



How UK Publics View Trade-Offs in BVLOS Drone Use

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1. Executive Summary

BVLOS drone operations are already underway in the UK and are set to become routine across aspects of public sector and commercial services delivery by 2027-28. This report presents findings from six focus groups exploring how UK publics reason about three BVLOS public sector and commercial use cases (medical deliveries, police operations, and commercial package delivery)¹. This research importantly allowed us to explore how publics view the trade-offs between use cases as BVLOS drone use is scaled up in the UK as part of an emerging drone system rather than as isolated use cases.

Within the focus groups, participants produced a medical > police > commercial use hierarchy that was relatively stable across all six groups, driven by an underlying logic: participants assessed whether a use case met a genuine social need, whether the benefits outweighed the disbenefits, and whether the institution using the drones was both trustworthy and subject to oversight. When asked to reason about the use cases as a system, three distinct positions emerged: refusal, conditional acceptance, and inevitability.

Four recommendations follow:

- 1) Do not assume the 'drones for good' narrative will support communications campaign agendas or result in a positive public reception. When people consider drone uses as a system, rather than by individual use case, association with the less desirable uses can undermine acceptance of more beneficial ones rather than vice versa. Communications strategies should reflect the full system, honestly explaining both positive and negative potential impacts (along with suggested mitigations for any negative impacts), not just

highlight what might be perceived to be the most popular use cases.

- 2) Seek to address perceived democratic deficits. Participants across all six groups mentioned the absence of public consultation as being a real concern. Accordingly, there is a clear need for genuine structures for community engagement prior to and during BVLOS drone use being scaled up.
- 3) Act before the window closes. The currently planned timelines for rollout of BVLOS drones means the opportunity for engagement is open but quickly closing. The public clearly has an appetite for engagement and participation, and this needs to be met while there is still time.
- 4) Be sensitive to different communities' needs without treating them as a monolith. Geography shapes attitudes but it does not determine them. For example, there may be more support for specific use cases in rural communities than urban, but this will still be nuanced and in places contingent. Engagement strategies must be locally sensitive while avoiding treating any community as a single homogeneous group.

2. Introduction & Policy Context

The United Kingdom is at a pivotal moment in the governance of its airspace and of drone technology. The Civil Aviation Authority's 2025 BVLOS Roadmap

¹ This research is drawn from six focus groups conducted in March 2026, involving 34 participants from across England and Wales. Groups were organised by area type, covering city centres, outer urban areas, town and small city centres, outer town areas, village and rural areas, and remote rural areas. Recruitment aimed for a sample frame with a mix of age, gender and ethnicity broadly representative of the UK population. Focus groups were conducted online via Zoom and lasted approximately 90 minutes each, with two University of Birmingham researchers facilitating.

(CAP3182) sets out targets for beyond visual line of sight (BVLOS) drone operations (in which aircraft fly beyond the direct sight of their operators) to become a routine feature of UK airspace by 2028. Indeed, a stated objective is the enabling of "routine BVLOS drone operations for key government priority use cases including the NHS, emergency services, infrastructure surveying and commercial delivery operations, with capability delivered iteratively between now and 2027".² Across the public and commercial sectors, trials and operations are already well underway. These include:

- NHS drone operations with the London Health Bridge project between Guy's and St Thomas' hospitals, which are the first urban low-level BVLOS operation in the UK.
- Amazon's trial in Darlington, which is the country's first commercial BVLOS delivery operation.
- The NPCC has been running a dedicated BVLOS Pathway Programme since March 2023, funded by the Home Office, which has established Drone as First Responder trials across five forces.

