

**June 2022**

# **Future Flight Challenge – Mini Public Dialogue Appendix**

**A Sciencewise report  
prepared for the Future  
Flight Challenge and UK  
Research and Innovation**

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This report contains images of materials created for the dialogue by The Liminal Space.



The Liminal Space

sciencewise



UK Research  
and Innovation



# Appendix A – Sample and recruitment

## General public sample

Demographic		Quota range	Achieved quota
Gender	Female	34 - 38	39
	Male	34 - 38	38
Age	16 to 24	16 - 20	16
	25 to 44	16 - 20	20
	45 to 64	16 - 20	25
	65+	16 - 20	15
Ethnicity	Asian/British	13 - 15	16
	Black/British	6 - 8	7
	Mixed/other	6 - 8	3
	White British / Irish / other white	41 - 46	51
Household income	<£26k	28 - 30	18
	£26-£51k	20 - 22	27
	£52-99k	14 - 16	29
	£100k+	6 - 8	3
Nation and urbanity / rurality	London and West Midlands (urban)	24	26
	Lancashire Towns (towns)	12	15
	Dartmoor (rural)	6	6
	County Down (towns)	4	4

Demographic		Quota range	Achieved quota
	County Fermanagh and County Antrim (rural)	6	6
	Inverclyde (towns)	4	5
	Scottish islands and Highlands (rural)	6	6
	Welsh Valleys (towns)	4	4
	Powys (rural)	6	6

### Special interest group sample

Categories		Quota range	Achieved sample
Workers facing potential changes	Police	2 - 4	1
	Aviation impact sector		1
	Emergency responder		1
Workers facing potential displacement	Logistics worker	2 - 4	1
	Humanitarian aid worker		1
Potential users / those who could benefit	Remote NHS user	2 - 4	1
	Infrastructure surveyor		1
Potential non-users / impacted groups	People with experience of state surveillance / military conflict	2 - 4	1
	Civil liberties expert		1
	Environmental crime officer		1
	Recreational air space user		2

<b>Categories</b>	<b>Quota range</b>	<b>Achieved sample</b>
TOTAL	12	11

# Appendix B – Skyways Code suggestions (full list) and glossary

## Emergency services future flight:

- Emergency vehicles exempt from most rules:
  - Can go at any speed
  - Can fly at any time (if in an emergency)
  - Allowed through no-fly zones (in an emergency)

## Flight path restrictions:

- Height and distance :
  - Height restrictions to be specified and enforced
  - Each vehicle type should have designated height restriction, i.e., drones, cargo and people never fly at same level
  - Height restrictions must be measured from ground level
  - Must be minimum distance rules between vehicles (e.g., drones not in ½ meter of one another)
  - Min and max flying speeds applicable to different vehicles OR all fly the same (as done by software and control)
  - Different speed limits in certain areas (e.g., residential areas, areas with wildlife/livestock)

## Governance:

- There should be a governing body that controls future flight:
  - Manages licensing, with different licenses for different vehicle types.
  - Manages training (must be specific for vehicle types, thorough, and refreshed regularly).
  - Ensures vehicles fit to fly: 'drone MOT'.
  - Ensures compliance with rules, and managing policing of future flight vehicles

## Minimising risk of accidents:

- Large cargo vehicles must be routed to avoid flying over very populated areas, and must not transport any dangerous goods (e.g., bricks). If doing so, this must only be at specific times (e.g., between 1am and 4am when there is less people)

- There must be accountability if an accident occurs.
- All vehicles must be thoroughly tested before being rolled out.
- There should be rules to limit how long pilots can fly for, with mandatory break and rest times.
- Regular testing of people operating vehicles e.g. sight, mental ability.
- Disaster plans for if things go wrong – e.g. drones fall and hit car. Coordinated disaster plans e.g. drone and ground police
- Regulation
  - Insurance must be in place
  - Qualification standards need to be in place
  - Air shuttle and air taxi only operate under certain wind speed – different safety rules for vehicle types.
  - Abide by sensors - e.g. height and congestion safety
  - Human oversight needs to be ensured
  - Vehicles should be permanently monitoring and tracking
  - Vehicles must be regularly and rigorously checked and certified e.g. MOT
  - Vehicles must have the correct license e.g. drone driver must not have a taxi license
  - Calls should be monitored for training and quality purposes
  - Vehicles must be charged – regular battery warnings and checks must take place
  - Learner pilots should start with simulator training and then move on to segregated flight paths before the existing flight paths
  - Drone technologies not flying at night
  - Should be limits on density of delivering/flying in one area

### **Noise regulation**

- Strict max decibels for all vehicle types.
- No-fly time limits e.g. 9pm to 7am, except in emergencies – no noise.
- Limit the frequency of smaller drones – limited slots per day overall
- More cargo/haulage at night

### **Environmental regulation**

- No flying in secure areas – hospitals, police stations, sites of interest (e.g. landmarks, historic buildings, places with police guards), airports, prisons, government buildings, SSSI
- Low flying drones should not fly in areas with wildlife parks/areas with protected species, farmland / where there's lots of animals
- Risk to life of animals should be minimised.
- Minimum flight heights – based on building height, but also rural v urban? Higher for less noise pollution, but higher a problem for migratory birds... and some need to be low to delivery
- No fly zones over (traditional) airports, ports, SSSIs, farms, environmental sites, power stations.
- Limit the frequency of smaller drones – limited slots per day overall - for noise, safety, appearance of skies and bird life.
- Abide by animal protection policy including insects and birds
- You must have a licence and to get a licence a company must be able to demonstrate their proposal is at least as sustainable as existing solutions
- Rules to take account off-setting of emissions in overall evaluation of environmental impact.
- Shut down services if limit on emissions reached.
- Carbon comparison alternatives

### **Accessibility**

- Lower priority for drones (unless emergency use).
- Continuity with existing infrastructure
- Air taxis / transport should be something everyone can benefit from (affordable and accessible to all) – like the TfL model (rules set centrally, no discrimination based on where you live)
- Employment in the new sector should have opportunities for all
- Offer new jobs to people made unemployed from the change
- Local authorities should have services for community
- Access to all, for all ages, which is not prohibitively expensive

### **Security**

- Manual override of future flight technologies in the event of a cyber attack
- No flying in areas that need to be secure – hospitals, police stations, sites of interest (e.g. landmarks, historic buildings, places with police guards), airports, prisons, government buildings, SSSI
- No fly zones over (traditional) airports, ports, SSSIs, farms, environmental sites, power stations.



- No fly zones near residential areas for privacy and safety reasons.
- Any cameras used purely for navigation, not allowed to film / record. [Delete recordings in certain conditions]
- All flights grounded upon warning of cyber attack
- There must be a security and mental fitness check for drivers e.g. similar to DBS
- Data /info collection and storage must abide by GDPR or similar framework
- Develop cybersecurity wholly new
- Geofencing in higher risk areas (e.g. airports, nuclear power plants, petrol stations)

## Glossary

Term	Definition
<b>Drones</b>	non-passenger/pilot carrying vehicles varying in size from small to large
<b>Advanced air mobility (flying taxis)</b>	Electrical vertical take-off and landing vehicles (eVTOLs) that provide short journeys for up to 10 people
<b>Regional air mobility (eco shuttles/planes)</b>	10+ person electric, hydrogen or hybrid aircraft providing short-medium range hops between fixed locations

# Appendix C – Dialogue materials

## Webinar – Discussion guide

Time	Activity	Questions and materials
18.30 - 18.55	<p><b>Set-up: Facilitators and speakers check-in</b></p> <p>25 mins</p>	<ul style="list-style-type: none"> <li>• Test link, mic, and camera.</li> <li>• Test who has the host/co-host function and ensure it is allocated to the right team member(s)</li> <li>• Change screen name to NAME – Org.</li> <li>• Check everyone is on the WhatsApp group for the webinar team to be able to ask questions, etc.</li> <li>• Meanwhile tech support is checking that all participants are able to join successfully</li> </ul>
18.55 - 19.00	<p><b>Participant check-in</b></p> <p>5 mins</p>	<p><b>Participants log into the online session</b></p> <ul style="list-style-type: none"> <li>• Participants encouraged to join the zoom session early to check-in and check that they can see and hear the webinar, and are able to type text into the questions box.</li> </ul>
19.00 - 19.20	<p><b>Introduction and current awareness</b></p> <p>20 mins</p>	<p><b>Ipsos Chair to give a warm welcome to the dialogue, the first part of the online dialogue</b></p> <ul style="list-style-type: none"> <li>• Introduce Ipsos.</li> <li>• Chair to explain who is here: over 70 people from across the UK (some of whom you will meet in the next workshop), Ipsos staff, experts from the Future Flight Team. commentators, any observers, and facilitators and notetakers.</li> <li>• Explain that this is the first part of the process, followed by a 3-hour workshop, a one-week online community, and another 3-hour workshop.</li> <li>• <b>Chair to summarise briefly what this dialogue is about, and highlight lack of public engagement and research on what the public thinks about flying taxis and how the UK's airspace might change more generally (dialogue aims to address this).</b></li> <li>• <b>Emphasise:</b> These different technologies don't exist in our skies yet, and we don't know how (or if!) they will. This is a real opportunity to hear what you, members of the public, feel is the right way for these technologies to develop, if you think they should at all.</li> <li>• We will be exploring opportunities and benefits as well as concerns and harms, together.</li> <li>• Chair to explain that a lot of information will be provided to participants over the course of the workshops, and to always ask or note down any questions/ queries and ask for clarification when needed. For this workshop, put any questions in the chat box.</li> <li>• Chair also to cover housekeeping <ul style="list-style-type: none"> <li>○ Don't zoom and multitask.</li> <li>○ If we lose connection to you at any point in the session [TECH SUPPORT] will call you to see if we can help bring you back in again</li> <li>○ We'll be recording for our own notes</li> <li>○ Confidentiality: we are interested in what you say in the chat box, not who said what. Your comments will not be attributed back to you in our report.</li> </ul> </li> </ul>

- We have shared materials with you by post. These may or may not have arrived yet, but please don't open them yet as that will spoil the surprise of the workshop!

**Ipsos Chair to explain that we're going to do some quick poll questions to see where the group is at before we hear from the experts. Chair reassures them that it's not a test, and that they'll learn more about this topic shortly.**

- Chair introduces test question to check that everyone can use Zoom's poll function effectively. Reading the question aloud, and showing on the screen.

Q: Which is your favourite?

- Cats
- Dogs
- Neither

- Tech support helps any people who are struggling to use the poll function. For anyone who is unable to do this, despite our attempts to assist them, the chair asks them to write their answers down on paper and we will reach out to them by email for their answers.
- Chair reveals results of the test poll question and moves onto the first formal question, reading this aloud and showing on the screen.

Q: Before today, how much, if anything, would you say you knew about drones?

- A great deal
- A fair amount
- Just a little
- Heard of, but know nothing about them
- Never heard of them

- Chair reveals the results, and asks people to type in the chat box **whether the level of awareness in the group was a surprise** or what they expected. Chair reads out some of the answers (e.g. "Jane says she is surprised how much people know as she's not seen many flying around in her neighbourhood")
- Chair moves onto the second question, reading this aloud and showing on the screen.

Q: Before today, how much, if anything, would you say you knew about flying taxis?

