

# Revolutionizing Logistics with Autonomous Cargo Drones

GRASSHOPPER  
AIR MOBILITY



# The Only Drones that Drive the Last Mile



Smart air mobility integration into the  
ground logistics infrastructure



We revolutionize mobility with  
fully autonomous and sustainable  
flight-drive drones.

Founded: 2023

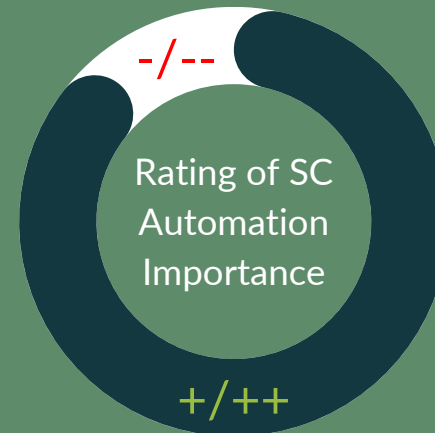
HQ: Barcelona, Spain



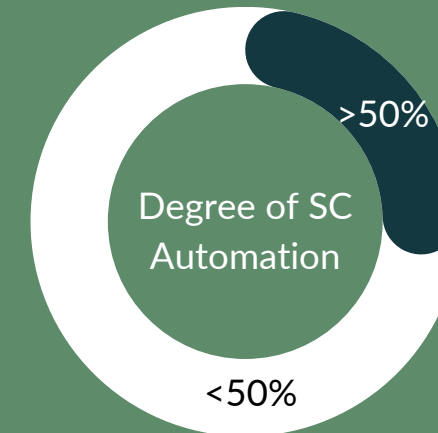


# Industrial Supply Chains Struggle with Automation Gaps

89% of companies view Supply Chain Automation as important or very important



Only 28% of companies have more than 50% of supply chain processes automated



Automation leads to procurement cost savings of up to

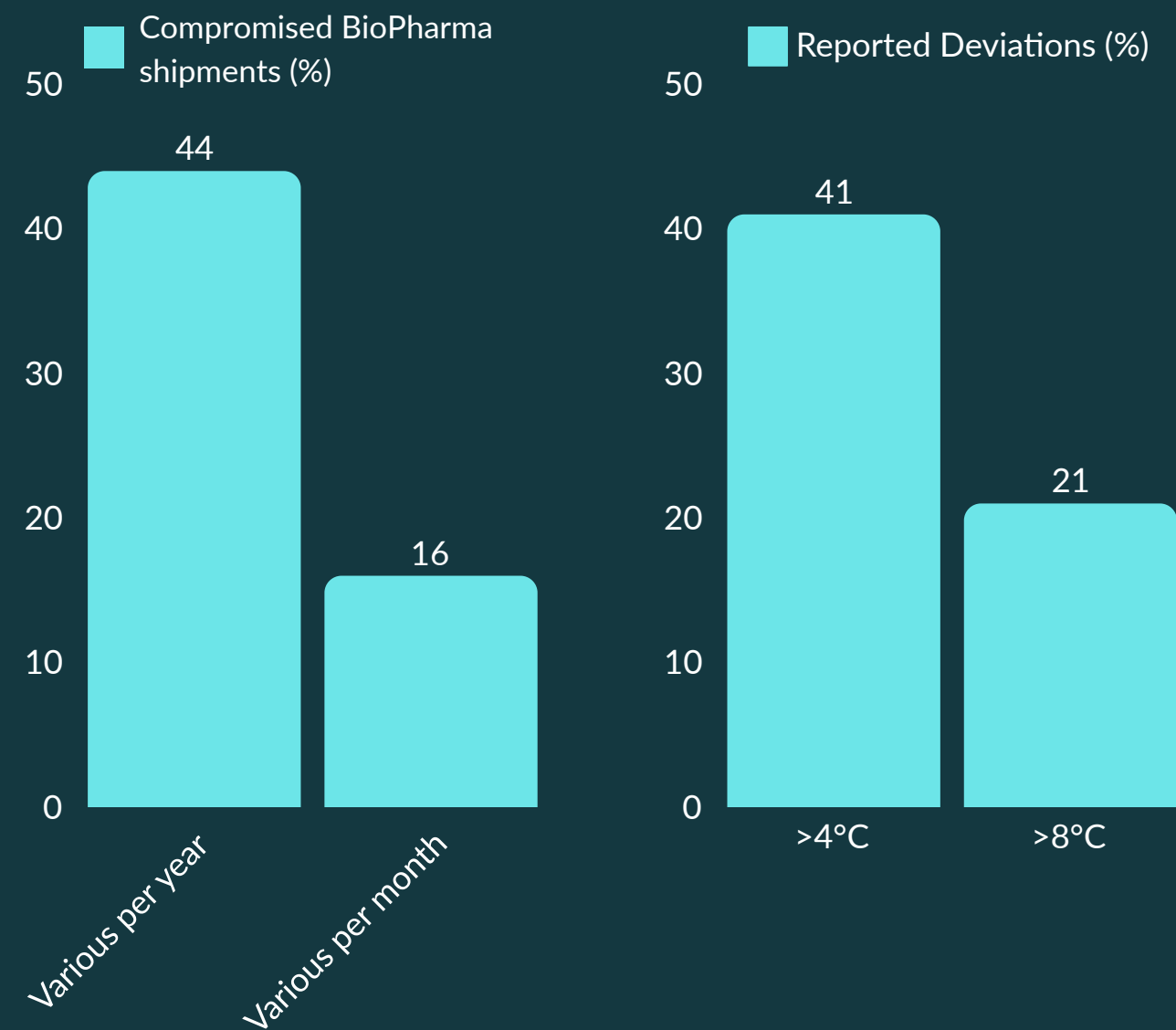
40%

Automation lacks mostly in B2B Inland Transportation segments:





# Cold Chain Failures are a Billion Dollar Challenge



70%

of EU companies lack efficient logistics cold chain capabilities at scale.

90%

use **multiple disconnected solutions** to collect data across the cold chain.

56%

use visibility tools in the cold chain but find them **unsatisfactory**.

The biopharma industry loses **\$35Bn** annually due to failures in temperature-controlled logistics.

These losses include spoiled products, clinical trial interruptions, and logistics inefficiencies.



# Current Air Cargo Logistics Can't Solve Automation and Cold-Chain Challenges



## Manual Process Reliance

Cargo handling and ground logistics depend on manual labor



## Ground-Integration Gaps

Current air logistics systems do not seamlessly integrate with ground logistics



## Landing Space Bottlenecks

Limited landing space availability and movement constraints after landing



## Remote Areas Inaccessible

Scalable Air Cargo solutions do not reach rural and isolated Regions.



