About Us

Innovate UK KTN exists to connect innovators with new partners and new opportunities beyond their existing thinking – accelerating ambitious ideas into real-world solutions.

UKRI Innovate UK KTN

Net Zero Places Aim:

To help make Net Zero in the UK a reality, by working with local/regional authorities and agencies to connect, collaborate, inform, share experiences and lessons learned, adopt innovation and to level up across the UK.

For more information visit:

ktn-uk.org/programme/net-zero-places/

UKRI Innovate UK KTN

The Future Flight Challenge

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Future Flight for Local Authorities
21 June 2022

Future Flight is a £300m programme assuring the UK's position in the 3rd revolution of aviation…

UK Research and Innovation

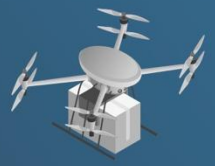
Getting us airborne…

Getting us long haul…

Flexing how we fly…

Consumer Vision 2030

How the future aviation environment will benefit consumers in 2030



Drones

Unpiloted, non passenger carrying vehicles varying in size from small to large

Delivery Convenience
Distribution and delivery services are rapid, convenient and within each reach for everyday goods and services

Supporting Services
Drones support emergency services and perform complex inspections / operations

Increased Acceptability
Drone operations are quiet, safe and acceptable as part of day-to-day life

Advanced Air Mobility

Electric vertical take off and landing vehicles that provide short journeys for up to 10 people

Regional Air Mobility

10+ person electric, hydrogen or hybrid aircraft providing short-medium range hops between fixed locations

Reduced Congestion
Efficient use of airspace resources reduces ground congestion (especially in urban areas)

Improved Connectivity
Rural and traditionally disconnected regions form part of a highly distributed transport system within close proximity

Increased Consumer Choice
Allowing consumers to choose between cost and environmental efficiency

Seamless Journeys
Existing transport is integrate as part of a seamless end-to-end transport network including ticketing

Reduced Journey Time
Average journey times significantly reduced

Journey Convenience
Services are available on demand, reducing impact of travel and travel times

Improved Affordability
Operations are affordable and widely available for the general public

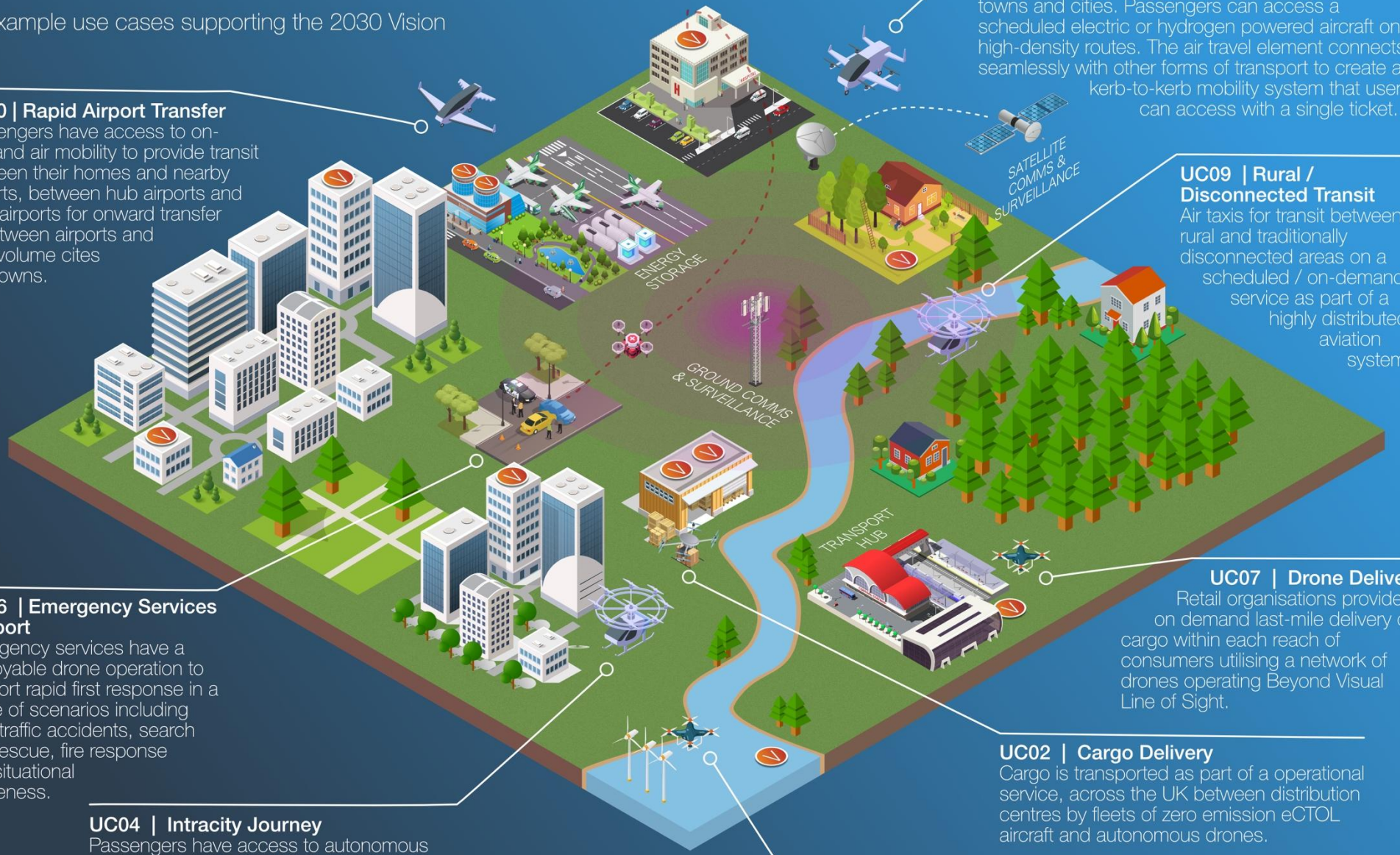
Increased Sustainability
Operations are electric or hydrogen based, minimising the environmental impact