- A great deal
- A fair amount
- Just a little
- Heard of, but know nothing about them
- Never heard of them

- Chair reveals the results, and asks people to type in the chat box what the idea of a flying taxi brings to mind. Chair reads out some of the answers (e.g. "Mark thinks a flying taxi is something out of a science fiction film")

		<ul style="list-style-type: none"> <li>Chair moves onto the third formal question, reading this aloud and showing on the screen.</li> </ul> <p>Q: Before today, how much, if anything, would you say you knew about short-haul, electric or hydrogen regional planes?</p> <ul style="list-style-type: none"> <li>- A great deal</li> <li>- A fair amount</li> <li>- Just a little</li> <li>- Heard of, but know nothing about them</li> </ul> <ul style="list-style-type: none"> <li>Chair reveals the results, and asks people to type in the chat box <b>what they think about short haul planes, powered by electricity or hydrogen, transporting people between regions in the UK</b>. Chair reads out some of the answers (e.g. “Margaret says she heard something about hydrogen-powered planes, but she’s worried about how flammable they would be”)</li> </ul>
19.20 - 19.30	<p><b>Introduction to the Future Flight Challenge, air vehicles classes, and potential use cases</b></p> <p><b>10 mins</b></p>	<p><b>Presentation by Kerissa Khan</b></p> <p>Ipsos Chair introduces speaker, and asks participants to think of questions as they listen that they would like to ask them in the Q&amp;A session after.</p> <p>Key points to cover:</p> <ul style="list-style-type: none"> <li>What the Future Flight Challenge is, its aims, and how it is funded</li> <li>The three classes of air vehicles – <i>during this part, the images of the three classes are shown and described by the speaker while emphasising that these are not set in stone.</i></li> <li>Introduce the current state of play (i.e. current stage in development and what aspects are much more ‘long term’ and futures oriented); clarify that the focus of this dialogue is on <i>future use</i> rather than on <i>current use</i> – e.g. clarity on the size of these drones compared to those currently used personally/recreationally</li> <li>The eight example use cases, stressing that these are only hypothetical at this stage, they may not all be developed fully, are all up for discussion and can be tweaked, or new ideas added.</li> </ul>
19.30 - 19.45	<p><b>Q&amp;A session 1</b></p> <p><b>15 mins</b></p>	<p>Ipsos chair thanks the speaker for their presentation and asks participants to start posting questions in the chat. They explain that we might not get through all of them, but those that we don’t cover, we will try and get answers to in the first workshop.</p> <p><i>Pauses for 1-2 minutes to let some initial questions come in before continuing.</i></p> <p>Chair reads out questions and puts them to <b>Gary Cutts and Kerissa Khan</b></p> <p>Ipsos Chair thanks all of the participants for being so engaged and announces a 10 minute comfort break.</p>
19.45 - 19.50	<b>Comfort break (5 mins)</b>	

<p><b>19.50 - 20.00</b></p>	<p><b>How airspace works now</b></p> <p><b>10 mins</b></p>	<p><b>Presentation by Gary Cutts</b></p> <p>Ipsos Chair introduces speaker, and asks participants to think of questions as they listen that they would like to ask them in the Q&amp;A session after.</p> <p>Key points to cover:</p> <ul style="list-style-type: none"> <li>• The heights at which current air vehicles travel at, and future air vehicles could travel at, the current ways in which airspace is currently regulated – air traffic controllers for regional/international flights, transponders for other flights.(very briefly and only at introductory level) and safety regulations/standards etc (so basically what limits there are in term of who, what and how we can fly)Explain how future flight technologies might need new forms of airspace regulation (as not necessarily in traditional aviation domain etc)</li> <li>• Explaining how air vehicles might be operating Beyond Visual Line of Sight (and define what this means)</li> </ul>
<p><b>20.00- 20.15</b></p>	<p><b>Q&amp;A session 2</b></p> <p><b>15 mins</b></p>	<p>Ipsos chair thanks the speaker for their presentation and asks participants to start posting questions in the chat. They explain that we might not get through all of them, but those that we don't cover, we will try and get answers to in the first workshop.</p> <p><i>Pauses for 1-2 minutes to let some initial questions come in before continuing.</i></p> <p>Chair reads out questions and puts them to <b>Gary Cutts and Kerissa Khan</b></p>
<p><b>20.15 – 20.25</b></p>	<p><b>Current views on future flight technologies (Poll)</b></p> <p><b>10 mins</b></p>	<p><b>Ipsos Chair explains that participants are going to talk in lots more detail over the next two weeks, but before they do that we want to know what your 'gut reaction' is to what you've heard.</b></p> <ul style="list-style-type: none"> <li>• Ipsos Chair asks each of the questions below, then asks them to write <b>why</b> they thought that in the chat box.</li> </ul> <p>Q: To what extent do you support or oppose new air vehicles being used in the following situations?</p> <ul style="list-style-type: none"> <li>- Moving people from one part of a city to another</li> <li>- Moving goods to people's homes and workplaces</li> <li>- Moving people from one town to another town</li> <li>- Carrying out maintenance and inspection</li> <li>- Moving people from a rural area into an urban area</li> <li>- Supporting emergency services</li> </ul> <p>A: (for each of the above)</p> <ul style="list-style-type: none"> <li>- Strongly support</li> <li>- Tend to support</li> <li>- Neither support nor oppose</li> <li>- Tend to oppose</li> <li>- Strongly oppose</li> <li>- Don't know</li> </ul>

		<ul style="list-style-type: none"> <li>At the end of all of the questions (not before), the Chair reveals the results of the poll questions.</li> </ul>
20.25 - 20.30	<p><b>Next steps &amp; Thank and close</b></p> <p><b>5 mins</b></p>	<p><b>Remind of context:</b></p> <ul style="list-style-type: none"> <li>This is the first project of its kind, as there is very limited research into what the public think about the future of these technologies and because these technologies are very early in their development, so we're in a unique position to feed public views, hopes and concerns directly into the development of these technologies. That why all their views are of value and so important.</li> <li>This is what the participants will focus on over the next couple of weeks, and that they will also hear other perspectives from interviewees</li> </ul> <p>Ipsos Chair thanks everyone for joining and being so engaged throughout, reminds them of the dates for the next stage, and provides an email address for them to ask any other questions about the process.</p> <p><i>Leave email address on screen so participants can write it down/take a photo if they wish.</i></p>

Webinar slides



Welcome!

What is this about?

This is a public engagement project exploring your views about the future of flight technology, and how the UK's airspace may change in the future. We will be talking about the future of flight technology – some of these do not exist yet (and may not), such as flying taxis.

This is a real opportunity to hear what you, members of the public, feel is the right way for this technology to develop, if you think it should at all.



**Who is here?**

- You!** Over 70 people from across the UK
- Ipsos:** a research organisation specialising in understanding what people think
- The Future Flight team:** specialists from UKRI
- Sciencewise,** who support government and public bodies to run these sorts of engagement exercises

**What is the dialogue process?**

The flowchart shows the sequence of events: 'Webinar (all participants)' leads to 'Workshop 1 (Rural)', 'Workshop 1 (Towns)', and 'Workshop 1 (Urban)'. These three workshops then lead to 'Online Community (all participants)', which finally leads to 'Workshop 2: all participants'. A 'You are here' label points to the 'Webinar' box.

This webinar – housekeeping....

- A lot of information will be provided - always ask or note down any questions and ask for clarification when needed.
- What you say is confidential
- Put any questions in the chat box.
- Please don't multitask! You may miss important information
- We're online – distractions, cats, dogs, children welcome....
- If we lose connection to you at any point in the session Matt R will call you to see if we can help bring you back in again

You may want to write down Matt's contact just in case you need it later:  
 07494078984 [Matt.Reynolds@ipsos.com](mailto:Matt.Reynolds@ipsos.com)

We have shared materials with you by post. These may or may not have arrived yet, but please don't open them yet as that will spoil the surprise of the workshop!




### Before we get started.....

We want to see what your first impressions are before we present our information. So we are going to do a quick anonymous poll!

This is a test question so that we can check that the poll works. You should see the options pop up on your screen any moment.

**Q: Which is your favourite?**

- a) Cats
- b) Dogs
- c) Neither




### Before we get started.....

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**Before to day, how much, if anything, would you say you knew about drones?**

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- b) A fair amount
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- d) Heard of, but know nothing about them
- e) Never heard of them




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### Introduction to the Future Flight Challenge, air vehicles classes, and potential use cases

Presentation by Keriss a Khan  
Innovation lead for the Future Flight Challenge

**This presentation will talk about:**

- What the Future Flight Challenge is, its aims, and how it is funded
- Introduce to the types of air vehicles are in development and their possible uses
- Introduction to some of the ways in which these new aviation technologies could be used
- Ongoing social research and implications - why your thoughts and ideas are important



### What is the Future Flight Challenge?

- The Future Flight Challenge is a programme aiming to position the UK as a world-leader in the third aviation revolution.
- It aims to transform how we connect people, transport goods and deliver services in a sustainable way providing socio-economic benefits using new classes of air vehicles with novel technologies.
- It is a £300million programme, with funding from the industry and the government.



### What type of Future Flight technology are we discussing?


<b>Drones</b> Unstaffed, non-passenger carrying vehicles ranging in size from small to large	<b>Advanced air mobility</b> Electrical vertical take-off and landing vehicles that provide short journeys for up to 10 people	<b>Regional air mobility</b> 10+ person electric, hydrogen or hybrid aircraft providing short-medium range hops between fixed locations
<b>Delivery convenience</b> Unstaffed and delivery services are used, convenient and within reach for remote goods and services	<b>Reduced congestion</b> Efficient use of airspace networks reduces ground congestion elsewhere in urban areas	<b>Improved connectivity</b> Rural and traditionally disconnected regions have part of a highly developed transport system with viable connectivity
<b>Supporting services</b> Limited support from existing infrastructure and operations	<b>Increased consumer choice</b> Allowing consumers to choose between fast and environmental efficiency	<b>Seamless journeys</b> Existing transport is integrated as part of a seamless and low transport network including walking
<b>Increased acceptability</b> Drones operations are both safe and acceptable as part of existing life	<b>Reduced journey time</b> Potential journey times significantly reduced	<b>Journey convenience</b> Increased air connectivity can provide additional travel options and travel times
<b>Increased sustainability</b> Drones operations are both safe and acceptable as part of existing life	<b>Improved accessibility</b> Improved access to services and employment opportunities for those with reduced mobility	<b>Benefits to the UK economy</b> Potential £4.5 billion in GDP and 100,000 jobs supported by 2030



### How may these technologies be used?

These are just possible ways, nothing is certain at this stage!

<b>Rapid airport transfer</b> Passengers have access to on-demand air mobility to provide transit between their homes and nearby airports, between hub airports and local airports for onward transfer or between airports and high-volume cities and towns	<b>Emergency services support</b> Emergency services have a deployable drone operation to support rapid first response in a range of scenarios including road traffic accidents, search and rescue, fire response and situational awareness	<b>Intra-city journey</b> Passengers have access to autonomous Electric Vertical Take-Off and Landing (eVTOL) vehicles for mobility between urban locations as an additional mode of transport	<b>Maintenance and inspection</b> Rapidly deployed and high-endurance autonomous drones carry out maintenance and inspection operations of infrastructure in complex environments, reducing risk to personnel
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### How may these technologies be used?

These are just possible ways, nothing is certain at this stage!