This policy context is shaped by a number of different documents with similar commitments. The Department for Transport's Future of Flight Action Plan frames drone deployment through a 'drones for good' narrative of public benefit, positioning them as providing "essential public services, including NHS transport and medical deliveries, search and rescue, monitoring the environment and new tools for the Police to tackle crime".³ The plan commits to engaging communities "early and consistently" and to transparency with the public about plans and proposals.⁴ Within policing specifically, the National Policing Digital Strategy 2025-2030 cites the use of drones, listing "drones, body-worn cameras, and

real-time surveillance tools" as a part of its core ambition of protecting the public.⁵ The Home Office's 2026 policing White Paper has similarly relevant policy aims, identifying emerging technologies as central to meeting the challenges of increasingly technologically sophisticated criminals, but doing so in a way that "builds and maintains public consent".⁶ Across all these documents, there is a clear aim: to deliver the benefits of drones at pace, in a way that is responsive to public hopes and concerns. However, without robust public engagement, there is a real risk that roll-out proceeds without public trust, generating resistance that could undermine both the public buy-in for beneficial uses and the broader economic case for commercial BVLOS integration in the UK. As this report's findings make clear, the window for building that trust is open now, but will quickly shut as operations become established. Delivering on these policy commitments, and doing so before that window closes, requires robust evidence of what the public actually thinks. This report provides exactly that, presenting findings from the first research designed to specifically explore how UK publics reason about potential trade-offs between BVLOS drone use cases across the medical, policing and commercial sectors. Its findings are intended to directly inform the communication strategies and public engagement frameworks that policymakers are developing as BVLOS drone operations are introduced to UK communities.

Prior University of Birmingham research, conducted as part of the UKRI Future Flight Challenge, has established a baseline picture of UK public attitudes toward drone use, showing broadly positive attitudes toward socially beneficial applications, strong support for independent oversight, and consistent concerns around privacy, surveillance and commercialisation. This body of work included a deliberative public dialogue in which members of the public developed 14 principles they wanted to see

² Civil Aviation Authority, *Future of Flight: BVLOS Roadmap*, CAP3182 (London: Civil Aviation Authority, 2025), p.3, available at <https://www.caa.co.uk/our-work/publications/documents/content/cap3182>

³ Department for Transport, *Future of Flight Action Plan* (London: Department for Transport, March 2024), p.7, available at <https://www.gov.uk/government/publications/future-of-flight-action-plan>. Note: This document was published under the 2022-2024 Sunak Conservative government.

⁴ Department for Transport, *Future of Flight Action Plan* (London: Department for Transport, March 2024), p.21 (also see p.14), available at <https://www.gov.uk/government/publications/future-of-flight-action-plan>.

⁵ National Police Chiefs' Council/Police Digital Service, *National Policing Digital Strategy 2025-2030* (2025), p.22, available at https://pds.police.uk/wp-content/uploads/2025/05/250519-NPCC-Digital-Strategy_FINAL.pdf.

⁶ Home Office, *From Local to National: A New Model for Policing*, CP 1489 (London: Home Office, January 2026), p.13, available at <https://www.gov.uk/government/publications/from-local-to-national-a-new-model-for-policing>.

underpin the rollout of drone technologies.⁷ These principles were subsequently tested in a nationally representative survey of 3,279 UK adults and found broad endorsement across all 14 principles, with support ranging from 67% to 85%.⁸ However, that work examined use cases individually and did not explore how publics perceive BVLOS use cases in relation to each other as part of a wider interconnected system of drone use (akin to the ways in which our roads and related infrastructure are used by ambulances, police vehicles, and HGVs). This report addresses that gap directly, presenting findings from six focus groups exploring public attitudes toward three BVLOS use cases: medical delivery, police operations, and commercial delivery. It is the first study to test whether acceptance of beneficial uses generates broader acceptance of drone technology, or whether association with less popular uses can undermine acceptance of the more beneficial ones.

3. Individual Use Case

3.1 Medical Use

Medical drone delivery was positively received across all six groups, with few concerns raised. Participants generally responded with excitement, describing the concept as "a brilliant idea" (Focus Group 3) and expressing enthusiasm for its potential to address real healthcare delivery problems. One participant who worked in hospital pharmacy spoke from direct professional experience: "we've had multiple delays where patients have not been able to get the medication, appointments have to be cancelled. I think it's really positive" (Focus Group 3). Another highlighted the specific benefit for people receiving chemotherapy who face long journeys to regional hospitals (Focus Group 2). Acceptance often

flowed from a needs-based logic: participants approved because the use case met a clear social need. One participant in Focus Group 5 summed up a widely shared view: "I can't see there being any negatives at all with it from a medical perspective." This reflects the first principle established in the prior public dialogue on Future Flight: that these technologies "must be used for public good", including "use cases that protect human life and improve connectivity for rural, remote and hard-to-reach places".⁹