Improved Accessibility
Improved access to services and employment opportunities for those with reduced mobility

Benefits to the UK Economy
Predicted 1.8% increase in GDP and 628,000 jobs supported by 2030

2030 Use Cases

Example use cases supporting the 2030 Vision



UC01 | Inter-town Transit
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.

UC09 | Rural / Disconnected Transit
Air taxis for transit between rural and traditionally disconnected areas on a scheduled / on-demand service as part of a highly distributed aviation system.

UC10 | Rapid Airport Transfer
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 cites and towns.

UC07 | Drone Delivery
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.

UC06 | Emergency Services Support
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.

UC02 | Cargo Delivery
Cargo is transported as part of a operational service, across the UK between distribution centres by fleets of zero emission eCTOL aircraft and autonomous drones.

UC04 | Intracity Journey
Passengers have access to autonomous Electric Vertical Take-off and Landing (eVTOL) vehicles for mobility between urban locations as an additional mode of transport.

UC08 | Maintenance and Inspection
Rapidly deployed and high endurance autonomous drones carry out maintenance and inspection operations of infrastructure in complex environments, reducing risk to personnel

THANK YOU

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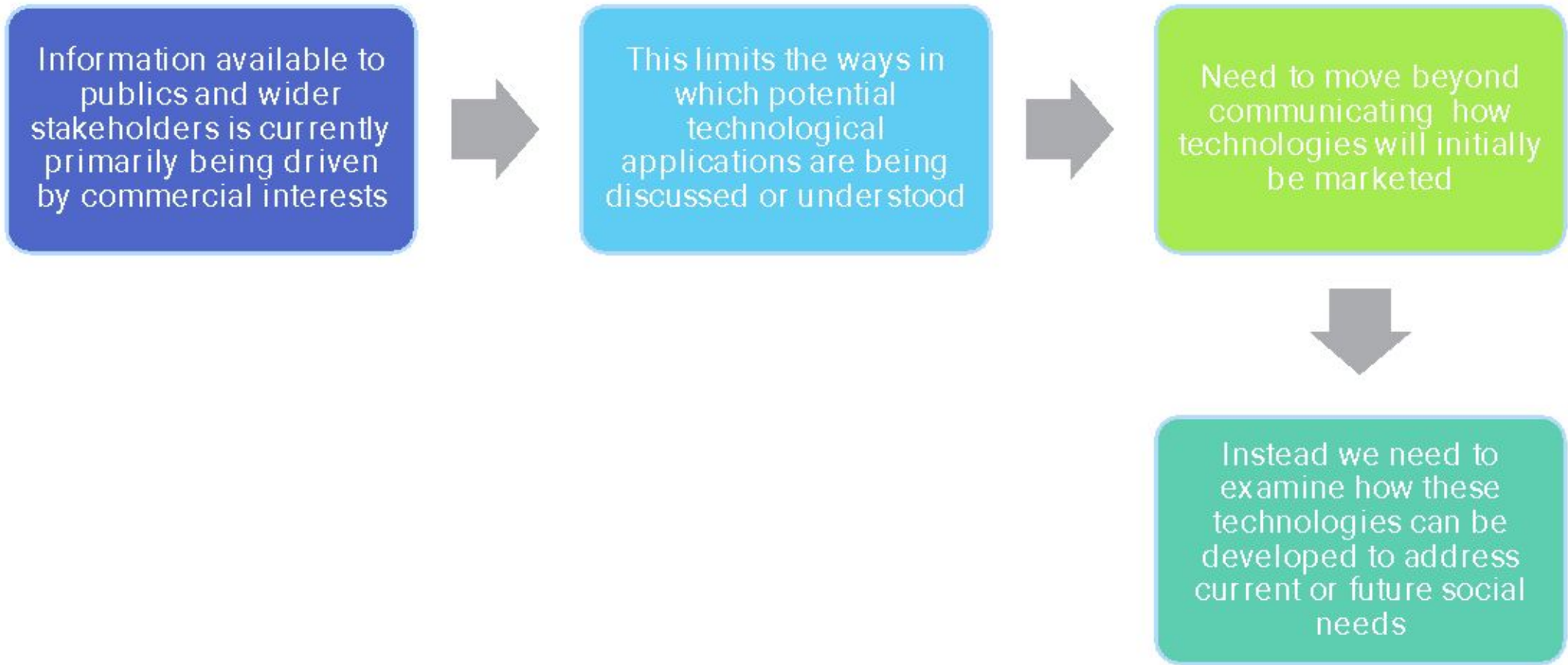
FUTURE FLIGHT CHALLENGE – SOCIAL SCIENCE RESEARCH