<b>Inter-town transit</b> Access to convenient air travel for mobility between towns and cities. Passengers can access a scheduled electric- or hydrogen-powered aircraft on high-density routes. The air travel element connects seamlessly with other forms of transport to create a kerb-to-kerb mobility system that users can access with a single ticket.	<b>Rural/disconnected transit</b> Air taxis for transit between rural and traditionally disconnected areas on a scheduled/on-demand service as part of a highly-distributed aviation system.	<b>Drone delivery</b> Retail organisations provide on-demand last-mile delivery of cargo within each reach of consumers utilising a network of drones operating Beyond Visual Line of Sight.	<b>Cargo delivery</b> Cargo is transported as part of an operational service, across the UK between distribution centres by fleets of zero emission eVTOL aircraft and autonomous drones.
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### How may these technologies be used?

These are just possible ways, nothing is certain at this stage!

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### Ongoing social research and implications

Why your thoughts and ideas are important

- These different technologies don't exist in our skies yet, and we don't know how (or if) they will.
- What we hear from you during this research will feed directly into research and innovation ahead of development of new flight technologies.
- This is a real opportunity to hear what you, members of the public, feel is the right way for these technologies to develop, if you think they should at all.

### Q&A Session 1

Please post your questions in the chat!

### Comfort break!

Please be back by 7.50pm

### How airspace works now and the implications for future aviation .....

Presentation by Gary Cutts  
Future Flight Challenge Director

**This presentation will talk about:**

- How current airspace and flight is currently controlled and regulated
- The heights at which current air vehicles travel at, and future air vehicles could travel at
- Points to consider for future regulation and safety

### How current airspace and flight is currently controlled and regulated

- Civil Aviation Authority (CAA)
- Who and what can fly.....
- Controlled and Uncontrolled airspace
- Danger zones and restricted areas
- Safety and standards

### Current flight height restrictions

Plane.....  
Helicopter.....  
Hand glider.....  
Hot Air Balloon.....

### and Future Flight Heights...



### Points to consider

- New aviation technologies will be operating in lower airspace and within areas where aviation currently isn't operating (e.g. within cities or towns).
- This opens up a lot of questions about:
  - How we control that airspace ?
  - Who and what can fly in that airspace ?
  - Who and how we decides where new aviation technologies can land or fly
  - Safety and Standards
  - Operating beyond visual line of sight/Remotely Piloted Aircraft

### Q&A Session 2

Please post your questions in the chat!

### Current views poll

Now you have heard more, we want to get your 'gut reactions' with another poll.

**To what extent do you support or oppose new air vehicles being used in the following situations?**

**1. Moving people from one part of a city to another**

- a) Strongly support
- b) Tend to support
- c) Neither support nor oppose
- d) Tend to oppose
- e) Strongly oppose
- f) Don't know

### Current views poll

Now you have heard more, we want to get your 'gut reactions' with another poll.

**To what extent do you support or oppose new air vehicles being used in the following situations?**

**2. Moving goods to people's homes and workplaces**

- a) Strongly support
- b) Tend to support
- c) Neither support nor oppose
- d) Tend to oppose
- e) Strongly oppose
- f) Don't know

### Current views poll

Now you have heard more, we want to get your 'gut reactions' with another poll.

**To what extent do you support or oppose new air vehicles being used in the following situations?**

**3. Moving people from one town to another town**

- a) Strongly support
- b) Tend to support
- c) Neither support nor oppose
- d) Tend to oppose
- e) Strongly oppose
- f) Don't know

### Current views poll

Now you have heard more, we want to get your 'gut reactions' with another poll.

**To what extent do you support or oppose new air vehicles being used in the following situations?**

**4. Carrying out maintenance and inspection**

- a) Strongly support
- b) Tend to support
- c) Neither support nor oppose
- d) Tend to oppose
- e) Strongly oppose
- f) Don't know

### Current views poll

Now you have heard more, we want to get your 'gut reactions' with another poll.

**To what extent do you support or oppose new air vehicles being used in the following situations?**

**5. Moving people from a rural area into an urban area**

- a) Strongly support
- b) Tend to support
- c) Neither support nor oppose
- d) Tend to oppose
- e) Strongly oppose
- f) Don't know

### Current views poll

Now you have heard more, we want to get your 'gut reactions' with another poll.

**To what extent do you support or oppose new air vehicles being used in the following situations?**

**6. Supporting emergency services**

- a) Strongly support
- b) Tend to support
- c) Neither support nor oppose
- d) Tend to oppose
- e) Strongly oppose
- f) Don't know

## Thank you!

This is the end of the webinar.

### Next steps:

- You will receive materials in the post (if you haven't already). Please don't open them until the first workshop.
- Workshop 2 is next – You won't all have the same date, so please check if you are not sure!
- If you have any questions, please email [Edward.Camilleri@ipsos.com](mailto:Edward.Camilleri@ipsos.com)



## Poll results!

Remember, these are just 'gut reactions'.  
We will talk a lot about these topics over the next two weeks.



Depth Interview – Discussion guide

Timings	Questions
5 mins	<p><b><u>Introduction</u></b>  <i>INTERVIEWER TO INTRODUCE SELF, IPSOS AND UK RESEARCH AND INNOVATION [BELOW IS NOT TO BE READ OUT VERBATIM, BUT IN A PERSONABLE AND PROFESSIONAL WAY]</i></p> <p>KEY POINTS ON RESEARCH:</p> <ul style="list-style-type: none"> <li>• Ipsos, an independent research company, is running a series of workshops with people from across the country on behalf of UK Research and Innovation. These workshops will explore future flight technologies, which we’ll talk about later on.</li> <li>• UK Research and Innovation is funded by the government to invest in science and research. This research is being undertaken for UK Research and Innovation, and has not been commissioned by any government departments or agencies.</li> <li>• To help bring the public workshops to life, we want to bring in the voices of people who might be affected by these new technologies and that’s what we’ll talk about for the next hour.</li> <li>• Interviewer to explain why they have been selected to be interviewed and what particular perspective they hope will be surfaced [adjust for each interviewee]</li> <li>• CHECK THAT THEY RECEIVED INFORMATION SHEET.</li> <li>• As you will have read in your information sheet, we’d like to record our conversation today and use some clips for our workshop participants to listen to. We wouldn’t use anything you say that could identify who you are, where you live or work, or anything else sensitive. Can I check that is okay with you?</li> <li>• CHECK THAT THEY ARE HAPPY WITH OTHER CONSENT DETAILS IN INFORMATION SHEET.</li> </ul> <p><b>START RECORDING</b></p>
10 mins	<p><b><u>Lived experience and future outlook</u></b></p> <p>MODERATOR NOTE: NOTE DOWN ANSWERS TO THESE QUESTIONS IN ORDER TO REFER TO THEM LATER.</p> <p><b>To get started, can you tell me a bit about who are you, and where you live / work [choose most relevant]?</b>                  [ALLOW OPEN RESPONSE THEN MOVE ON]</p> <p><b>This particular study is about the future of flight, particularly the use of emerging technologies – this can be about the transportation of people but also about goods and services. What has been your experience of flight so far?</b></p> <ul style="list-style-type: none"> <li>- <b>How have you benefited from flight?</b></li> <li>- <b>What do you think the harms/challenges associated with flight are currently?</b></li> <li>- <b>What do you think the harms/challenges associated with other forms of transport of people, goods and services in the UK are currently?</b></li> </ul> <p><b>Imagine you could go forward in time by ten years. Thinking about the way things seem to be going, what do you think might change about flight, for better or worse (either of people or of goods and services?)</b></p> <p>-</p>

Timings	Questions
-15 mins	<p><b><u>Awareness and first impressions</u></b></p> <p>SHOW IMAGES OF THE THREE NEW CLASSES OF AIR VEHICLES WITHOUT ANY CAPTIONS.</p> <p><b>If you had to guess the name of these three new types of air vehicles, what would you call them? There are no right or wrong answers.</b></p> <ul style="list-style-type: none"> <li>• Why do you say that?</li> </ul> <p>REVEAL CAPTIONS.</p> <p><b>These are what these air vehicles are being called now, but this is not set in stone.</b></p> <p><b>So, <u>drones</u> are unmanned non-passenger carrying vehicles varying in size from small to large.</b></p> <ul style="list-style-type: none"> <li>• Have you ever personally seen a drone? <ul style="list-style-type: none"> <li>○ (IF YES) How did you feel when you saw one?</li> <li>○ (IF NO) How would you feel if you saw one out of your window?</li> </ul> </li> <li>• What kinds of uses have you heard of drones being used for? <ul style="list-style-type: none"> <li>○ (FOR EACH USE) How do you feel about them being used for this?</li> </ul> </li> </ul> <p>[IF NOT RAISED SPONTANEOUSLY, CLAIRFY THAT DRONES CAN BE MUCH LARGER AND HEAVIER THAN PERSONAL-USE DRONES, AND THAT THEY CAN BE USED FOR COMMERCIAL AND CIVIL USE]</p> <ul style="list-style-type: none"> <li>• What questions does the possibility of drones in the future raise for you?</li> </ul> <p><b>Next, <u>air taxis</u> (or ‘advanced air mobility’) are electrical vertical take-off vehicles (like a helicopter) that provide short journeys for up to 10 people.</b></p> <ul style="list-style-type: none"> <li>• Before today, how much, if anything, had you heard about flying taxis?</li> <li>• How would you feel if you saw one of these out of your window?</li> <li>• What questions does the possibility of air taxis raise for you?</li> </ul> <p><b>Finally, <u>air shuttles</u> (or ‘regional air mobility’) are electric, hydrogen or hybrid air vehicles which can hold over ten people and provide short to medium range hops between fixed locations. These need to use a runway like standard smaller planes in regional airports.</b></p> <ul style="list-style-type: none"> <li>• Before today, how much, if anything, had you heard about planes using new types of fuel?</li> <li>• How would you feel if you saw one of these in the sky?</li> <li>• What questions does about the possibility of air shuttles raise for you?</li> </ul>
15 mins	<p><b><u>Hopes and fears</u></b></p> <p>MODERATOR NOTE: NOTE DOWN ANSWERS TO THESE QUESTIONS IN ORDER TO REFER TO THEM LATER.</p> <p><b>Next, I want you to think and imagine about how these new types of air vehicle might affect your everyday life, where you live, how you work, and how you spend the rest of your time; as well as the potential impact on [insert issue – e.g. privacy, access, humanitarian conflict etc.]</b></p> <p><b>What are your hopes and fears about this in relation to your life/work?</b></p> <ul style="list-style-type: none"> <li>• (IF NEEDED) PROMPT USING ANSWERS FROM ABOVE:</li> </ul>

