

SKYWAY

PROJECT SKYWAY - S.E.P.T PRESENTATION

20TH NOVEMBER 2024



SKYWAY



PROJECT OVERVIEW

WHO ARE WE – THE SKYWAY COLLABORATION



ANGOKA



SKYFARER



SKYWAY

PROJECT VISION

To enable drones to safely share the skies with all other aviation, even when out of sight of the pilot, unlocking their societal and commercial benefits.



UK'S FIRST DRONE SUPERHIGHWAY

What is Skyway?

- Skyway is an innovative project designed to expand what drones can do, particularly by allowing them to fly long distances without the pilot maintaining visual line of sight.
- The project is supported by **UKRI Innovate UK's** Future Flight Challenge Programme.
- Skyway's "drone superhighway" uses special masts on the ground equipped with sensors to monitor the airspace, allowing drones to fly safely alongside other air traffic.
- These masts are placed along the route to track drones and other airspace users, preventing collisions and keeping the skies safe for all users.

Why Skyway?

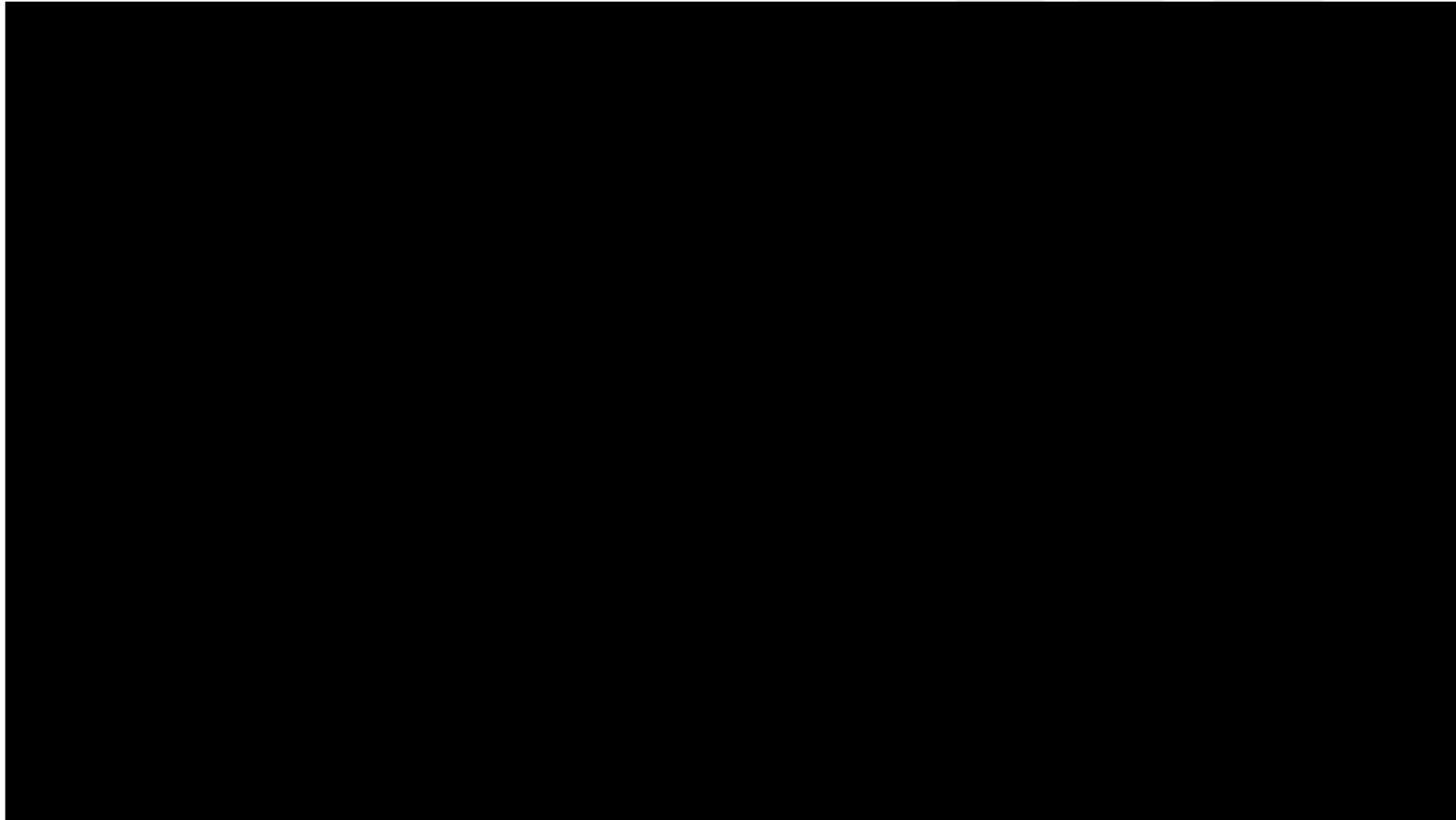
- Right now, drones can typically only fly a limited distance from the person controlling them (within Visual Line of Sight).
- This limits how much drones can do and isn't practical for larger operations. To fully unlock their potential, drones need to fly **beyond** the operator's sight (BVLOS).
- To truly adopt drone operations, drones must safely integrate with existing airspace users without segregating airspace. Segregation takes time and only works as a short-term solution.

