

# AIRNXT



## Aviation's Next Flight Plan: Simplicity Wins

Exploring how streamlined data processes can transform predictive maintenance in aviation, enhancing reliability and accountability.

# **The Future of Predictive Maintenance in Aviation**



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Predictive maintenance can change the aviation industry by saving billions and cutting delays using data insights. But its success depends on trust in the data systems behind it.





## Trust Erosion Due to Data Quality

The integrity of predictive maintenance systems is compromised by existing data management practices, leading to skepticism among users and stakeholders.



## "You Can Only Take Action if You Trust the Data"

Predictive maintenance needs reliable data to work well. Without it, we miss chances to improve efficiency and safety.



## Silos Create Barriers to Trust

Different teams and groups, like CAMO and regulators, often work separately. This makes sharing important information harder, which can lower trust and teamwork in predictive maintenance.



## Understanding the Trust Issue



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# The Impact of Missing Records in Aviation



# DOCUMENTATION MATTERS

A missing record led to significant operational disruptions and financial losses.



## GROUNDING AIRCRAFT

An aircraft was grounded because of a missing record, even though it was in good shape. This shows the risks that come with documentation mistakes.



## LOSS OF FLIGHT

The absence of proper documentation caused the loss of a scheduled flight, reflecting the critical nature of accurate record-keeping in aviation operations.



## FINANCIAL LOSSES

The incident resulted in substantial financial costs, illustrating the economic impact of documentation issues in the aviation industry.



## OPERATIONAL EFFICIENCY

Trust in aviation records is crucial; improving accuracy in documentation can enhance operational efficiency and lower costs.



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**GROUNDED AIRCRAFT**

The inability to fly an aircraft due to a missing record, such as a missing maintenance record, can result in significant operational disruptions and financial losses.



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### Reliance on Paper Logbooks

Many aviation operations still use paper logbooks, even with new technology. This can slow things down and makes it hard to access important data in real time, which is needed for good maintenance planning.



### Fragmented Legacy ERPs

Many aviation companies still use old ERP systems, which causes data to be scattered across departments. This makes it hard to share information and work together, especially when it comes to predicting maintenance needs.



### Siloed Operations

When CAMO, line maintenance, and MRO work separately, it makes communication harder. This disconnection leads to missed chances for maintenance and raises the risk of aircraft on ground (AOG) issues.



# Challenges in Aviation Data Management

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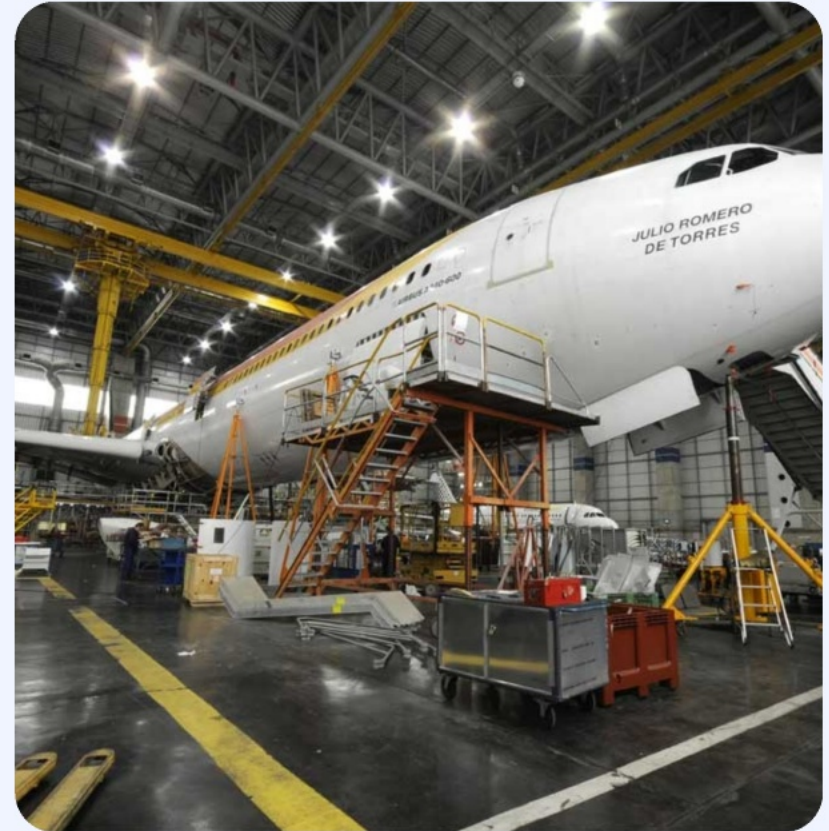
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# Introducing the Living Digital Twin: A Game Changer in Aviation

The Living Digital Twin offers real-time records for every aircraft, keeping everyone from pilots to maintenance teams informed with accurate, up-to-date information. This solution breaks down data barriers in aviation, promoting better teamwork and trust in maintenance records.



