

Drone Evolution 2025 Overview

1. Executive Summary

Drone Evolution is pioneering a sovereign, scalable, and resource-efficient drone manufacturing capability in the UK, with a sharp focus on First Person View (FPV) drones. In response to growing geopolitical and operational risks associated with foreign-sourced components—particularly from the PRC—we have developed a near-complete UK-based supply chain. Our innovation lies in designing and assembling FPV drones using domestically sourced or non-Chinese components, including our own flight controllers, ESCs, frames, and batteries, with motors currently in prototype. This positions us as a strategic enabler for the UK's defence and security sectors, aligning with the 20/40/40 Strategic Defence Review and the urgent need for sovereign stockpiles.

2. The Problem

The Defence and Security sectors face a critical vulnerability: reliance on foreign—often adversarial—supply chains for drone technology. This dependency introduces risks in availability, security, and compliance. The war in Ukraine has further highlighted the tactical importance of FPV drones in modern warfare, yet most systems in use are built with Chinese components, raising concerns over data integrity, supply chain resilience, and operational sovereignty.

3. The Innovation

Drone Evolution's core innovation is the development of a sovereign FPV drone platform, engineered and assembled in the UK. Over the past year, we have:

- Designed and manufactured our own flight controllers, ESCs, frames, and batteries.
- Prototyped motors to complete the full-stack UK-based solution.
- Partnered with UK contract manufacturers to ensure flexibility and scalability in sourcing and assembly.
- Built a team of technical engineers, drone racers, and former Ukrainian soldiers who bring real-world battlefield experience to our R&D process.
- We are agile enough to get to prototype within weeks or even days, which we recently proved with a UK client who wanted a particular solution for room search, getting to prototype within a week of request.

This innovation is not just about hardware—it's about creating a resilient, sovereign supply chain that can adapt to operational needs and geopolitical realities. Our modular design allows for rapid iteration and deployment, while our in-house expertise ensures continuous improvement and mission-specific customisation. In addition, we are able to support the user with training and maintenance packages, providing an end-to-end solution for our clients.

4. Evidence of Impact

Our FPV drones have been tested and used in real-world scenarios, including battlefield conditions in Ukraine. Feedback from former soldiers on our team has directly informed design improvements, resulting in:

- Increased durability and survivability in combat environments.
- Ease of repair and replacement of parts in the field rather than having to return to base
- Improved flight stability and control, critical for precision missions.
- Reduced electromagnetic signature, enhancing stealth capabilities.

We have systems already in place with several of UK MoD's units, helping them with readiness for combat. Neil Gainsford, Warrant Officer in charge of organising the roll-out of FPV training for MoD in Lulworth Cove has said "We have used Drone Evolution's FPVs for some time now and we find them excellent. The build quality is great and they work straight out of the box. The support the Drone Evolution offer has been vital in helping us to set up our training school. Highly recommended". We have also worked closely with ITDU, and Col Dawe has described our systems as "absolutely necessary for modern warfare". We have had positive feedback from Ukrainian units who have used our drones on the front line. We have also received interest from further UK defence buyers and integrators seeking alternatives to PRC-sourced systems. Our drones have been showcased in live demonstrations, with positive feedback on performance, build quality, and ease of deployment.

5. Alignment to the Sector

Drone Evolution's innovation directly supports the Defence and Security sectors by addressing three critical needs:

1. Sovereignty – Our UK-based supply chain reduces dependency on foreign components, aligning with national security priorities.
2. Operational Readiness – Our drones are designed for immediate deployment, with minimal training required.
3. Strategic Fit – We align with the MOD's 20/40/40 vision, supporting the need for rapidly deployable, cost-effective, and sovereign drone systems.

Our work also supports broader goals in Aerospace, where secure, adaptable drone platforms are increasingly vital for surveillance, logistics, and emergency response.

6. Scalability and Future Plans

Our innovation is inherently scalable due to:

- Modular design – Components can be upgraded or replaced without redesigning the entire system.
- Flexible manufacturing – Our UK partners can scale production rapidly, and we can replicate this model in allied territories.
- Team readiness – Our multidisciplinary team is equipped to support R&D, production, and deployment at scale.

We are currently:

- Finalising motor prototypes to complete the sovereign stack.
- Exploring export opportunities with NATO allies seeking non-PRC drone solutions.
- Delivering training modules for rapid operator onboarding.
- Engaging with defence primes to integrate our systems into broader tactical platforms.

Our roadmap includes expanding into autonomous swarm capabilities and AI-enhanced targeting, further increasing our value proposition.

7. Conclusion

Drone Evolution is not just building drones—we are building the future of sovereign, scalable, and secure drone capability for the UK and its allies. Our innovation addresses a real and urgent problem in the Defence and Security sectors, with a solution that is operationally ready, resource-efficient, and strategically aligned. With proven impact, a clear path to scale, and a passionate, experienced team, we are ready to support the soldiers of today in the wars of tomorrow.

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