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TECHNOLOGY

SKYWAY TECHNOLOGY ANIMATION



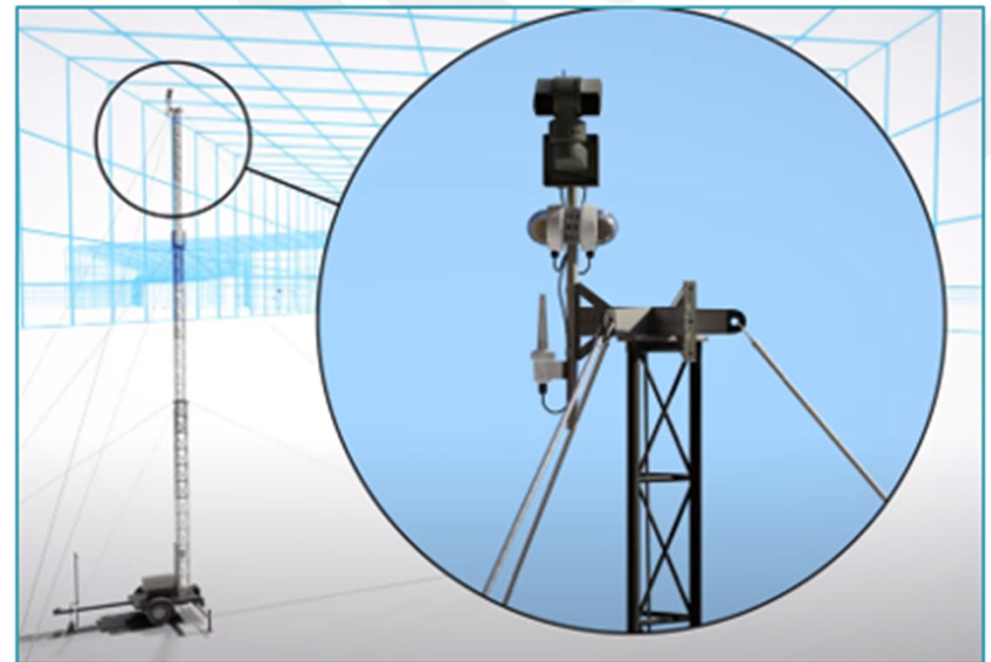
THE TECHNOLOGY BEHIND SKYWAY

We call it ARROW®

Various Sensors fitted to mast infrastructure along the route to provide oversight of the skies:

- Crewed Electronically Conspicuous (EC) Aviation Sensors
 - ADS-B, FLARM, Mode-S, Remote ID
- Uncrewed (Drones) Aviation Sensors
 - Drone RF detection and operator tracking
- Crewed Non-EC Aviation Sensors
 - Optical pan tilt and zoom (PTZ) cameras with AI integration
- Commercially available feeds

ARROW®'s fusion engine combines multiple sensors and displays the surveillance feed to drone operators via Altitude Angel's GuardianUTM platform.



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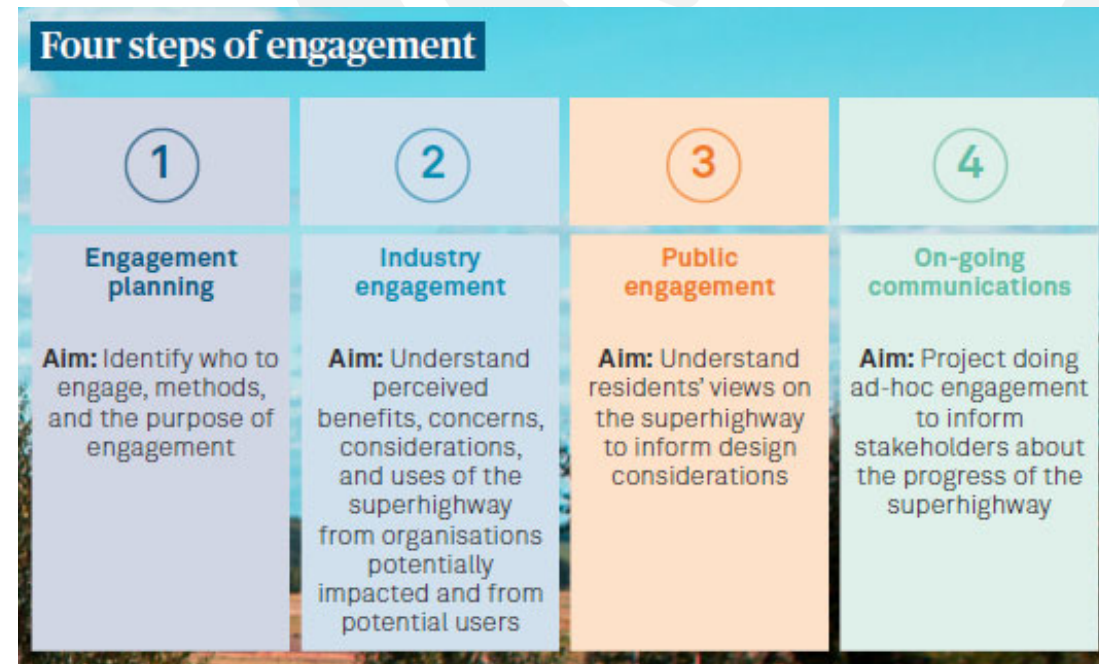
PUBLIC ENGAGEMENT