JUNE 2022

Key issues to address:

- Future Flight Challenge has the potential to be socially, economically and environmentally transformative in ways that transcend traditional aviation studies… .
- Emerging field of social study – the data we have about publics perceptions is limited and primarily survey based
- Areas covered by the Future Flight Challenge are segmented on the technological side… .as well as on the social sciences side
- Limited awareness of the technological capabilities and timelines for scale up
- Urgent need to engage across industry, policy, regulatory, public sector and academic research communities

Understanding public or social desirability:



Public Dialogue

Run in partnership with Sciencewise and delivered by Ipsos and The Liminal Space

To engage the public and special interest groups through interviews, a webinar, 2 workshops and an online community on future flight technologies

Dialogue involved of conversation about acceptability, local and national regulation and prioritisation for future flight technologies

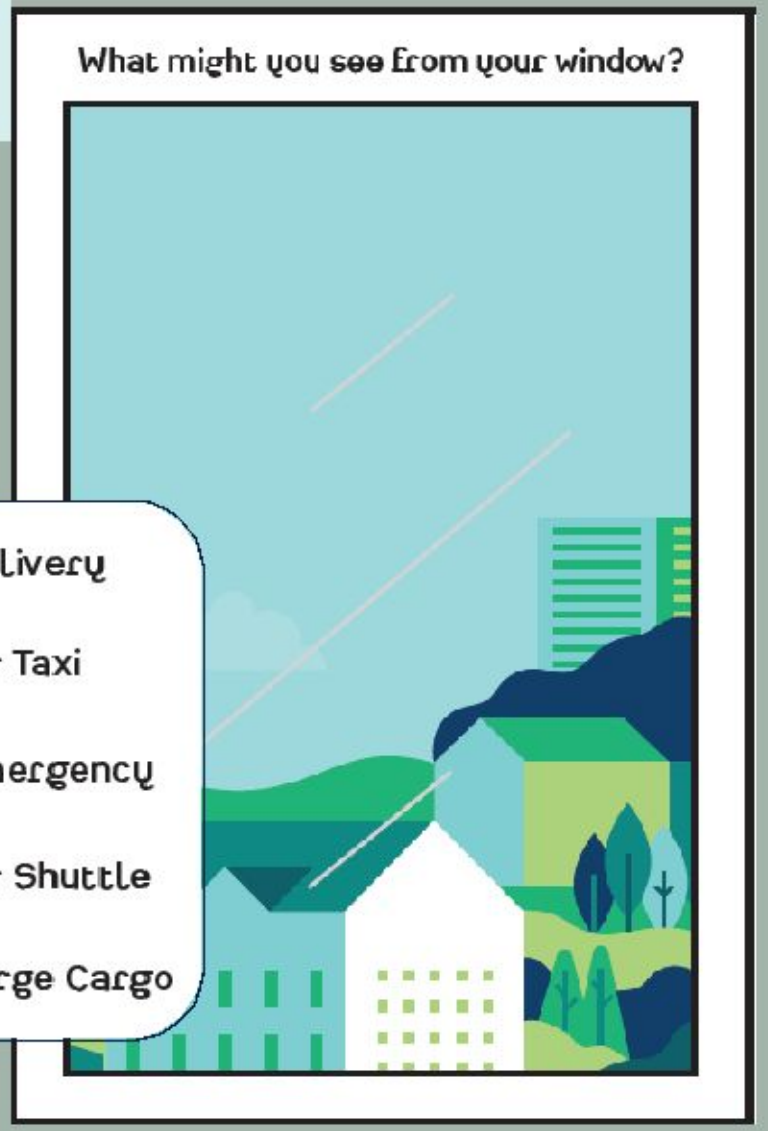
72 Participants from across UK from rural, sub-urban and urban communities

The full report is due in July and will be published and shared

Future thinking stimulus materials

Introduced hypothetical use cases. Began exploration of how participants feel individually (and as a group) about future of flight technologies.

(Developed by The Liminal Space and Ipsos)



Skyways code game

Considered the use of airspace and infrastructure across rural, town and city contexts, using a fictional region in the UK. Developed principles and ‘red lines’ in the form of a ‘Skyway Code’.

(Developed by The Liminal Space and Ipsos)

Next steps...

- Public Dialogue report to be released in July
- Delivering further social science research, consultation and public dialogue activity
- Providing support and resources to enable local level community engagement

Register for the Future Flight Landscape map

Join and connect with the Future Flight community of 240+ organisations and 27 universities, spanning 41 areas of expertise and 300+ capabilities.

Register now by using the QR code or by following this link.

Innovate UK KTN

Get in touch

If you have any questions or want to learn more please get in touch via

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