# Our Fully Autonomous Cargo Drone Solution Targets Both



## Three Pieces of Hardware

1. VTOL Drone w/ drive capability
2. Cargo Container w/ batteries
3. Charging and Loading Station (CLS)



## One Autonomy Software

1. Flight
2. Drive
3. Cargo Handling
4. Charging



## One Logistics Application

1. Logistics Management
2. Interface to 3rd Parties
3. Route Planning
4. Data Room

# Cargo Drone Technology built specifically for Industrial Logistics

**One 350 kg Pallet**  
Maximum Payload

**1,87 cm<sup>3</sup>**  
Cargo Container Volume

**electric: 200 km**  
**hybrid hydrogen: 600 km**  
Flight Range

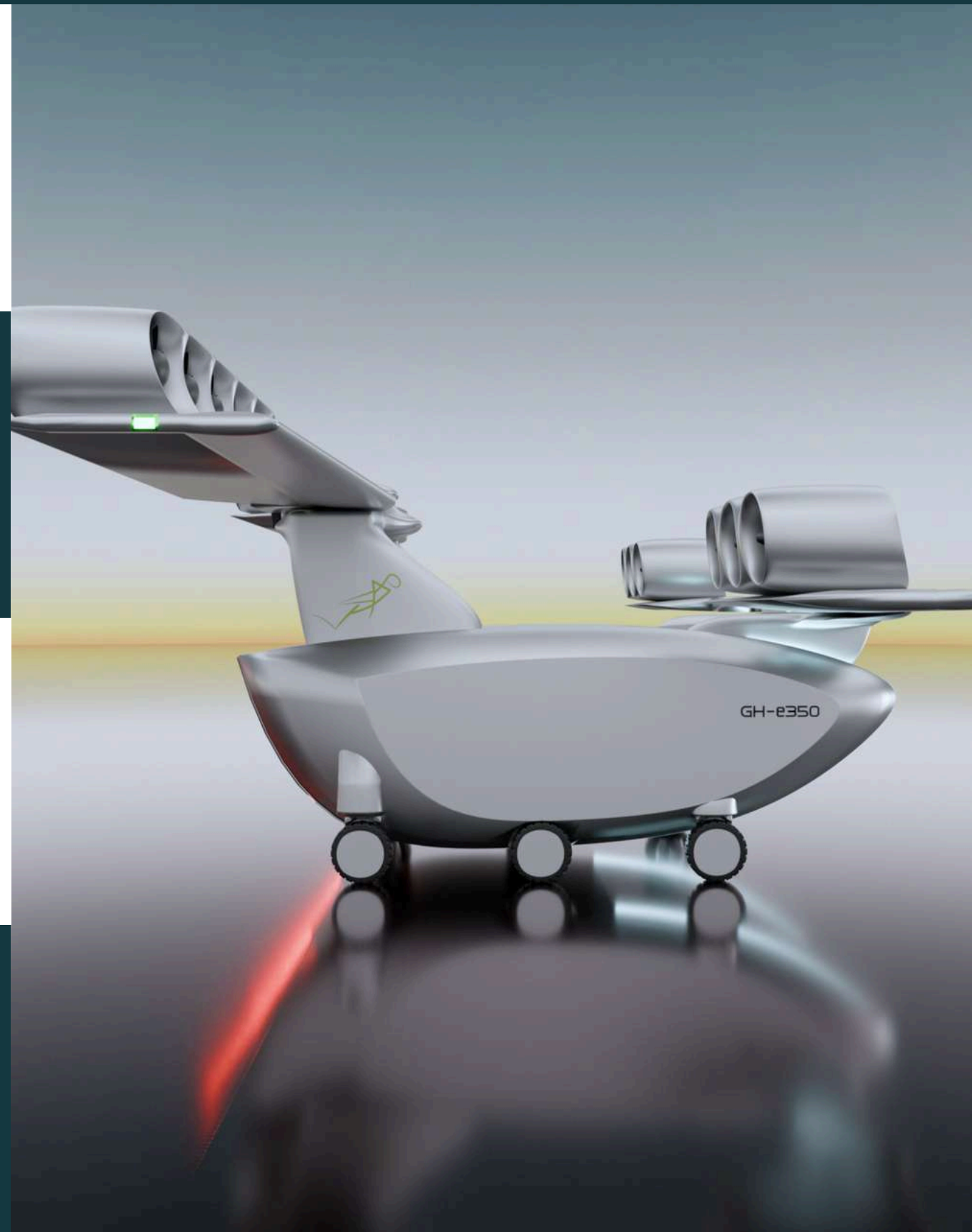
**unfolded: 8.4 m**  
**folded: 3 m**  
Wingspan