PUBLIC ENGAGEMENT

Objectives:

- Engage with a broad range of stakeholders
- Identify potential users and their requirements
- Assess public perspective

“Ultimately, the project team’s overarching objective is to use the insights gained through engagement to influence the design and implementation of the superhighway and other BVLOS systems.”



Source: Project Skyway Stakeholder Engagement Report, Connected Places Catapult, June 2024

PUBLIC FOCUS GROUPS

20 industry engagement participants

2 Airspace users

- British Gliding Association (Air Sport Organisation) (Chief Executive Officer)
- British Model Flying Association (Air Sport Organisation) (Chief Executive Officer)

2 Academics

- Centre for Connected and Autonomous Automotive Research, Centre for Future Transport & Cities, Coventry University (Director)
- Supply chain operations at Coventry University (Assistant Professor)

1 Wildlife trust

- Berkshire, Buckinghamshire & Oxfordshire Wildlife Trust (Head of Planning, Policy & Advocacy)

1 Transport policy agency

- England Economic Heartland (Head of Decarbonisation and Innovation)

14 potential users

4 surveying/inspection

- DroneAg (Drone lead)
- Carrot Drone Services (Director & UAV Operator)
- AUAV: Drone Services and Drone Solutions (UK Operations Manager)
- Environmental surveying/inspection (remain anonymous)

4 logistics companies

- Restore Harrow Green Laboratory Services (Head of Operations for Life Sciences)
- Sustainable logistics (remain anonymous)
- Third-party logistics (remain anonymous)
- Global logistics (remain anonymous)

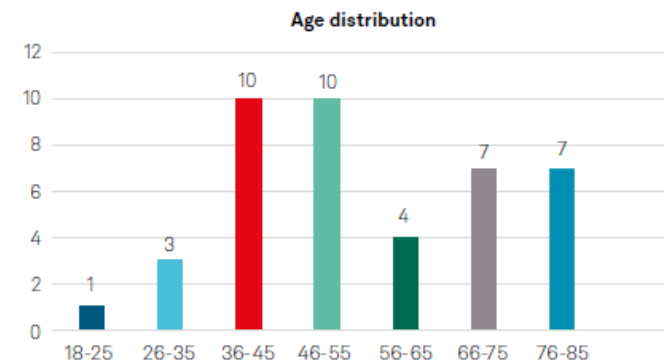
3 blue light services

- London Fire Brigade (Station Officer, Operational Policy – Rescue Drone Team)
- Maritime Rescue Charity (remain anonymous)
- The Welsh Ambulance Services University NHS Trust (Assistant Director of

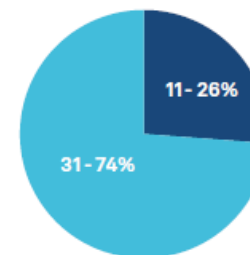
Lead by Connected Places Catapult with the 3 Local Authorities, used to gain a better understanding of public concerns and knowledge of drones, to influence our decision making.

Source: Project Skyway Stakeholder Engagement Report, Connected Places Catapult, June 2024

Demographic characteristics of 42 public focus group participants (9 Coventry, 16 Oxfordshire, 17 Reading)

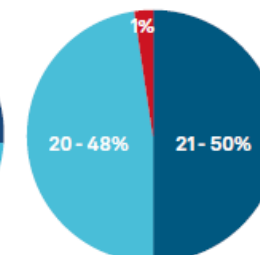


Urban vs rural residency



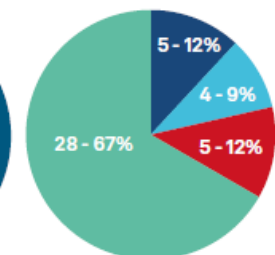
■ Rural ■ Urban

Gender



■ Male ■ Female
■ Non-binary

Ethnicity



■ Asian or Asian British
■ Mixed or multiple ethnic
■ White non-British
■ White British

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USE-CASES

SKYWAY USE CASE ANIMATION



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PROJECT STATUS

PROJECT STATUS UPDATE

- A 6-month project extension was granted from 31st July 2024 to 31st January 2025 to enable continued testing and collaboration with the Civil Aviation Authority (CAA).
- Live testing of the system and potential service is ongoing throughout the remainder of the project.
- Documentation to the CAA is progressing for review and certification award process.
- Once granted, a trial period is planned to commence with the CAA from Spring 2025, with commercial operations to follow on from Winter 2025 onwards.

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THANK YOU