Acceptance was also tied to trust in the NHS as an institution. As one participant put it: "I don't mind a bit of noise disturbance, and I've got faith in the NHS as an institution to be doing this legitimately" (Focus Group 2). Minor concerns around safety, security and noise were raised but generally treated as addressable issues rather than insurmountable problems. Although one more specific, and noteworthy, concern came from a participant who worried about the impact on patients in psychiatric units or hospitals: "if they could see the drones landing [...] [that] would create a degree of paranoia with, like, people who are suffering from psychosis" (Focus Group 3).

3.2 Police Use

Police drone use generated more varied and more cautious responses than medical use. Participants across the groups drew a distinction between specific targeted uses (such as search and rescue, monitoring hostile environments, and tracking railways), which they broadly supported, and general surveillance, which they did not. The former were seen as legitimate uses that, similar to medical uses, met a genuine social need (such as keeping officers out of harm's way): "the ones like, you know, monitoring railway trespassing, it means that the police themselves aren't putting their own bodies on the line in those dangerous situations" (Focus Group 4). General patrol and surveillance, by contrast,

⁷ Thinks Insight & Strategy, *Framework for Future Flight in the UK: Principles from a Deliberative Public Dialogue* (London: Thinks Insight & Strategy/UKRI, July 2024), available at <https://futureflightssocial.ac.uk/research/public-dialogue-principles/>

⁸ Fern Elsdon-Baker, Rebecca Hughes, Will Mason-Wilkes and Adam Green, *Navigating Future Flight: Societal Principles for Drones and Advanced Air Mobility in the UK* (Birmingham: University of Birmingham, 2025), available at <https://futureflightssocial.ac.uk/research/title-23/>

⁹ Thinks Insight & Strategy, *Framework for Future Flight in the UK: Principles from a Deliberative Public Dialogue* (London: Thinks Insight & Strategy/UKRI, July 2024), available at <https://futureflightssocial.ac.uk/research/public-dialogue-principles/>, p.3

prompted significant unease: "general surveillance and just patrols and things like that. I think that would be a massive overreach of the technology and a real invasion of privacy." (Focus Group 2).

Indeed, many participants raised concerns about surveillance overreach and misuse. One participant, a wheelchair user who described prior experience of being followed by police, expressed distrust of how the technology would be deployed in practice: "In theory, absolutely brilliant use. In practice, protest tracking, profiling tracking... I don't trust that it won't be used to further embed the issues that the police service already has" (Focus Group 5). A retired police officer raised similar concerns around the BVLOS dimension specifically: "if this is going to then be used out of public view, it then becomes, like, very 1984 of, like, public space surveillance" (Focus Group 3). Indeed, this chimes with work of the Future Flight public dialogue, in which participants established a specific principle the "use of drones for surveillance must be proportionate to the level of the potential threat, with clear guidelines".¹⁰

Acceptance of police use was conditional on accountability and oversight. Some participants were comfortable with police drone use precisely because of the governance structures they associated with policing: "I personally feel safer that it's being used for police than Amazon deliveries... there's a level of security that there's been, like, DBS checks, and it won't just be potentially anyone." (Focus Group 3). Others stressed that they would want to know that regulation and oversight was in place ahead of roll-out of these drones. For example, one participant shared that they "would want to know why the police had been given permission to use a drone in every circumstance that they used it in. I wouldn't want it to just become habitual [...] it's about really strict regulation." (Focus Group 2). Notably, even a former police officer felt that BVLOS surveillance specifically would require careful regulation: "if it's going above the public view [...] you're going into the realms of surveillance, which is a whole new,

different ballgame, and I think that would need heavily regulating" (Focus Group 3). This similarly reflects principle (iv) developed by members of the public as part of the Future Flight public dialogue, which states that operators of these technologies "must be held to account by independent bodies".¹¹

3.3 Commercial Use

Commercial drone delivery was the least favourably received of the three use cases across all six groups. It was frequently described as unnecessary and frivolous, with the example of home coffee deliveries being particularly symbolic of this for participants: "I mean, getting an emergency coffee is just ridiculous, isn't it?" (Focus Group 1); "is there really the need for us to be able to have a three or four pound coffee delivered, you know, via drone. What's wrong with walking around the corner" (Focus group 4).