**100 km in < 30 min**  
Flight Speed

**~ €1,5 ct / kg / km**  
Competitive Pricing

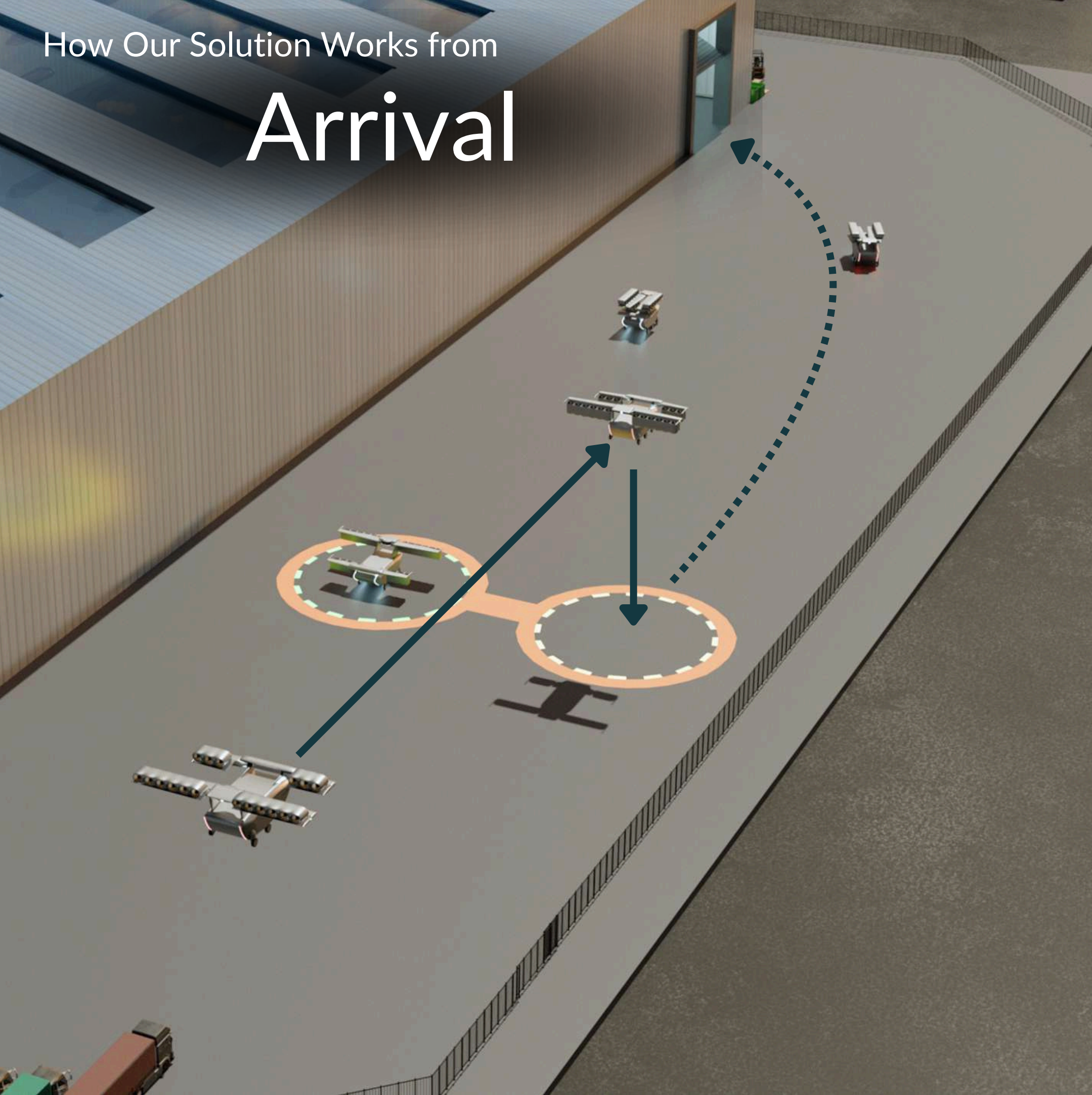
**10 km**  
Drive Range

**2028**  
Target Certification Year





# How Our Solution Works from Arrival



The e350 drives to an empty  
Charging and Loading Station



The cargo container is deposited with  
emptied batteries and goods



The container charges and is unloaded  
manually or automatically





# Charging & Loading



Cargo can be handled via conveying systems...



