290, Ferry – Intervention: 270. Estimates are likely to be unreliable given they are based on small, unequal sample sizes.

²⁶ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

²⁷ Note, 64 participants preferred not to answer DISABILITY_PRE and were not included in this breakdown. The base sizes for this question were: Plane – Control: 481, Plane – Intervention: 487, Ferry – Control: 488, Ferry – Intervention: 481.

²⁸ The base sizes for this question were: Plane – Control: 500, Plane – Intervention: 500, Ferry – Control: 500, Ferry Intervention: 501.

Appendix K - Table 24 – Queue x TRAVELEXP²⁹

	Experienced traveller M (sd)	Inexperienced traveller M (sd)
Plane – Control	3.28 (1.83)	3.29 (1.71)
Plane – Intervention	3.36 (1.67)	3.17 (1.67)
Ferry – Control	4.24 (1.98)	3.63 (1.66)
Ferry – Intervention	3.86 (2.03)	3.72 (1.76)

²⁹ Note, 739 participants were not eligible for this question given their responses to either PLANE_SCREENERS and/or FERRY_SCREENERS. This is unequally distributed across arms: Plane – Control: 84, Plane – Intervention: 95, Ferry – Control: 290, Ferry – Intervention: 270. Estimates are likely to be unreliable given they are based on small, unequal sample sizes.

Appendix L: Model tables

Table 1: Model-based estimates of the likelihood of applying for the 'Travel Authorisation' at least 2 weeks prior to departure (Plane)

Plane	Log odds	Standard Error	z-value	<i>p</i> _{adj}
Intercept	2.717	.185	14.65	< .001
Plane - Intervention	-.105	.257	-.410	1

Note: Plane - Control is the reference level to which Plane – Intervention is compared. Reported P values were corrected to adjust for multiple comparisons (4 comparisons) using a Bonferroni correction.

Table 2 Model-based estimates of the likelihood of applying for the 'Travel Authorisation' at least 2 weeks prior to departure (Ferry)

Ferry	Log odds	Standard Error	z-value	<i>p</i> _{adj}
Intercept	2.683	.183	14.682	< .001
Ferry - Intervention	-.133	.252	-.528	1

Note: Ferry - Control is the reference level to which Ferry – Intervention is compared to. Reported P values were corrected to adjust for multiple comparisons (4 comparisons) using a Bonferroni correction.

Table 3 Model-based estimates of the likelihood of staying on the main road (Plane)

Plane	Log odds	Standard Error	z-value	<i>p</i> _{adj}
Intercept	-.257	.090	-2.854	0.017
Plane - Intervention	-.185	.127	1.459	.578

Note: Plane - Control is the reference level to which Plane – Intervention is compared to. Reported P values were corrected to adjust for multiple comparisons (4 comparisons) using a Bonferroni correction.

Table 4: Model-based estimates of the likelihood of staying on the main road (Ferry)

Ferry	Log odds	Standard Error	z-value	<i>p</i> _{adj}
Intercept	-.193	.090	-2.143	.128
Ferry - Intervention	.527	.128	4.130	< .001

Note: Ferry - Control is the reference level to which Ferry – Intervention is compared to. Reported P values were corrected to adjust for multiple comparisons (4 comparisons) using a Bonferroni correction.

Table 5: Model-based estimates of the likelihood of arriving earlier than specified by operator advice (Plane)

Plane	Log odds	Standard Error	z-value	<i>p</i> _{adj}
Intercept	1.719	.125	13.800	< .001
Plane - Intervention	-.631	.162	-3.904	< .001

Note: Plane - Control is the reference level to which Plane – Intervention is compared to. Reported P values were corrected to adjust for multiple comparisons (4 comparisons) using a Bonferroni correction.

Table 6: Model-based estimates of the likelihood of arriving earlier than specified by operator advice (Ferry)

Ferry	Log odds	Standard Error	z-value	<i>p</i> _{adj}
Intercept	1.901	.133	14.295	< .001
Ferry - Intervention	-.435	.175	-2.482	.052

Note: Ferry - Control is the reference level to which Ferry – Intervention is compared to. Reported P values were corrected to adjust for multiple comparisons (4 comparisons) using a Bonferroni correction.

Table 7: Model-based estimates of the reported acceptability of delays due to queues (Plane)

Plane	Log odds	Standard Error	z-value	<i>p</i> _{adj}
Plane - Intervention	.015	.112	.135	1

Note: Plane - Control is the reference level to which Plane – Intervention is compared to. Reported P values were corrected to adjust for multiple comparisons (4 comparisons) using a Bonferroni correction.

Table 8: Model-based estimates of the reported acceptability of delays due to queues (Ferry)

Ferry	Log odds	Standard Error	z-value	<i>p</i> _{adj}
Ferry - Intervention	.081	.111	.725	1

Note: Ferry - Control is the reference level to which Ferry – Intervention is compared to. Reported P values were corrected to adjust for multiple comparisons (4 comparisons) using a Bonferroni correction.



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