As with other the other use cases, the underlying logic around acceptance or rejection was often needs-based. Participants did not oppose commercial delivery in principle. Indeed, there were contexts in which commercial delivery was viewed very positively. For example, commercial deliveries to remote or hard-to-reach communities were seen as meeting a genuine social need: "I think this could work really well in the Scottish islands that are very remote... there's a lot of things that need to be delivered [...] on a regular basis" (Focus Group 3). But when these uses were perceived as less necessary, participants often felt that the price of having drones in the sky was not justified: "I don't particularly [...] want loads of drones, you know, delivering my coffee beans and stuff which could be viewed in comparison to the previous two examples as being quite frivolous, almost" (Focus Group 2). Once again, this reflects principle (i) from the Future Flight public dialogue: these technologies "must be used for public good – they should only be rolled out if there are more positive impacts than negative ones for society as a whole".¹²

¹⁰ Thinks Insight & Strategy, *Framework for Future Flight in the UK: Principles from a Deliberative Public Dialogue* (London: Thinks Insight & Strategy/UKRI, July 2024), available at <https://futureflightsocial.ac.uk/research/public-dialogue-principles/>, p.6

¹¹ Thinks Insight & Strategy, *Framework for Future Flight in the UK: Principles from a Deliberative Public Dialogue* (London: Thinks Insight & Strategy/UKRI, July 2024), available at <https://futureflightsocial.ac.uk/research/public-dialogue-principles/>, p.4

¹² Thinks Insight & Strategy, *Framework for Future Flight in the UK: Principles from a Deliberative Public Dialogue* (London: Thinks Insight & Strategy/UKRI, July 2024), available at <https://futureflightsocial.ac.uk/research/public-dialogue-principles/>, p.3

3.4 The Hierarchy of Use Cases & What Drives It

These discussions surfaced a medical > police > commercial ranking that emerged unprompted by researchers, and which was remarkably stable across all six groups (although there was a small number of participants who ranked commercial delivery as more beneficial than police use). This consistency is in and of itself a useful finding: it suggests that the public has a coherent framework for evaluating BVLOS drone use cases. The underlying logic driving this hierarchy was needs-based rather than sector-based. Generally speaking, across the groups participants were assessing whether a use case met a genuine social need, whether the benefits outweighed the disbenefits, and whether the institution deploying the drones could be trusted to act in the public interest and was subject to appropriate oversight. Medical drone use scored well on all three criteria. Police drone use scored well on the first two for certain specific applications such as search and rescue and keeping officers out of dangerous situations, but generated significant concern around the third, particularly in relation to surveillance and the potential for misuse. Commercial use struggled on the first and second criteria: participants found it difficult to identify the social need that most commercial delivery applications met, particularly in urban settings where alternatives already existed, and questioned whether the convenience of faster delivery justified the presence of drones in shared public airspace.

This hierarchy is also broadly visible in a nationally representative survey run by the University of Birmingham in 2024/2025.¹³ In this survey medical drone delivery was seen as beneficial by 55% of urban respondents, rising to 70% in remote and isolated communities, with only 5% saying it was not

beneficial in any community.¹⁴ Police use had an endorsement ranging from around 65% in urban areas to 55% in rural areas.¹⁵ Commercial household delivery uses attracted the lowest endorsement, at around 35% in urban areas, rising to around 59% in remote and isolated communities.¹⁶ Notably, in rural and remote communities commercial delivery uses experienced a similar endorsement to police uses, a pattern that reflects the specific value participants placed on drone delivery as meeting a social need (such as poor connectivity and limited access to services). Only 5% of respondents saw no benefits across any location of medical drone use, compared to 12% for police use and around 11% for commercial household delivery.