Timings	Questions
	<ul style="list-style-type: none"> <li>○ [Their personal 10-year predictions]</li> </ul> <p><b>Where do you think the balance lies – do the benefits outweigh the harms at present, or do the harms outweigh the benefits?</b></p> <p>[ALLOW OPEN RESPONSE, AND ONLY PROMPT USING THE BELOW IF NEEDED, OR IF INTERVIEWEE ONLY FOCUSES ON BENEFITS/HARMS]</p> <ul style="list-style-type: none"> <li>• (IF NEEDED) Some people have highlighted...[SEE LIST BELOW] as a potential benefit/harm. How do you think that might affect you personally? What about wider society?</li> <li>• Benefits:             <ul style="list-style-type: none"> <li>○ Affordability</li> <li>○ Convenience</li> <li>○ Connectivity</li> <li>○ Sustainability</li> <li>○ Speed</li> <li>○ Decarbonization</li> </ul> </li> <li>• Harms:             <ul style="list-style-type: none"> <li>○ Collisions, crashes or accidents</li> <li>○ Intrusion / reduced privacy / surveillance</li> <li>○ Job loss / displacement</li> <li>○ Personal safety</li> <li>○ Potential for criminal misuse</li> <li>○ Potential for commercial misuse</li> <li>○ Potential for state/government misuse</li> <li>○ Social inequality</li> </ul> </li> </ul>
10mins	<p><b><u>Conditions, governance and regulation</u></b></p> <p><b>Thank you for sharing your hopes, fears and reflections on these technologies. How do you think some of these future of flight technologies should be governed and overseen, to ensure that they work well?</b></p> <p>[ALLOW OPEN RESPONSE BEFORE MOVING TO HOPES/FEARS PROBES BELOW]</p> <p><b>One of your hopes was that [HOPE FROM ABOVE]. What would you like to see in place to make this future happen?</b></p> <p><b>One of your fears was that [FEAR FROM ABOVE]. What would you like to see in place to try and avoid that future from happening?</b></p> <ul style="list-style-type: none"> <li>• (PROMPTS FOR ABOVE, IF NEEDED, FOCUSING ON THOSE MOST RELEVANT TO INTERVIEWEE)             <ul style="list-style-type: none"> <li>○ Accessibility</li> <li>○ Regulation / frameworks / guidance</li> <li>○ Flight paths / segregated airspace</li> <li>○ Location of take-off and landing sites</li> <li>○ Flying height / altitude</li> <li>○ Governance of rules (local / national / international)</li> <li>○ Noise</li> <li>○ Pilot training / licensing</li> <li>○ Priority for certain uses / air vehicles</li> <li>○ Views / landscape / visual pollution / amenity</li> </ul> </li> </ul>

Timings	Questions
	<ul style="list-style-type: none"> <li>○ Wildlife</li> </ul>
5 minutes	<p><b><u>Interview close</u></b>  <b>Thank you for your time today, we've come to the end of my questions!</b></p> <p><b>Before we finish, I had one final thing to ask. If there was one thing that you would like the Future Flight Challenge Team to consider in the development of these technologies, what would it be?</b></p> <p>THANKS AND CLOSE</p>

### Workshop 1 – Discussion guide

N.B. For The Liminal Space's accompanying stimuli materials, please see <https://www.the-liminal-space.com/future-flight-workshop-toolkit>.

Time	Activity	Questions and materials
17.30 -17.50	<p><b>Set-up: Facilitators check-in</b></p> <p><b>25 mins</b></p>	<ul style="list-style-type: none"> <li>• Test link, mic and camera.</li> <li>• Test who has the host/co-host function and ensure it is allocated to the right team member(s) for recording breakout rooms. Make all moderators Co-hosts.</li> <li>• [Change screen name to NAME – Org – Chair/Moderator.</li> <li>• Check everyone is on the WhatsApp group for facilitation team to be able to ask questions, etc.]</li> <li>• Meanwhile tech support is assigning participants who are in the waiting room, notetakers, moderators, experts and observers to break-out rooms.</li> </ul>
17.50 -18.00	<p><b>Participant check-in</b></p> <p><b>5 mins</b></p>	<p><b>Participants log into the online session</b></p> <ul style="list-style-type: none"> <li>• Participants encouraged to join the zoom session early to check-in and check their video/mic.</li> <li>• Participants encouraged to get a pen and paper, and have their participant pack with them.</li> <li>• Register as people join and change screen names as necessary to first name and first initial of surname (i.e. John H).</li> </ul>
18.00 -18.10	<p><b>Introduction and scene setting</b></p> <p><b>Plenary 1</b></p> <p><b>10 mins</b></p>	<p><b>Ipsos Chair to give a warm welcome to the first of four online workshop (10 mins):</b></p> <ul style="list-style-type: none"> <li>• Chair to explain who is here: people from rural areas / towns / cities across the United Kingdom, Ipsos moderators, any observers.</li> <li>• Explain that this is event 1 of 2, give a reminder of date and time of the next workshop which will have all 72 participants, and explain that they'll receive an invite for the online community after this workshop.</li> <li>• Chair also to cover housekeeping`` <ul style="list-style-type: none"> <li>○ Please don't open the envelopes yet, we'll let you know when you can</li> <li>○ Don't zoom and multitask.</li> <li>○ Homes – don't worry if your family/ pet comes into view, we're all in the same boat</li> <li>○ Keep your video on unless your internet connection becomes unstable</li> </ul> </li> </ul>

Time	Activity	Questions and materials
		<ul style="list-style-type: none"> <li>○ We will be going into breakout rooms - we've set these up so you don't need to do anything – just let it happen</li> <li>○ If we lose connection to you at any point in the session [INSERT NAME] will call you to see if we can help bring you back in again</li> <li>○ We'll be recording for our own notes</li> <li>○ Confidentiality: we are interested in what you say, not who said what. Your comments will not be attributed back to you in our report. Refer to the printed materials</li> <li>○ We have shared materials with you, but please respect that these have been designed for the purpose of this exercise, and please don't post photos or content from these on social media or share otherwise</li> <li>○ Show ground rules and nod to a few: <ul style="list-style-type: none"> <li>▪ There are no silly questions/ comments. We're here to hear what you think</li> <li>▪ You may not all agree with what you are hearing but please do respect each other's views and experience</li> </ul> </li> <li>● Chair to remind participants why we are here – to find out what people across the UK think about new flight technologies and their potential role in the future (if any), how these might affect your day-to-day lives, what controls and safeguards you feel need to be in place, and what more dialogue and research needs to be done on this topic.</li> <li>● <b>Emphasise:</b> These different technologies don't exist in our skies yet, and we don't know how (or if!) they will. This is a real opportunity to hear what you, members of the public, feel is the right way for these technologies to develop, if you think they should at all.</li> </ul>
18.10 -18.30	<p><b>Participant introductions and 'back of an envelope'</b></p> <p><b>Break-out 1</b></p> <p><b>20 mins</b></p>	<p><b>Introductions</b></p> <ul style="list-style-type: none"> <li>● <i>Facilitator introduces themselves and the group's notetaker, and thanks everyone for joining this evening.</i></li> <li>● <i>Introductions – let's go round the zoom.</i></li> <li>● <i>Tell us something about yourself (where you live in the UK, what the weather is like where you are, and whether/what you can currently see out of your window – if one is nearby!)</i></li> <li>● <i>Facilitator to join in to demonstrate how to do this.</i></li> </ul> <p><b>'Back of an envelope'</b></p> <ul style="list-style-type: none"> <li>● <i>'In the webinar last week you heard lots about new flight technologies and how these might look out in the real world. Before we open up this envelope with the number one (facilitator holds up own copy of envelope to demonstrate) I want you to take five minutes to <b>draw your vision of future flight</b>. This is what you expect the future to look like with (or without) these new flight technologies. We're not going to mark you on how pretty it looks, so just draw the first things you think of! If you'd rather not draw just grab a piece of paper and jot down whatever comes to mind'</i></li> </ul> <p><i>Facilitator gives them five minutes, giving them a one minute warning four minutes in.</i></p>

Time	Activity	Questions and materials
		<ul style="list-style-type: none"> <li>Thanks everyone. Let's go around and hear what people have drawn. If you feel confident showing yours to the screen, please do, but otherwise you can just describe what you've scribbled down.</li> </ul> <p><i>Facilitator gives each participant a close-to-equal amount of time to talk through their drawing.</i></p>
18.30-19.00	<b>Household Materials</b>  <b>Break-out 2</b>  <b>30 mins</b>	<b>Opening the envelopes</b>  <b>Facilitator to clarify – Inside these envelopes are imaginary scenarios from the future. They are to help us imagine different versions of the future of flight technologies, and what impact they might have on our lives, if any, and any issues they might raise.</b> <ul style="list-style-type: none"> <li>Okay. Now it's time to open your envelopes! When you do, I want you to have a very quick read over the different items. In a couple of minutes, I'll count down from three and I want you to hold up the item that you want to talk about first.</li> </ul> <p><i>Facilitator lets participants open envelopes and look over items for two minutes.</i></p> <ul style="list-style-type: none"> <li>Three...two...one...hold up an item!</li> </ul> <p><i>Facilitator acknowledges the items people have held up. If one item was held up more than others, go to the relevant section below. Otherwise, choose one of the participants' choices at random. Try and cover 2-3 items in this first breakout, but avoid shutting down open/lively discussion just for the sake of covering more stimulus materials</i></p> <p><b>Vertiport Brochure &amp; Discount Card ('Make your day move with AirRide')</b></p> <p><i>Facilitator makes sure everyone has the correct material selected.</i></p> <ul style="list-style-type: none"> <li>Before we talk about this together, have a read over everything and try to imagine how you may feel about this service if it were in place today. Feel free to note down any thoughts as you go if that's helpful for you.</li> </ul> <p><i>Facilitator gives participants a couple of minutes to read over. Remind them this is fictional. Participants give a thumbs up to the camera when they are done.</i></p> <ul style="list-style-type: none"> <li>What did this flyer make you think?</li> <li>What were you excited/concerned about?</li> </ul> <p><i>Facilitator – get every participant's spontaneous answers before prompting on any details below. You do not need to use ALL/ANY of these prompts – <b>prioritise spontaneous discussion.</b></i></p>



Time	Activity	Questions and materials
		<ul style="list-style-type: none"> <li>• How do you feel about the discount for people near one of their Sky Ranks?</li> <li>• How do you feel about this being run by ‘Transport for UK’? <i>(if needed, facilitator to clarify that this is a government/taxpayer-funded organisation)</i></li> <li>• Which existing vertiports sound useful or not useful to you personally?             <ul style="list-style-type: none"> <li>○ School Street                 <ul style="list-style-type: none"> <li>▪ How would you feel about children and young people using this service?</li> </ul> </li> <li>○ Alto’s Supermarket Car park <i>(if needed, facilitator to clarify that this is an affordable supermarket)</i> <ul style="list-style-type: none"> <li>▪ How useful do you think this service would be? For who?</li> </ul> </li> <li>○ St Carter’s Train Station                 <ul style="list-style-type: none"> <li>▪ How would you feel about people switching between this service and a National Rail service?</li> </ul> </li> </ul> </li> <li>• How would you feel if there was a Vertiport near where you live or work?             <ul style="list-style-type: none"> <li>○ What would the benefits be?</li> <li>○ What would the disadvantages/disbenefits be?</li> </ul> </li> <li>• What do you think about the distance you can travel?             <ul style="list-style-type: none"> <li>○ Would 1 mile be the right minimum distance? Why/why not?</li> <li>○ Would 20 miles be far enough for the journeys you’d need to take? Why/why not?</li> </ul> </li> <li>• How would you feel about the autonomous AirRides that are ‘coming soon’?             <ul style="list-style-type: none"> <li>○ What would be the benefits of this over manned air vehicles?</li> <li>○ What would be the disadvantages/disbenefits of this compared to manned air vehicles?</li> </ul> </li> </ul> <p><i>Before moving on to the next item:</i></p> <ul style="list-style-type: none"> <li>• After everything we’ve discussed, how do you feel now about this service? The same? Differently? Why?</li> <li>• What else/other issues does this bring to mind?</li> <li>• What do you think might be the benefits or disadvantages of a service like this?</li> </ul> <p><b>Council Letter (‘Castlebury Council...Dear Resident...’)</b></p> <p><i>Facilitator makes sure everyone has the correct material selected.</i></p> <ul style="list-style-type: none"> <li>• Before we talk about this together, take a minute to have a read over the letter.</li> </ul> <p><i>Facilitator reads the letter out, give participants a moment to consider it. Remind them this is fictional. Participants give a thumbs up to the camera when they are done.</i></p>

