

## 4 Test Locations



## Contact



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DTAC Website

### Harald Sieke

Tel.: 069 668228-355  
harald.sieke@iml.fraunhofer.de

### Lars Mehrrens

Tel.: 069 668118-353  
lars.mehrrens@iml.fraunhofer.de

## DTAC Development

- ▶ Data Hub & Digital Avatar
- ▶ Smart-Pouch & IoT

### NE:ONE® Ecosystem

- ▶ Predictive Analytics

### Predictive Analytics

- ▶ Digital Site Logistics - completed

- ▶ Autonomous Outdoor Freight Transport
- ▶ Autonomous Air Cargo Warehouse Handling

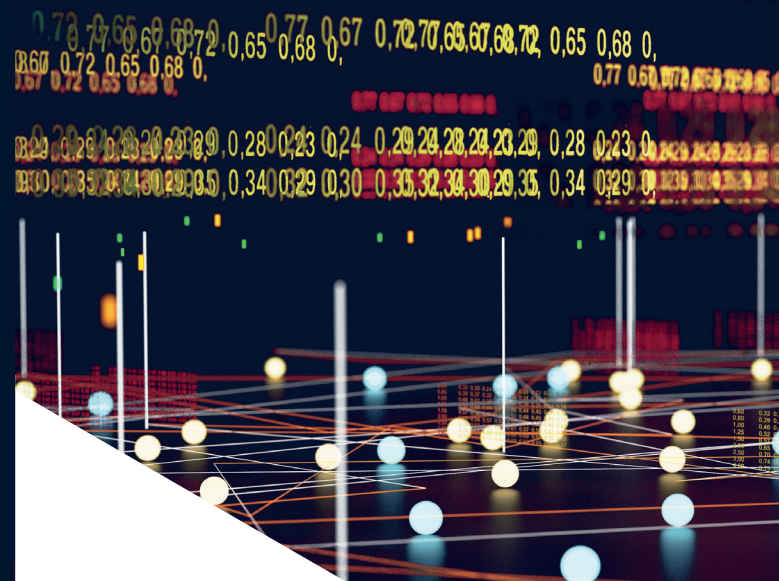
### Autonomous Air Cargo

## Consortium

### Research Institutions:



### Industry Partners:



**DIGITAL  
TESTBED**  
AIR CARGO

**DIGITAL TESTBED  
AIR CARGO**



www.digitales-testfeld-air-cargo.de

# New Innovations in Air Cargo Handling 2024–2026: A Glimpse into the Future

Building upon the success of previous years, the next phase of the Digital Testbed Air Cargo (DTAC) project introduces three groundbreaking subprojects that will drive the future of air cargo logistics:

## NE:ONE® Ecosystem

With the growing importance of global standards like ONE Record, the NE:ONE® Ecosystem will lead the way by introducing a fully integrated, end-to-end ONE Record solution. This will set a new industry benchmark, particularly in eCommerce logistics. Key innovations include the NE:ONE® Server, NE:ONE® Tag application, and a ONE Record Label, all of which streamline data sharing across authorities and partners. These enhancements aim to promote paperless operations and boost the adoption of smart, digital processes—paving the way for seamless cargo integration across the supply chain.

Find NE:ONE® in the Gitlab of the Open Logistics Foundation



## Predictive Analytics

This subproject leverages cutting-edge Artificial Intelligence (AI) and Predictive Analytics to enhance operational efficiency. It introduces AI-driven compliance checks, especially tailored for eCommerce, and utilizes Explainable AI models for transparency in decision-making. By implementing AI-powered forecasting, the system can accurately predict cargo volumes and optimize resource management. The Predictive Analytics subproject is designed to ensure resilience and efficiency, preparing the air cargo industry to meet future demands with enhanced accuracy and reliability.

## Autonomous Air Cargo

Aiming for full automation, Autonomous Air Cargo focuses on transforming every stage of air cargo handling—from truck delivery to aircraft loading. Through the use of autonomous mobile robotics and advanced control systems, this subproject envisions a future where fleets of robots manage daily cargo tasks, minimizing human interaction while increasing efficiency. This shift will ensure 24/7 operations, reduce human error, and significantly boost handling capacity—driving the industry toward a fully automated and resilient air cargo system.