...AGVs...

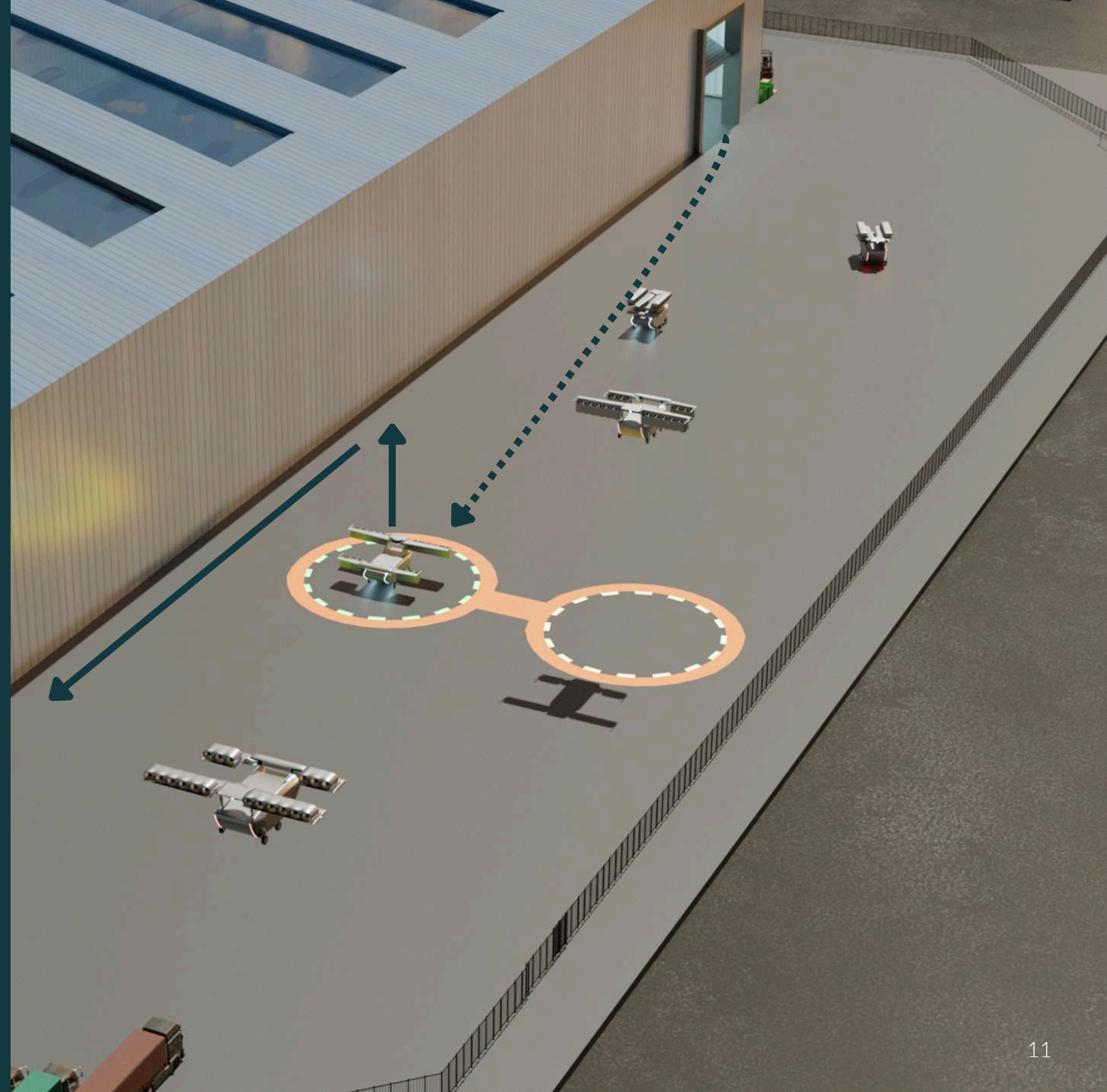
