

Case Study:

→ **Manna  
Drone  
Delivery**  
Europe's Largest  
B2C Drone  
Delivery Network



**FOUNDERS:** Bobby Healy CEO,  
Alan Hicks CTO, Eoghan Huston CFO

**LOCATION:** Dublin, Ireland

**TEAM SIZE:** 120+

**SET-UP:** Urban, Suburban

**SYSTEM READINESS LEVEL (SRL):** 8

**FOUNDING YEAR:** 2018

[manna.aero](https://manna.aero)



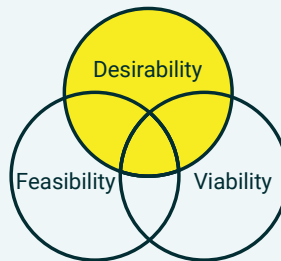
## At a Glance

Founded in 2018, Manna Drone Delivery is a leading drone delivery service based in Dublin, Ireland, pioneering the use of autonomous drones in urban logistics. The company specializes in last-mile delivery, providing fast and environmentally friendly options for delivering food, groceries, and other small packages directly to consumers. Manna's drone technology is designed to support urban and suburban areas, addressing the growing need for efficient, scalable, and sustainable delivery solutions in cities.

Manna Drone Delivery is among the first companies in Europe to secure regulatory approval for drone deliveries in urban environments, collaborating with local governments and aviation authorities to ensure safety and compliance. Having successfully launched in Ireland, Manna is now expanding its operations globally, including new projects in the USA and Finland.

### Use Case: B2C Urban Logistics

Manna Drone Delivery's drone delivery process is designed for speed and efficiency. Customers place their orders through partner platforms like Just Eat or Tesco, selecting from a range of food or grocery items. Once the order is received, it is automatically loaded into the drone at a designated hub, ensuring secure placement and readiness for flight. Guided by AI-driven navigation, the drone flies autonomously at an altitude of 50-80 meters to the delivery location. Upon arrival, it hovers at 14 metres altitude and lowers the package to a pre-designated drop-off point. The entire process, from loading to delivery, is completed in just a few minutes, offering a fast and seamless contactless service.



### Regulatory:

- **EASA and Irish Aviation Authority (IAA):** Manna became one of the first companies to gain approval for drone delivery operations in Ireland, including Beyond Visual Line of Sight (BVLOS) operations at SAIL 3 risk level.
- **Safety and Risk Assessments:** Manna Drone Delivery conducts thorough risk assessments for every flight, ensuring compliance with EASA's Specific Operational Risk Assessment (SORA) guidelines.
- **US Federal Aviation Administration (TBC)**

“Drone delivery is faster, quieter, more scalable, and safer, providing a far better experience for customers who want everything from groceries and takeaway food to hot coffee, delivered in just three minutes. Both the speed and the cost of operation have improved significantly, with costs now reduced to a tenth of what they were in previous years. It is much more scalable, better for small and large businesses, and much better for the consumer.”

**Bobby Healy, Founder**



## Technology

### Systems

**Unmanned Traffic Management (UTM):** Manna's drones are integrated with AI-powered UTM systems, enabling real-time monitoring and safe navigation through urban airspaces.

**Safety Systems:** Each drone is equipped with redundant safety features to ensure safe landings in case of malfunctions. The drones are designed to operate safely over residential areas, with strict safety protocols in place.



### Drones (VTOL)

Drone Parameters:

- **Payload Capacity:** Up to 3.5 kg
- **Volume Capacity:** 30 liters
- **Flight Altitude:** 50-80 meters above ground level
- **Operational Range:** ~6 miles (10 km) for standard operations (10 m/s wind and rain)
- **Maximum Range:** 10 miles (16 km)
- **Delivery Precision:** Accurate package drop-off at designated locations
- **Flight Speed:** Optimized for efficient delivery in urban and suburban environments
- **Power Source:** Electric



## Business Model

### Retail Partnerships

Manna partners with any and all local business and delivery companies to embed their drone delivery service into existing logistics networks.

### Subscription and Pay-per-Delivery Models

Manna offers a subscription-based model for frequent users and a pay-per-delivery option for occasional deliveries, ensuring flexibility and affordability.



## Impact

Manna Drone Delivery's drone delivery services transform last-mile logistics by reducing urban congestion and emissions. Its zero-emission drones offer a sustainable, faster alternative to traditional road-based deliveries, improving safety and efficiency in urban areas. Manna meets the demand for quicker, contactless delivery while helping to reduce the environmental impact of logistics.

“We are at the beginning our commercial growth journey in Manna. This year we will reach 2 million deliveries annualised, and our goal over the next 3-5 years is to operate in every major European city.”

**Bobby Healy**, Founder

## Conclusion

Manna's successful operations in Ireland and the USA highlight the growing demand for B2C drone delivery and the importance of a sustainable business model to complement the technical feasibility of the service. Its work is driving the widespread adoption of drone technology in last-mile logistics, shaping the future of urban deliveries.