Time	Activity	Questions and materials
		<ul style="list-style-type: none"> <li>• What did this letter make you think?</li> <li>• How would you feel if you got this through your post box?</li> <li>• What were you excited / concerned about?</li> </ul> <p><i>Facilitator – get every participant’s spontaneous answers before prompting on any details below. You do not need to use ALL/ANY of these prompts – <b>prioritise spontaneous discussion</b></i></p> <ul style="list-style-type: none"> <li>• What do you think about where sky routes may go? Who would it avoid and who would it fly over?</li> <li>• What considerations do you think there should be about using routes for waste collection and schools?</li> <li>• What stands out to you from this letter?                             <ul style="list-style-type: none"> <li>○ How do you feel about Castlebury Council meeting their net zero carbon targets?</li> <li>○ What do you think it would be like to work as one of those thirty pilots?</li> <li>○ How do you think it would affect traffic on the roads?</li> </ul> </li> <li>• What else would you expect to know about a service like this?</li> </ul> <p><i>Before moving on to the next item:</i></p> <ul style="list-style-type: none"> <li>• After everything we’ve discussed, how do you feel now about this service? The same? Differently? Why?</li> <li>• What else/other issues does this bring to mind?</li> <li>• What do you think might be the benefits or disadvantages of a service like this?</li> </ul> <p><b>Transit Ticket (‘CloudLine Connect’)</b></p> <p><i>Facilitator makes sure everyone has the correct material selected.</i></p> <ul style="list-style-type: none"> <li>• Before we talk about this together, take a minute to have a read over the item. If it wasn’t already clear, this is a screenshot from an app on a mobile phone.</li> </ul> <p><i>Facilitator gives participants a minute to read over. Remind them this is fictional. Participants give a thumbs up to the camera when they are done.</i></p> <ul style="list-style-type: none"> <li>• What did this app make you think?</li> <li>• How would you feel if you saw or heard that this app was available in your area?</li> <li>• What were you excited / concerned about?</li> </ul> <p><i>Facilitator – get every participant’s spontaneous answers before prompting on any details below. You do not need to use ALL/ANY of these prompts – <b>prioritise spontaneous discussion</b></i></p> <ul style="list-style-type: none"> <li>• What stands out to you from the App?</li> <li>• IF NOT MENTIONED SPONTANEOUSLY:                             <ul style="list-style-type: none"> <li>○ What do you think about the price?</li> </ul> </li> </ul>

Time	Activity	Questions and materials
		<ul style="list-style-type: none"> <li>○ How would you feel about using flying taxi to access an ancient monument?</li> <li>○ What do you think about the travel time?</li> </ul> <ul style="list-style-type: none"> <li>● Is there any other information you'd want to know before using this service?</li> </ul> <p><i>Before moving on to the next item:</i></p> <ul style="list-style-type: none"> <li>● After everything we've discussed, how do you feel now about this service? The same? Differently? Why?</li> <li>● What else/other issues does this bring to mind?</li> <li>● What do you think might be the benefits or disadvantages of a service like this?</li> </ul> <p><b>No Fly Zone Protest Badge ('Keep our skies clear!')</b></p> <p><i>Facilitator makes sure everyone has the correct material selected.</i></p> <ul style="list-style-type: none"> <li>● Before we talk about this together, take a minute to have a read over the badge.</li> </ul> <p><i>Facilitator gives participants a minute to read over. Remind them this is fictional. Participants give a thumbs up to the camera when they are done.</i></p> <ul style="list-style-type: none"> <li>● What does this badge make you think about?</li> <li>● What would you think if you heard about this campaign taking place in your area?</li> <li>● What were you excited / concerned about?</li> </ul> <p><i>Facilitator – get every participant's spontaneous answers before prompting on any details below. You do not need to use ALL/ANY of these prompts – <b>prioritise spontaneous discussion</b></i></p> <ul style="list-style-type: none"> <li>● Why do you think over 250,000 people would campaign to keep the skies clear?</li> <li>● What does the idea of no fly zones raise for you?</li> <li>● Where do you think the four 'no fly zones' might be?</li> <li>● What else would you want to know about the 'no fly zones'?</li> </ul> <p><i>Before moving on to the next item:</i></p> <ul style="list-style-type: none"> <li>● After everything we've discussed, how do you feel now about this campaign, and the idea of 'no fly zones'? The same? Differently? Why?</li> <li>● What else/other issues does this bring to mind?</li> <li>● What do you think might be the benefits or disadvantages of 'no fly zones' might be?</li> </ul> <p><b>Drone Drop Service Form ('Direct Drone Drop, A premium drone delivery service...')</b></p>

Time	Activity	Questions and materials
		<ul style="list-style-type: none"> <li>• Before we talk about this together, have a read over the card and think about which options, if any, you would be interested in. Circle the ones you would choose, and draw crosses over the ones you would not be interested in.</li> </ul> <p><i>Facilitator gives participants a couple of minutes to read over and consider the option. Remind them this is fictional. Participants give a thumbs up to the camera when they are done.</i></p> <ul style="list-style-type: none"> <li>• What did this card make you think?</li> <li>• How would you feel if you saw or heard that this service was available in your area?</li> <li>• What were you excited / concerned about?</li> <li>• Which option(s) would you be likely to use (if any)? Why?</li> <li>• Would you avoid any of these options? Why?</li> </ul> <p><i>Facilitator – get every participant’s spontaneous answers before prompting on any details below. You do not need to use ALL/ANY of these prompts – <b>prioritise spontaneous discussion</b></i></p> <ul style="list-style-type: none"> <li>• How close or far from your home would you want a drone to drop off a delivery? Why?             <ul style="list-style-type: none"> <li>○ What would the benefits be having a drone drop near your home?</li> <li>○ What would the disadvantages/disbenefits be having a drone drop near your home?</li> </ul> </li> <li>• What else stands out to you from the card?             <ul style="list-style-type: none"> <li>○ How do you feel about biometric data authentication? <i>(if needed, clarify that this could mean fingerprints or retina scans)</i></li> <li>○ What do you think about the time the delivery would take?</li> <li>○ How do you feel about the delivery being live video recorded?</li> <li>○ Would you expect the whole journey, or just the drop-off to be recorded?</li> <li>○ What do you think about this company donating free deliveries to local ‘families in need’? Why do you think this donation may be needed? Is this the right solution to issues of access/inequality?</li> <li>○ What do you think of when you read that the service is part of the ‘delivery carbon scheme’?</li> </ul> </li> <li>• Is there anything missing from this card? What?</li> </ul> <p><i>Before moving on to the next item:</i></p> <ul style="list-style-type: none"> <li>• After everything we’ve discussed, how do you feel now about this service? The same? Differently? Why?</li> <li>• What else/other issues does this bring to mind?</li> <li>• What do you think might be the benefits or disadvantages of a service like this?</li> </ul>

Time	Activity	Questions and materials
		<p><b>Supermarket Promotional Magnet ('My green supermarket is flying high...Using Sky Haul')</b></p> <p><i>Facilitator makes sure everyone has the correct material selected.</i></p> <ul style="list-style-type: none"> <li>• Before we talk about this together, take a minute to have a read over the magnet and card.</li> </ul> <p><i>Facilitator gives participants a minute to read over. Remind that it is fictional. Participants give a thumbs up to the camera when they are done.</i></p> <ul style="list-style-type: none"> <li>• What would you think if your local supermarket handed you one of these?</li> <li>• What did this card/magnet make you think?</li> <li>• What were you excited / concerned about?</li> </ul> <p><i>Facilitator – get every participant's spontaneous answers before prompting on any details below. You do not need to use ALL/ANY of these prompts – <b>prioritise spontaneous discussion</b></i></p> <ul style="list-style-type: none"> <li>• What stands out to you from the card? <ul style="list-style-type: none"> <li>○ What do you think about the amount of HGV journeys being taken off the road?</li> <li>○ How important would your supermarket's energy efficiency be to you?</li> <li>○ How do you feel about the reduction in animal road deaths?</li> </ul> </li> <li>• Is there anything missing from this card? What?</li> </ul> <p><i>Before moving on to the next item:</i></p> <ul style="list-style-type: none"> <li>• After everything we've discussed, how do you feel now about this service? The same? Differently? Why?</li> <li>• What else/other issues does this bring to mind?</li> <li>• What do you think might be the benefits or disadvantages of a service like this?</li> </ul> <p><i>Facilitator announces break and asks them to be back by 19.10. Tells them to stay in the breakout but that they can turn their camera and audio off.</i></p>
19.00-19.10	<b>Comfort break (10 mins)</b>	
19.10-19.40	<b>Household Materials (continued)</b>  <b>Break-out 3</b>  <b>30 mins</b>	<p><i>Cover as many of the remaining items not yet discussed as you can, <b>prioritising spontaneous discussion</b>, using the prompts if necessary, and avoiding shutting down open/lively discussion just for the sake of covering more stimulus materials</i></p>

Time	Activity	Questions and materials
19.40-19.50	<p><b>Presentation of audio-visual stimuli</b></p> <p><b>Plenary 2</b></p> <p><b>10 mins</b></p>	<p><b>Chair welcomes everyone back to plenary and introduces the three audio-visual materials, and asks participants to jot down their initial thoughts on each one to share with their breakout groups</b></p> <p><i>Tech support to check that everyone can see and hear the materials.</i></p> <ul style="list-style-type: none"> <li>• News bulletin about major flooding</li> <li>• <i>Pause to allow participants time to make notes</i></li> <li>• ‘The House that Drones Built’ TV documentary advert</li> <li>• <i>Pause to allow participants time to make notes</i></li> <li>• ‘AA’ vehicle recovery service radio broadcast</li> <li>• <i>Pause to allow participants time to make notes</i></li> </ul> <p><b>[N.B. See scripts for these videos below]</b></p>
19.50-20.10	<p><b>Discussion of audio-visual stimuli</b></p> <p><b>Break-out 4</b></p> <p><b>20 mins</b></p>	<ul style="list-style-type: none"> <li>• What stood out to you from what you’ve just seen and heard? Why?</li> </ul> <p><i>Facilitator to focus on the audio-visual material that participants mention first (from below), before focusing on <b>one other example</b> as per the circulation guide sent to you by the chair which outlines.</i></p> <p><b>News bulletin about major flooding</b></p> <p><i>Show slide with screenshots from the news bulletin. Refer to script in moderator pack if needed.</i></p> <ul style="list-style-type: none"> <li>• How did you feel when you heard about the response to Storm Charlotte?</li> </ul> <p><b><i>Wait for spontaneous responses and only prompt with the below if needed.</i></b></p> <ul style="list-style-type: none"> <li>• Would you feel more reassured or more concerned about the way the emergency services responded? Why?</li> <li>• What might the benefits or disadvantages of this be?</li> <li>• How do you think this compares with how we deal with floods right now...? <ul style="list-style-type: none"> <li>○ ...how about drones surveying damage?</li> <li>○ ...how about drones for transporting supplies</li> <li>○ ...how about air taxis for moving emergency services and personnel ?</li> <li>○ ...how about air-shuttles replacing obstructed road transport?</li> </ul> </li> <li>• How much would you trust these services to help you in a crisis like this?</li> <li>• How do you think the benefits/disadvantages weigh up for using new air vehicles in emergency situations? Is it worth it? Why/why not?</li> </ul>