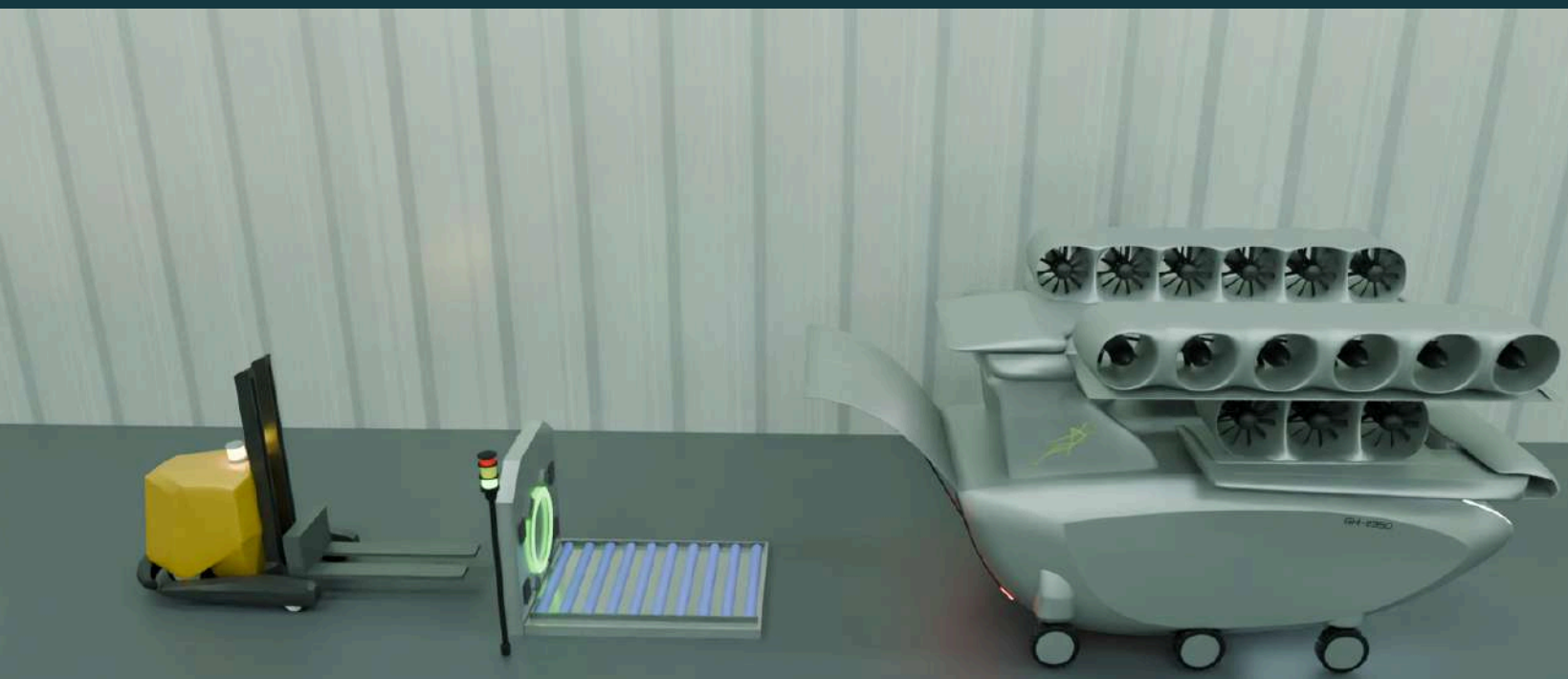