4. Trade-offs: Three Public Logics

4.1 The Trade-off Question and Why It Matters

The individual use case discussions explored in Section 3 asked participants to evaluate medical, police, and commercial drone use separately. The trade-off section of the focus groups introduced a different question: "Would you be willing to accept the most beneficial use case if it meant the least beneficial use case happened too?" This framing is important because it forces participants to reason about use cases as a system rather than in isolation, thereby more accurately reflecting the potential system (in which medical, police, and commercial BVLOS drones would share airspace and regulatory frameworks).

¹³ Where survey data presented it has been taken from survey samples collected by YouGov on behalf of the University of Birmingham between December 2024-January 2025, nationally representative sample of 3588 UK adults aged 18+. *Survey Question: Listed below are some examples of the ways in which non-passenger carrying drones might be used. For each use listed, please indicate whether you think non-passenger carrying drones would be beneficial or not beneficial within different types of community in the UK. Please select all communities, if any, where you think this technology would be beneficial.* 1) Beneficial in urban locations (e.g. city and town centres), 2) Beneficial in sub-urban locations (e.g. outside city/town centres), 3) Beneficial in rural locations (e.g. villages and countryside), 4) Beneficial in remote or isolated locations (e.g. islands or mountainous areas), 5) Not beneficial to any community in the UK, 6) Don't know.

¹⁴ Ibid

¹⁵ Ibid

¹⁶ Ibid

The question also tests the assumptions of the dominant "drones for good" narrative mentioned above: that public acceptance of beneficial uses will generate broader acceptance of drone technology as a whole. In fact, the prior Future Flight public dialogue and survey data indicated that this assumption should be critically evaluated. Specifically, it showed that support for beneficial uses coexists with substantial concerns that do not simply dissolve because of the presence of a positive use case.

The focus group data goes further still. Rather than beneficial use cases generating goodwill for drones as a whole, the trade-off discussions revealed that negatively perceived use cases can lead to hostility towards the rollout of drones in general. Three distinct positions emerged regarding the acceptability of the trade-off: refusal, conditional acceptance, and inevitability. Each is explored in sections 4.2 to 4.4 below.

4.2 Position One: Refusal (the contamination logic)

A significant minority of participants rejected the trade-off outright. Their reasoning could be considered a logic of contamination: when asked to evaluate the use cases as a system rather than in isolation, the presence of commercial use cases reduced the acceptability of the whole, even where participants supported medical use. This undermines the "drones for good" narrative's core assumption: rather than beneficial uses generating broader acceptance of drone technology, the association with commercial use pulled in the opposite direction.

In Focus Group 3, one participant drew an explicit calculation of benefits vs disbenefits: "if it means the whole sky's gonna be Amazon [for] one NHS delivery, then I don't think it's worth it." In Focus group 6, several participants expressed similar sentiments: "I agree with it for the medical, but having to have the package deliveries, that would be too... I think it would become a free-for-all"; and "the idea that if it was a choice of having the medical supplies with the

caveat of also having the Amazon deliveries and such bobbing about, it'd be a category of no for me." Importantly, the calculation of benefits vs disbenefits was core to this contamination logic: participants were worried about the sheer volume of disbeneficial commercial operations relative to beneficial medical uses.

4.3 Position Two: Conditional Acceptance

The most prevalent position across the six groups was conditional acceptance: a willingness to accept the trade-off, but only if commercial use was subordinated to uses with greater perceived social benefit. Participants had specific ideas for how this might look: regulations or licensing mechanisms that guaranteed commercial operators provided infrastructure for more socially beneficial uses, prioritised airspace or flight allocations for medical use, and time restrictions on commercial operations. "Do you say to Amazon, yes, you can deliver your groceries, but also 10% of your drones must be available for medical usage? Is that a sort of scenario that's being used elsewhere? So, you can do the coffee bean delivery as long as you take blood and organs." Focus Group 2

Importantly, many of the sentiments expressed by these participants map closely onto the principles developed in the prior Future Flight public dialogue.¹⁷ As noted earlier, these principles have found wide support at the national level, suggesting that the desire in these focus groups for conditions that ensure commercial use serves the public good reflects a broader national sentiment.