Time	Activity	Questions and materials
		<p><b>‘The House that Drones Built’ TV documentary advert</b></p> <p><i>Show slide with screenshots from the TV documentary advert. Refer to script in moderator pack if needed.</i></p> <ul style="list-style-type: none"> <li>• What came to mind when you saw this TV advert?</li> </ul> <p><b><i>Wait for spontaneous responses and only prompt with the below if needed.</i></b></p> <ul style="list-style-type: none"> <li>• How would you feel about a house being built in this way?</li> <li>• What might the benefits or disadvantages/disbenefits of this be?</li> <li>• What do you think this sort of automation would mean for the construction industry? <ul style="list-style-type: none"> <li>○ PROBE IF NOT MENTIONED SPONTANEOUSLY : What might the impact be on construction jobs?</li> </ul> </li> <li>• What might be the benefits or disadvantages of this? <ul style="list-style-type: none"> <li>○ Who do you think this kind of service would benefit/disadvantage?</li> <li>○ Should remote areas have housing like this? Why/why not?</li> <li>○ How do you feel about the reduced number of staff on site?</li> <li>○ What do you think about the carbon efficiency of this type of construction?</li> <li>○ Is there any key information missing from this news bulletin?</li> </ul> </li> <li>• Is there any key information missing from this TV advert?</li> <li>• What do you think is the balance here between the benefits and disadvantages of new air vehicles working to transport materials to remote locations?</li> </ul> <p><b>‘AA’ vehicle recovery service radio broadcast</b></p> <p><i>Show slide with a photo of a Satnav. Refer to script in moderator pack if needed.</i></p> <ul style="list-style-type: none"> <li>• What came to mind when you heard this radio broadcast?</li> </ul> <p><b><i>Wait for spontaneous responses and only prompt with the below if needed.</i></b></p> <ul style="list-style-type: none"> <li>• How would you feel if you heard about an air vehicle collision on a journey you take regularly?</li> <li>• How do you think this compares with transport accidents that happen now...? <ul style="list-style-type: none"> <li>○ ...how do you think this collision might have happened?</li> <li>○ ...how do you feel about drones surveying damage?</li> <li>○ ...how do you feel about drones monitoring traffic?</li> </ul> </li> <li>• Is there any key information missing from this radio broadcast?</li> </ul>

Time	Activity	Questions and materials
		<ul style="list-style-type: none"> <li>How does this radio broadcast leave you feeling about the balance between the benefits and harms of new air vehicles?</li> </ul> <p><i>Facilitator announces break and asks them to be back by 20.20. Tells them to stay in the breakout but that they can turn their camera and audio off.</i></p>
20.10 – 20.20	<b>Comfort break</b>  <b>10 mins</b>	
20.20-20.55	<b>'Out of the Window' and Final Reflections</b>  <b>Break-out 5</b>  <b>35 mins</b>	<ul style="list-style-type: none"> <li>In your pack you should find three views out of a window. Once you find these, I want you to choose the view that you think best fits where you live.</li> </ul> <p><i>Give participants a minute to find these in the pack, choose their view, and hold this up to the camera.</i></p> <ul style="list-style-type: none"> <li>If you look on the bottom-left of the window you can see a 'key' that lists some different types of air vehicles. Does anyone have any questions about these?</li> </ul> <p><i>Clarify that 'delivery' and 'large cargo' are drones of different sizes (not carrying people) with vertical take-off, 'Air Taxi' and 'Emergency' would carry up to around 10 people short journeys with vertical take-off, 'Air Shuttle' would carry more than 10 people, making regional trips within the UK using a short runway for take-off.</i></p> <ul style="list-style-type: none"> <li>You should also be able to see some stickers in your pack which match the key we've just looked at. You've got different sizes of the same stickers too. These aren't different-sized air vehicles, but the same air vehicles closer and further away from your window.</li> </ul> <p><i>Check that everyone has found their stickers.</i></p> <ul style="list-style-type: none"> <li>Finally, you should also have some coloured pencils.</li> </ul> <p><i>Check that everyone has them too.</i></p> <ul style="list-style-type: none"> <li>Now that we've got everything we need, we're about to get a bit creative. I want you all to imagine what the view out of your window might look like with or without these new air vehicles. This view out of the window could be what you hope for, or what you fear.</li> <li>You can use these stickers to show how far or close they might fly to where you live, and you can use any pencils or pens of your own to show the directions their flight paths might take. It could be full of these new air vehicles, or with none of them at all. The most important thing that we will discuss after is <b>why</b> you feel this way. Any questions before you start?</li> </ul> <p><i>Check that they are clear on the exercise, and clarify that we are not asking them to predict the most likely future but illustrate what</i></p>



Time	Activity	Questions and materials
		<p><i>they hope for or fear based on what they have heard and discussed so far.</i></p> <ul style="list-style-type: none"> <li>• Okay, I'm going to give you ten minutes. You can work away silently on your windows during that time, but if you do have any technical questions don't hesitate to ask.</li> </ul> <p><i>Time 10 minutes. 5 minutes in let them know that they are halfway through, and give them a 1 minute warning before the end.</i></p> <ul style="list-style-type: none"> <li>• Let's see what everyone's done! If you can, hold your window up the camera and talk us through your picture and the issues that you were considering in doing so. E.g. why did you choose those stickers and the flight paths? What issues did you consider when you were doing this activity?</li> </ul> <p><i>Circle through every participant, using the prompts below IF NECESSARY. Aim for 2-3 mins per participant, to keep time for group discussion afterwards.</i></p> <ul style="list-style-type: none"> <li>• How did you choose which air vehicles to include or not include?</li> <li>• How did you choose which air vehicles would be close, and which would be far away?</li> <li>• I notice you have quite a few [air vehicle] out your window, why is that?</li> <li>• I notice that there aren't any [air vehicles] visible from your window, why is that?</li> <li>• [Air vehicle] and [air vehicle] look like they'd fly quite close to each other, how do you think that might work?</li> <li>• How would your view vary if you lived somewhere more urban/rural?</li> </ul> <p><i>Once you have let everyone present:</i></p> <ul style="list-style-type: none"> <li>• Now that we've see everyone's views out of the window, does anyone have any new thoughts or ideas?</li> </ul> <p><i>Allow for any new general reflections before moving on.</i></p> <ul style="list-style-type: none"> <li>• Keep your window views out, but please try and also find the envelope drawing you did earlier.</li> </ul> <p><i>Give participants a minute to find this until they give a thumb's up on the screen.</i></p> <ul style="list-style-type: none"> <li>• Have a look at your envelope drawing and your view out of the window side by side. What's similar? What's different?</li> </ul> <p><i>Prompts below IF NECESSARY:</i></p> <ul style="list-style-type: none"> <li>• What hopes and fears have stood firm for you throughout today?</li> <li>• Have any new hopes and fears come to your mind today?</li> </ul>

Time	Activity	Questions and materials
		<ul style="list-style-type: none"> <li>• Have any of the materials we looked at today made you think about things differently?</li> <li>• Is there anything that other participants have said that you hadn't thought of before?</li> </ul> <p><i>Before closing the final breakout, thank all participants for their engaged participation and say that it was lovely to meet them all.</i></p>
20.55-21.00	<p><b>Thank and close</b></p> <p><b>Plenary 3</b></p> <p>5 mins</p>	<p>Chair thanks participants for taking part and being so engaged.</p> <p>Chair tells them that they'll get their first payment sent over in a few working days, before reminding them about the next steps. They will be sent logins for the online community will be sent by email, and chair encourages them to engage with the materials and listen to other people's perspectives, interviews we've done with people who may be affected by new technologies and the 70+ participants from all three workshops across the UK. Also remind participants the date and time for the second workshop.</p>

## Workshop 1 – Scripts from audio-visual stimuli

### News bulletin about major flooding

And now, an update from the floods in the northern region after Storm Charlotte.

Drones surveying the area have been monitoring the electricity pylons that are out of action, and are searching flooded woodland for farm animals in distress.

A pop-up vertiport is arriving on site as we speak, allowing emergency services and volunteers to fly in and maxi-cargo drones to deliver sandbags, flood barriers, and temporary accommodation in anticipation of further heavy rainfall overnight and tomorrow.

A temporary eco-plane air shuttle service has been established to keep commuters travelling from Hullerpool to Manchdon and Glasblin, after the motorway and rail services have been disrupted. This service is likely to be operating until the end of the week.

And one woman, who was cut off in her car for 48 hours, had insulin delivered by drone drop, saving her life ahead of the emergency services arriving.

More on this as it comes in, back to you in the studio.

### 'The House that Drones Built' TV documentary advert

What does building a cutting edge house in one of the most remote parts of the UK involve?

Go inside to find out how drones, e-cargo and the latest innovation in flight supported the design and delivery of the most ambitious build in the UK for the last decade.

“Using this technology, we can now build homes more cheaply and more carbon efficiently for families across the UK, without having to take over large sites. Drones can help us reach even the most remote and wild places where there are no roads”

“We delivered materials and builders between the site’s pop-up vertiport and our depot on the same day. This is revolutionary”

“As an architect, I’ve never been able to see buildings come to life in this way before – the surveillance across the site is the most detailed I’ve seen, meaning this is one of the safest ways I’ve worked”

“These are jobs that didn't exist seven years ago - they have crafted these houses through air technology, and as a result we haven’t needed lorries, on the ground surveyors or the same number of builders on site as before”

Could this state of the art housing complex built by drones be a blueprint for the house of your future?

[Graphic says Thursday at 9pm]

### ‘AA’ vehicle recovery service radio broadcast

\*Jingle comes in\*

Coming in with reports of a drone/e-flight collision with a railway bridge [alexa voice as if it’s tailored to you says: Five Miles ahead of you] heading north on the motorway.

We understand that situational awareness aircraft are already on scene and relaying to the emergency services. Survey drones are checking the structure of the bridge for damage, so we will be able to confirm when it will reopen, shortly.

Highways drone services are monitoring and regulating southbound traffic.