...or forklifts.



# to Departure

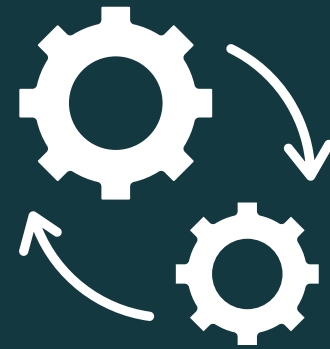
The next container has pre-charged batteries and is already loaded with new cargo





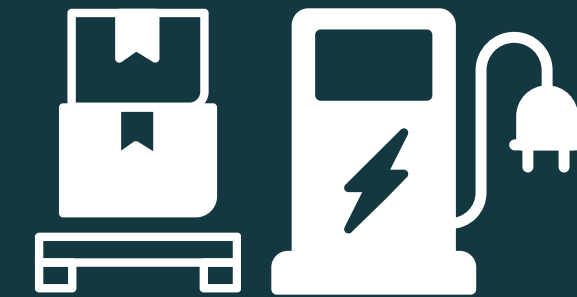


# Game-Changing Integration of Air Logistics with Ground Logistics



## Eliminating **Manual Handling**

through autonomous mobility and fully automated loading, unloading, and charging.



## Integrating into **Ground Logistics**

through our cargo container and the Charging and Loading Station.



## Removing **Landing Site Bottlenecks**

through driving into logistics sites after landing.



## Accessing **Remote Areas**

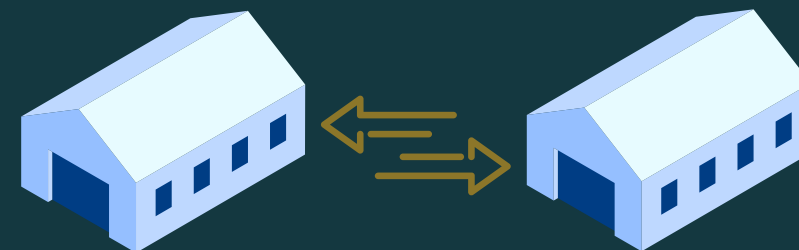
through minimal infrastructure needs and drive capability.