4.4 Position Three: Inevitability

A third position treated the trade-off question as largely moot. For these participants, commercial roll-out was inevitable, and the more meaningful question was how to manage and mitigate its worst consequences.

¹⁷ Thinks Insight & Strategy, *Framework for Future Flight in the UK: Principles from a Deliberative Public Dialogue* (London: Thinks Insight & Strategy/UKRI, July 2024), available at <https://futureflightsocial.ac.uk/research/public-dialogue-principles/>

"I don't think it's an either-or [...] the case you just put to us is never going to happen. I think it's coming. I think all we can do is mitigate the worst excesses of it." Focus Group 6

The focus therefore shifted from whether to how, with participants emphasising the need for proactive legislation and slower implementation timelines.

"What needs to happen is that the introduction period needs to be extended, instead of having [20]26, [20]27, [20]28. It needs to be [20]26, [20]32, [20]40. And then we've got time for policymakers to put things in place." Focus Group 6

"I think once the dragon is unleashed, how can you put it back in the bottle? I don't think you can... It's happening, it's just a case of how we manage it and how we regulate it." Focus Group 3

5. Conclusion

The findings presented in this report carry four headline implications for policymakers working on the governance and rollout of BVLOS drone operations in the UK.

- 1) **The "drones for good" narrative requires scrutiny:** As previously described, there is currently a "drones for good" narrative present in government and industry communications on drone integration, which assumes that acceptance of beneficial uses generates broader acceptance of drone technology more generally.¹⁸ The data presented here suggests the opposite is *at least* as likely. When participants were asked to reason about use cases as a system, the presence of commercial delivery (and its perceived associated nuisances) actively undermined the acceptability of the whole package for a significant proportion of

participants, rather than medical use lending legitimacy to commercial use. Policymakers should not assume that leading with positive use cases will build general support.

- 2) **Public engagement and the democratic deficit:** Participants raised the absence of public consultation as a concern in its own right, as these comments from participants in Focus Group 1 attest: "Can anyone vote against it? If we didn't do this, I wouldn't have no idea what they're doing, so no one knows. Does anyone know? Has anyone asked for it? You know, has anyone been consulted?"

"There's not enough information given to residents as to what's going on, so they get concerned when the drones are active."

This indicates that two things are therefore needed. First, better communications: not simply highlighting the benefits of drone technology but giving communities a realistic and honest picture of the full system, its potential benefits and implications. Second, structures need to be put in place for meaningful community engagement, consultation, and influence over how and where drone operations are introduced. This is a solvable problem, and the window to address it is still open.

- 3) **The window for trust-building:** On that point, the window for trust-building is now, before BVLOS operations become routine. Participants who had been informed of the CAA's rollout timelines were concerned by then: "If you try and implement it by [20]28, it's going to just be a free-for-all, and the skies will be dominated by Amazon." Focus Group 6

What is clear from these findings is that the public has a real appetite for engagement in these decisions. That appetite needs to be met now, while there is still time to act on it.

¹⁸ See for example <https://www.gov.uk/government/news/new-aerospace-innovation-to-propel-uk-to-growth-and-greener-skies-backed-by-273-million> which highlights "active public outreach and communications underlining the positive potential uses for and benefits of commercial drones"

4) Different regions have different needs (but these communities are not monoliths): There was some variation in concerns and priorities by geography. Rural participants, for example, were more likely to raise issues around noise disruption, weather reliability, and the risk that new technologies would either invade their communities or bypass them entirely. However, it would be a mistake to consider these groups as monoliths, as there was considerable variation within these groups as well. Moreover, concerns about surveillance, accountability and democratic deficit cut across all groups regardless of location. Community engagement strategies, then, need to be locally sensitive but also to avoid assuming location determines priorities.

Future Flight Social Insight.

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