They have also identified your alternative route suggestion is to [alexa voice: take next exit and follow the A road 3 miles east, and take the ring road to follow the dual carriage way north]

\*Jingle comes in\*

### Workshop 2 – Discussion guide

Time	Activity	Questions and materials
9.30 -9.50	<p><b>Set-up: Facilitators check-in</b></p> <p><b>25 mins</b></p>	<ul style="list-style-type: none"> <li>• Test link, mic and camera.</li> <li>• Test who has the host/co-host function and ensure it is allocated to the right team member(s) for recording breakout rooms. Make all moderators Co-hosts.</li> <li>• Change screen name to NAME – Org – Chair/Moderator.</li> <li>• Check everyone is on the WhatsApp group for facilitation team to be able to ask questions, etc.</li> <li>• Meanwhile tech support is assigning participants who are in the waiting room, notetakers, moderators, experts and observers to break-out rooms.</li> </ul>

Time	Activity	Questions and materials
9.50 -10.00	<b>Participant check-in</b>  <b>5 mins</b>	<b>Participants log into the online session</b> <ul style="list-style-type: none"> <li>• Participants encouraged to join the zoom session early to check-in and check their video/mic.</li> <li>• Participants encouraged to get a pen and paper, and have their participant pack with them.</li> <li>• Register as people join and change screen names as necessary to first name and first initial of surname (i.e. John H).</li> </ul>
10.00 - 10.10	<b>Recap of workshop 1 and online community</b>  <b>Plenary 1</b>  <b>(10 min)</b>	<b>Ipsos Chair to welcome everybody back, and give a summary of what was discussed during the first workshop and the online community (5 mins):</b> <ul style="list-style-type: none"> <li>• <i>[specific notes to be added when these details are known, this will bring attention to convergences and differences across different groups in terms of their views on the technologies]</i></li> <li>• Clarify who is in attendance, including that all participants are here <i>[show map of UK with locations participants have been drawn from]</i></li> </ul> <b>Chair to remind of ground rules (5 mins):</b> <ul style="list-style-type: none"> <li>○ Don't zoom and multitask.</li> <li>○ Homes – don't worry if your family/ pet comes into view, we're all in the same boat</li> <li>○ Keep your video on unless your internet connection becomes unstable</li> <li>○ We will be going into breakout rooms - we've set these up so you don't need to do anything – just let it happen</li> <li>○ If we lose connection to you at any point in the session [INSERT NAME] will call you to see if we can help bring you back in again</li> <li>○ We'll be recording for our own notes</li> <li>○ Confidentiality: we are interested in what you say, not who said what. Your comments will not be attributed back to you in our report. Refer to the printed materials</li> <li>○ We have shared materials with you, but please respect that these have been designed for the purpose of this exercise, and please don't post photos or content from these on social media or share otherwise</li> <li>○ Show ground rules and nod to a few: <ul style="list-style-type: none"> <li>▪ There are no silly questions/ comments. We're here to hear what you think</li> <li>▪ You may not all agree with what you are hearing but please do respect each other's views and experience</li> </ul> </li> </ul> <p><b>Chair to remind participants why we are here – to find out what people across the UK think about new flight technologies, how these might affect your day-to-day lives, what controls and safeguards need to be in place, and what more dialogue and research needs to be done on this topic.</b></p> <ul style="list-style-type: none"> <li>• <b>Emphasise:</b> These different technologies don't exist in our skies yet, and we don't know how (or if!) they will. This is a real opportunity to hear what you, members of the public, feel is the right way for these technologies to develop, if you think they should at all.</li> </ul> <p><b>We will go into breakout rooms now, where you will do activities in groups of around 6.</b></p>

Time	Activity	Questions and materials
10.10-10.45	<p><b>Skyways game: Part 1</b></p> <p><b>Breakout 1</b></p> <p><b>(35 mins)</b></p>	<p><b>Introductions (5 mins)</b></p> <ul style="list-style-type: none"> <li>• Facilitator introduces themselves and the groups notetaker, and thanks everyone for joining this evening.</li> <li>• Introductions – let's go round the zoom.</li> <li>• Tell us something about yourself (where you live in the UK, what can you usually hear out the window where you live?)</li> <li>• Facilitator to join in to demonstrate how to do this.</li> </ul> <p><b>Choosing 'Player Cards' (5 mins)</b></p> <ul style="list-style-type: none"> <li>• Over the first workshop and the online community, you have all thought about the future of flight from your own perspectives, and in your own areas. Now we are going to spend some time considering the key topics from other perspectives.</li> <li>• [show Player cards on screen] You should all have these player cards in your packs, but I'll read through them quickly now. Have a think about how important you think each of these characters' views might be to the topic.</li> <li>• Each of you are going to represent one of these characters, so I'm going to ask you all in a random order who you would like to be.</li> </ul> <p><i>Facilitator quickly reads through each character. Then asks participants in a random order who they will be and why e.g. they identify with them, they think their perspective is important/relevant]</i></p> <ul style="list-style-type: none"> <li>• So the characters we are not using are [POINT OUT THE UNCHOSEN PLAYER CARDS].</li> <li>• <b>Do you feel any of these are really important/does anyone want to swap?</b></li> </ul> <p><b>Introduce the map (5 mins)</b></p> <ul style="list-style-type: none"> <li>• Point out the different areas (Cities, towns, rural, mountains, warehouses, port, Isle)</li> <li>• If you would like a zoomed in view of City B, or Town A, you can see them on the back of the board.</li> <li>• Explain the key, and direct participants to find the matching stickers in their pack.</li> </ul> <p><b>Individual mapping activity (10 mins)</b></p> <ul style="list-style-type: none"> <li>• Now, looking at your 'Player Card', have a think about where your character may prefer the No Fly Zone(s), and Landing Zones, or where they may be completely against them. It's also fine if you think your character may be completely against any of these changes!</li> <li>• Think about how the character may (or may not) want to use services provided by future flight technologies, and whether they will be able to use or access these services. With that in mind, you can place down yellow stickers to create routes between the different places on the map.</li> <li>• Feel free to write down any big concerns/priorities you think your character might have if they can't be expressed with stickers!</li> <li>• <b>Now have a go on your own. We have about 7 minutes, and I'll give you a warning when you have a couple of minutes left.</b></li> </ul> <p><b>Group discussion on maps (10 mins)</b></p>

Time	Activity	Questions and materials
		<ul style="list-style-type: none"> <li>Go around group and ask them to hold their map up and <u>briefly</u> explain the most important decision they made and what issues came to mind as you were thinking about how it might impact on the lives of their character/player card (average 2-3 mins per participant)</li> </ul> <p><i>Facilitator comments on any similar decisions or conflicts between characters' priorities.</i></p> <p><i>Go to break.</i></p>
10.45-10.55	<b>Comfort break (10 mins)</b>	
10.55-11.25	<b>Skyways game: Part 2</b>  <b>Breakout 2</b>  <b>(30 mins)</b>	<b>Wildcards (10 mins per Wildcard, <u>30 mins total</u>)</b> <ul style="list-style-type: none"> <li>Now we have three wildcards in our packs, can anybody pick a colour to start with – Red, Blue or Green?</li> <li><i>Facilitator reads out chosen Wildcard, probes the following:</i> <ul style="list-style-type: none"> <li>What issues does this raise for you about the use of future flight technologies?</li> <li>Does it raise for you additional opportunities/ concerns of future flight services? Which areas on the map might be most affected</li> <li>Who may be most affected? (Can be 'Player Card' characters or other groups)</li> </ul> </li> <li>Facilitator asks the key question on the wildcard, aim to hear from all participants.</li> </ul> <p><i>Repeat for remaining two Wildcards</i></p>
11.25-11.40	<b>Summarising maps</b>  <b>Breakout 2 cont.</b>  <b>(15 mins)</b>	<b>Summarising maps (15 mins)</b>  <i>Facilitator opens the digital version of the map and recaps the discussion so far, checking that participants agree with the summary of the group discussion:</i> <ul style="list-style-type: none"> <li>Use phrasing such as: ... "What I heard was that there was some agreement that..." "There were some real questions about ..."</li> <li>Probe if needed: <ul style="list-style-type: none"> <li>Have I missed any important points?</li> <li>Have you had any new thoughts listening to this recap?</li> <li>Anything to add about concerns/hopes?</li> </ul> </li> </ul> <p><i>Go to break</i></p>
11.40 – 11.50	<b>Comfort break</b>  <b>10 mins</b>	
11.50-12.15	<b>Skyway code</b>  <b>Break out 3</b>  <b>(25 mins)</b>	<b>Welcome back and introduce session (5 mins)</b> <i>Facilitator shows 'Skyways Code' sheet on screen</i> <ul style="list-style-type: none"> <li>We have now looked at how different groups may view decisions about routes and zones.</li> </ul>

Time	Activity	Questions and materials
		<ul style="list-style-type: none"> <li>• With this in mind, as well as how these decisions may affect you , your friends and family or society more broadly, we are going to look at drawing up an imaginary ‘Skyway Code’</li> <li>• The Skyway Code will be a set of rules that we think future flight technology should have to abide by, and how decisions about routes and locations should be made. Think about what controls and safeguards need to be in place.</li> </ul> <p><b>Skyway Code group discussion (20 mins):</b></p> <p><i>Throughout the following probes, the facilitator should type new rules agreed by participants onto the Skyway Code slide as you go. Reassure participants that they do not have to agree on everything. Where there is contention about any of the rules, just note this in brackets next to the rule so that all views are reflected.</i></p> <ul style="list-style-type: none"> <li>• One of the things some of you felt was important was [INSERT A SHARED PRINCIPLE MENTIONED IN EARLIER DISCUSSIONS]. We could start by adding a rule about this to the code?</li> </ul> <p><i>Show slide [tbc] showing delivery drones, air taxi, emergency, air shuttle, large cargo vehicles.</i></p> <ul style="list-style-type: none"> <li>• Do you think there should be different rules for these different types of services? Why?</li> <li>• What should these be? <ul style="list-style-type: none"> <li>○ Probe e.g.: routes, heights, time of day, noise levels, cost, public/private ownership, accessibility, standards, regulatory bodies/enforcement, safety, access to/funding and maintenance of infrastructure</li> </ul> </li> </ul> <p><i>Show digital map (if helpful)</i></p> <ul style="list-style-type: none"> <li>• Do you think there should be different rules for different areas? E.g., rural, urban, town?</li> <li>• What should these be? <ul style="list-style-type: none"> <li>○ Probe e.g.: routes, heights, time of day, noise levels, cost, public/private ownership, accessibility, standards, regulatory bodies/enforcement, safety, access to/funding and maintenance of infrastructure</li> <li>○ Probe on the area they live in, if not already mentioned – remind them of the windows activity</li> </ul> </li> </ul> <p><i>Show ‘Player Cards’</i></p> <ul style="list-style-type: none"> <li>• Are there any rules that you think your character would add, that you agree is important?</li> </ul> <p><i>Show ‘Wild Cards’</i></p> <ul style="list-style-type: none"> <li>• Thinking back to the wildcards, are there any other rules we should add?</li> <li>• If helpful – remind them of the key point they made during the wildcard activity</li> </ul>
12.15-12.40	Reflections on the way forward	<p><b>Reflections sheet individual activity (10 mins)</b></p> <p><i>Facilitator show the reflections sheet on screen and populate on screen</i></p>