# Enabling **Urban & Regional** Air Logistics Between Industrial Zones



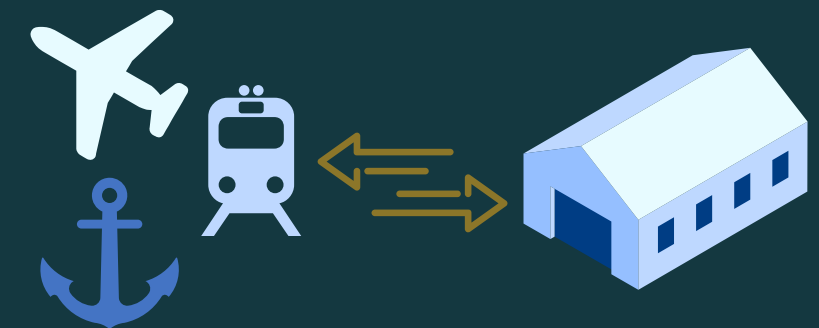
## DIRECT: Point to Point

Transports of production, warehouses & stores



## HUB: First & Last Leg

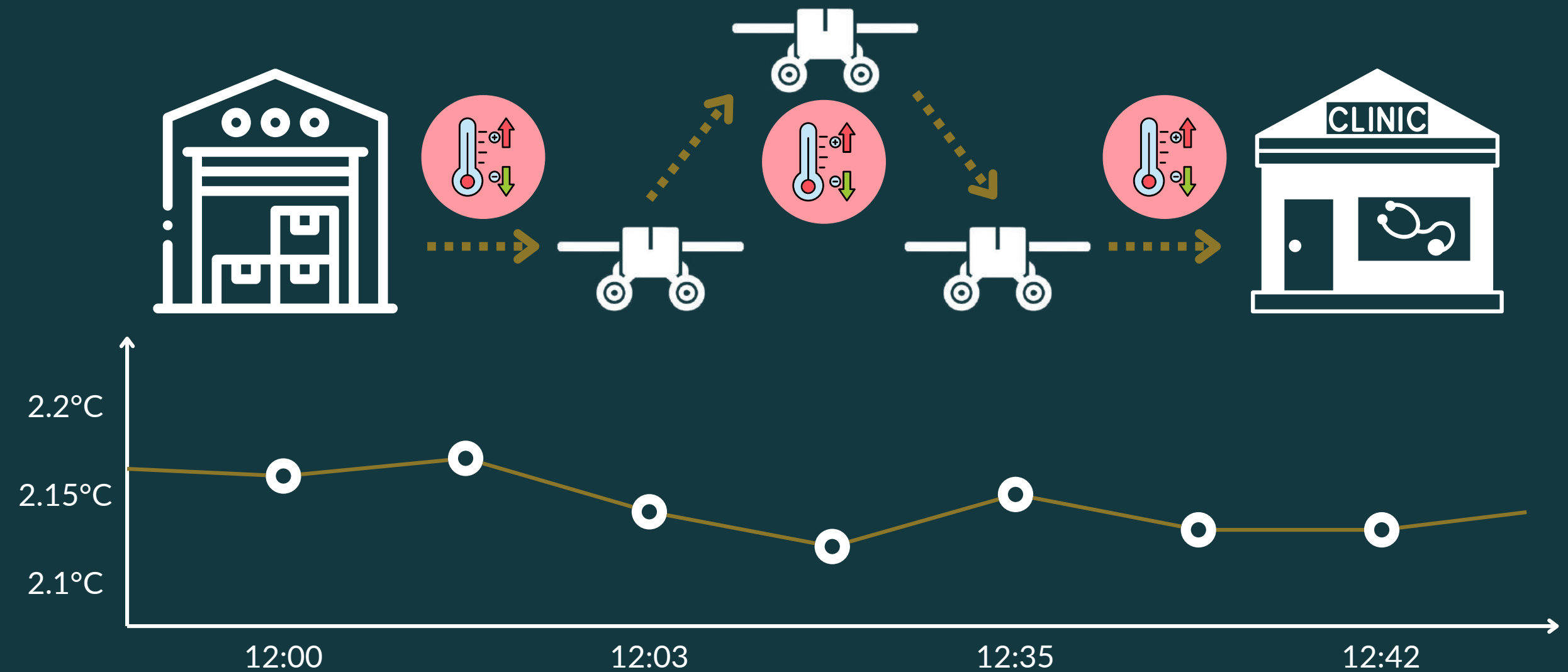
Transport between airports, ports, train stations & production, warehouses, stores





Example Use Case:

# De-Risking Cold Chains with End-to-End Precision and Speed



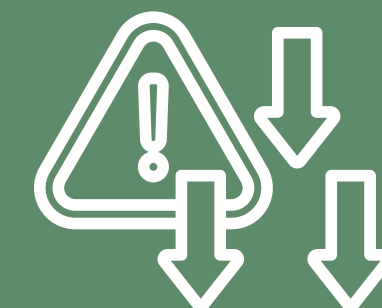
## Faster Supply Chain Management

Uninterrupted rapid transport of Bulk temperature-sensitive cargo to urban, rural and isolated Areas.



## End-to-End Traceability

Ensuring product integrity through real-time temperature & quality monitoring throughout the entire supply chain trip.



## Risk Reduction

Eliminating errors and delays from manual handling and multi-modal transfers.

# Seamless Integration, Full Automation and Cost Efficiency

- ✓ **Zero** Turnaround time  
Automated Loading Process
- ✓ **Zero** Charging / Refueling Time  
Rapid Battery Swap
- ✓ **Zero** Data Interruptions  
Cargo Data Traceable without interruptions
- ✓ **Zero** Emissions  
Fully Electric Operations
- ✓ **One-Click** Delivery Order  
Simple Logistics Software Integration
- ✓ **100%** Punctuality  
No unnecessary processes or bottlenecks





# Join Us in Shaping Tomorrow's Logistics

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Contact us today



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