Time	Activity	Questions and materials
	<p><b>Breakout 3 cont.</b></p> <p><b>(25 mins)</b></p>	<ul style="list-style-type: none"> <li>• You should all have a copy of this in your pack. Before we discuss this as a group, I'll ask you to have a think about this and note any thoughts down on your own for a few minutes.</li> <li>• Before we do this, I'll quickly run through what we are looking for in each of these boxes:</li> <li>• <u>'We need more info on...':</u> <ul style="list-style-type: none"> <li>○ <i>What further research should be done to inform decision making about new flight tech?</i></li> </ul> </li> <li>• <u>'We need to resolve...'</u> <ul style="list-style-type: none"> <li>○ <i>What conflicts and trade-offs need to be resolved?</i></li> <li>○ <i>E.g., conflicts between different priorities and needs? Facilitators refer back to the 'Player Cards' or any contentious Skyway codes if helpful</i></li> </ul> </li> <li>• <u>'We need to hear from...'</u> <ul style="list-style-type: none"> <li>○ <i>Whose voices need to be heard to make sure their priorities are considered?</i></li> <li>○ <i>Refer to the player cards and any topics of concern</i></li> </ul> </li> <li>• <u>'We need to involve...'</u> <ul style="list-style-type: none"> <li>○ <i>Who should be a part of decision making, design, and setting rules?</i></li> <li>○ <i>Probe: individuals, organisations, special interest groups, experts, the public</i></li> </ul> </li> </ul> <p><i>Facilitator gives participants 5 mins to write down ideas on their own.</i></p> <p><b>Reflections group discussions (15 mins)</b></p> <ul style="list-style-type: none"> <li>• Go round the group one box at a time to hear participant thoughts</li> <li>• Ask other participants to discuss each other's suggestions</li> </ul>
<p><b>12.40 - 12.55</b></p>	<p><b>Feedback from breakouts</b></p> <p><b>Plenary</b></p> <p><b>(15 mins)</b></p>	<p><b>Lead facilitator welcomes everyone back (5 mins)</b></p> <ul style="list-style-type: none"> <li>• Reassure we will be ending on time, thank for hard work in breakout groups</li> <li>• Time to listen back now, so please do stay on mute.</li> <li>• If you had extra thoughts to add to the reflections sheet, please feel free to note them down and send a picture of it to [email/number TBC].</li> </ul> <p><b>Breakout room feedback (10 mins)</b></p> <ul style="list-style-type: none"> <li>• Each breakout room lead shares ONE Skyway Code rule their group came up with (one that hasn't already been shared by another group), and the general appetite/level of acceptability for this technology in the group.</li> <li>• <u>Keep very brief to ensure all groups are heard from.</u> Reassure that rules that haven't been read out have still been captured and will form the findings of this research.</li> </ul>
<p><b>12.55- 13.00</b></p>	<p><b>Thank and close</b></p> <p><b>Plenary</b></p> <p><b>5 mins</b></p>	<p><b>Lead facilitator thanks participants and shares next steps for the research.</b></p> <p>Chair thanks participants for taking part and being so engaged. The notes from all of your discussions will be thoroughly analysed and underpin our report about the priorities, concerns and hopes that the public have about future flying technology. This is likely to be published in July and we will send a copy of this to you by email.</p>



Time	Activity	Questions and materials
		Chair tells them that they'll get their final payment sent over in a few working days.

### Online Community – Questions and guide

Post 1	Welcome blog
Purpose	Welcome participants to the online community, remind them why they are there, and let them know what to expect.
Format and settings	<ul style="list-style-type: none"> <li>A short summary blog post that stays at the top of the homepage.</li> </ul>
Copy	<p><b>Welcome to the Future of the Skies online community!</b> Thank you for all of your contributions at the first workshop. Over the next week, we have a few short tasks for you to do on here. For some of these tasks you need some bits and pieces from the pack we sent you, but for others everything you need is on here. You can space out these tasks over the week, or do them all at once – whatever best suits you schedule!</p> <p>For some of these tasks you can see what other people have said, and it would be great if you can reply to them so you get to know each other better. Other tasks are private, and we've made it clear which is which.</p>

Post 2	Audio Interviews (20 mins)
Purpose	Participants hear a range of perspectives from the lived experience interviews.
Description.	Edited audio with cover image, presents quotes from the 12 interviews to demonstrate a range of perspectives.
Format and settings	<ul style="list-style-type: none"> <li>Participants play audio clip then answer open text questions about them</li> <li>All participants can see each other's answers and like/comment on them</li> </ul>
Copy	<p><b>Task 1 - Word on the street</b></p> <p>Alongside the workshops, we've also been talking to people whose lives might be affected by new flight technologies, from freight drivers to wildlife crime detectives.</p> <p>Have a listen to some clips from the interviews we've done.</p> <ul style="list-style-type: none"> <li>When you hear about these people's views, what sorts of issues come to mind about how future flight technologies might affect them (positively or negatively)?</li> <li>How do these clips confirm or challenge what you thought before?</li> </ul> <p>Post you answers in the box below, have a look at what other people have said, and reply to them if you like.</p> <p>[OPEN TEXT BOX]</p>

Post 3	Guess the height (10 mins)
Purpose	Setting the context and reminding participants about workshop 1 learnings about airspace
Description.	Using the Liminal Space height scale, participants will be asked to guess how high several different types of vehicles/wildlife fly, and then think about at which height they think new air vehicles should fly.
Format and settings	<ul style="list-style-type: none"> <li>An image of the height scale will display throughout</li> <li>Single select questions will ask them to guess the height bracket at which different vehicles / animals tend to fly at</li> <li>This is followed by an open text question asking them to think about the height at which new air vehicles should fly at (if at all).</li> </ul>

	<ul style="list-style-type: none"> <li>Participants can only see their own response– this is so that participants can make their own guesses without influencing others.</li> </ul>
Copy	<p><b>Task 2 – Higher or lower?</b></p> <p>It's time for a quick quiz! (this task is private, so you <b>can't</b> see what other people have said) How high do the following fly?</p> <p>[SINGLE RESPONSE QUESTIONS]</p> <ul style="list-style-type: none"> <li>How high does a commercial plane fly (not including take-off or landing)? <ul style="list-style-type: none"> <li>25,000-46,000 feet / 7,600-14,000 metres</li> <li>13,000-24,999 feet / 3,960-7,600 metres</li> <li>5,000-12,999 feet / 1,500-3,900 metres</li> </ul> </li> <li>How high does a helicopter fly? <ul style="list-style-type: none"> <li>13,000-17,000 feet / 3,960-5,180 metres</li> <li>8,000-12,999 feet / 2,430-3,960 metres</li> <li>3,000-7,999 feet / 920-2,430 metres</li> </ul> </li> <li>How high on average does a buzzard (bird of prey) fly? <ul style="list-style-type: none"> <li>1,300-2,000 feet / 400-600 metres</li> <li>1,000-1,299 feet / 300-400 metres</li> <li>500-999 feet / 150-300 metres</li> </ul> </li> <li>How tall is an electricity pylon? <ul style="list-style-type: none"> <li>200-300 feet / 60-90 metres</li> <li>100-199 feet / 30-60 metres</li> <li>50-99 feet / 15-30 metres</li> </ul> </li> <li>How tall is the Shard in London? <ul style="list-style-type: none"> <li>1000-1500 feet / 300-450 metres</li> <li>850-999 feet / 260-300 metres</li> <li>800-849 feet / 240-260 metres</li> </ul> </li> </ul> <p>And how high or low do you think drones, flying taxis and ecoplanes should fly (if at all)?</p> <p>[OPEN TEXT BOX]</p>

<b>Post 4</b>	<b>Out of Other People's Windows (15 mins)</b>
Purpose	Imagining the impact of FF tech for other people/locations.
Description.	Replicating the out of the window activity, with the two other locations that are not their own - inspired by what they have heard on the audio.
Format and settings	<ul style="list-style-type: none"> <li>Participants follow the prompts on screen, while using the physical materials from their pack to place stickers on the other two windows.</li> <li>They take a picture of their windows and upload them (for those unable to do so they can just describe what they did).</li> <li>They then answer a couple of open text questions</li> <li>All participants can see each other's answers</li> </ul>
Copy	<p><b>Task 3 – A change of scenery</b></p> <p>Remember filling out a view from your window in the first workshop? Now it's time to have a go at the other two windows in your pack, which show places that look more urban or rural than where you live or work.</p> <p>Using your leftover stickers, and any pencils/pens of your own, we want you to imagine what the view out of these windows might look like with or without these new air vehicles.</p>

This could be what you hope, or what you fear. Once you're done, take a picture with your webcam or phone and upload the photo below.

Tell us in a couple of sentences why the views out of the windows look the way they do. Does it look different from the window you did in the workshop? If so, why? How do you think residents in this environment might feel about this view? How would you feel if you lived there?

Have a look at what other people's views look like too!

If you have any technical issues uploading your photos, please get in touch with [Ipsos colleague's contact details redacted]

[OPEN TEXT BOX WITH IMAGE ATTACHMENTS ENABLED]

<b>Post 5</b>	<b>Photo prompts (15 mins)</b>
Purpose	Imagining their immediate area, in the context of FF implications and opportunities.
Description.	Participants are invited to take pictures from their daily environment (at home, on journeys, at work etc) that reflect their response to this future world.
Format and settings	<ul style="list-style-type: none"> <li>• Participants are shown a series of prompts and asked to take pictures of their area/space, for instance, the road outside, a balcony if they have one, a garden if they have one, a car park if they have one, to upload as a response, alongside a couple of sentences explaining their reasons.</li> <li>• Participants will have the option to only answer with words to ensure accessibility for those who can't or would rather not use photos.</li> <li>• Participants then response to some prompt questions with open text responses</li> <li>• Participants can only see their own response – this is so that participants do not feel nervous about sharing picture of their home/life</li> </ul>
Copy	<p><b>Task 4 – Photos from the future</b></p> <p>In your pack, you should be able to find three cardboard tokens with the following written on them:</p> <ul style="list-style-type: none"> <li>• Show a place that represents a journey that you think could change with new types of air travel, or that shows how you feel about future air travel.</li> <li>• Show a location in your life that you think a vertiport could be, or that shows how you feel about them (remember these could be for different services, including flying taxis, emergency services and delivery drones).</li> <li>• Show an object, routine or service in your life that you think could change with future flight, or that shows how you feel about use of new types of air vehicles to complete tasks across the UK.</li> </ul> <p>Follow the instructions on these tokens, and upload your response below. This task is private, so you <b>can't</b> see what other people have said.</p>

# Appendix D - Acknowledgments and attributions

## Ipsos project team

- Reema Patel – Project Director
- Michelle Mackie – Deputy Project Director
- Matt Reynolds – Co Project Manager
- Jennifer Gisborne – Co Project Manager
- Edward Camilleri – Project Executive

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## UKRI

- Professor Fern Elsdon-Baker, Future Flight Challenge Social Science Research Director, (University of Birmingham)
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## Sciencewise

- Suzannah Lansdell, Dialogue and Engagement Specialist
- Diane Beddoes, Senior Dialogue and Engagement Specialist, Lead Evaluator
- Philippa Lang, Public Engagement Programme Manager

In addition the Challenge Board for the dialogue critically reviewed and provided light touch input to the design and development of the dialogue activities and stimulus materials:

- Professor Lucy Budd, De Montfort University
- Dr Melissa Mendez, Cardiff University
- Professor Jack Stilgoe, UCL

# Our standards and accreditations

Ipsos' standards and accreditations provide our clients with the peace of mind that they can always depend on us to deliver reliable, sustainable findings. Our focus on quality and continuous improvement means we have embedded a "right first time" approach throughout our organisation.



## ISO 20252

This is the international market research specific standard that supersedes BS 7911/MRQSA and incorporates IQCS (Interviewer Quality Control Scheme). It covers the five stages of a Market Research project. Ipsos was the first company in the world to gain this accreditation.



## Market Research Society (MRS) Company Partnership

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## ISO 9001

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