# How the Living Digital Twin Works

Transforming data into actionable insights for aviation stakeholders.

## Instant updates

When a defect is logged by a pilot, all relevant teams including CAMO, MCC, and line engineers receive real-time notifications, ensuring everyone is informed immediately.

## Proactive resource alignment

If a defect is deferred under MEL, the system automatically aligns manpower, parts, and slots before the expiry, minimizing downtime.

## Regulatory compliance

Regulators and lessors gain instant access to the same real-time data, eliminating reliance on outdated binders and enhancing traceability.

## Continuous data quality

With the Crowdsourced Validator, licensed engineers verify data quality at scale, maintaining high standards for predictive maintenance.

## Comprehensive visibility

The Living Digital Twin links every event, part, and log, creating a Unified Aircraft Graph that enhances decision-making and operational efficiency.

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### e-Logbook

Our electronic logbook is being tested and offers a digital tool for tracking aircraft activities and issues. It allows for real-time updates and offline collaboration on mobile devices, giving everyone quick access to important information.



### Unified Aircraft Graph

The Unified Aircraft Graph links all events, parts, and logs for an aircraft. This helps maintenance teams see everything clearly and communicate better.



### Crowdsourced Validator

The Crowdsourced Validator works with licensed engineers to check data quality, making sure the information is accurate and reliable.



### Digital Airworthiness Graph

The Digital Airworthiness Graph provides full traceability of aircraft components across years, facilitating compliance with regulatory standards and improving operational efficiency.



# Key Features of AirNxt's Solution

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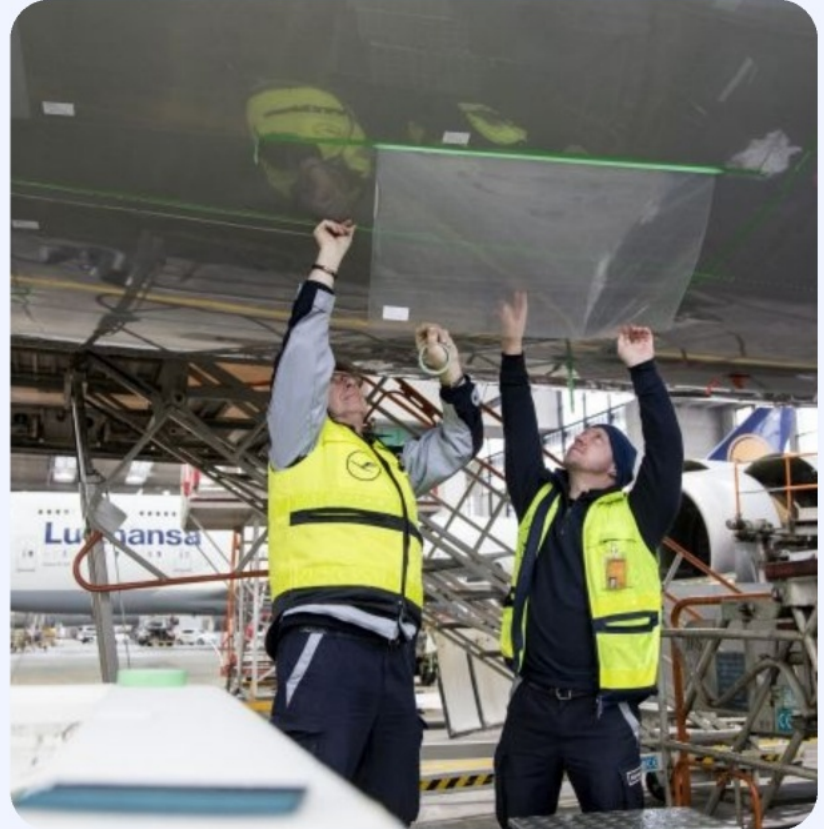
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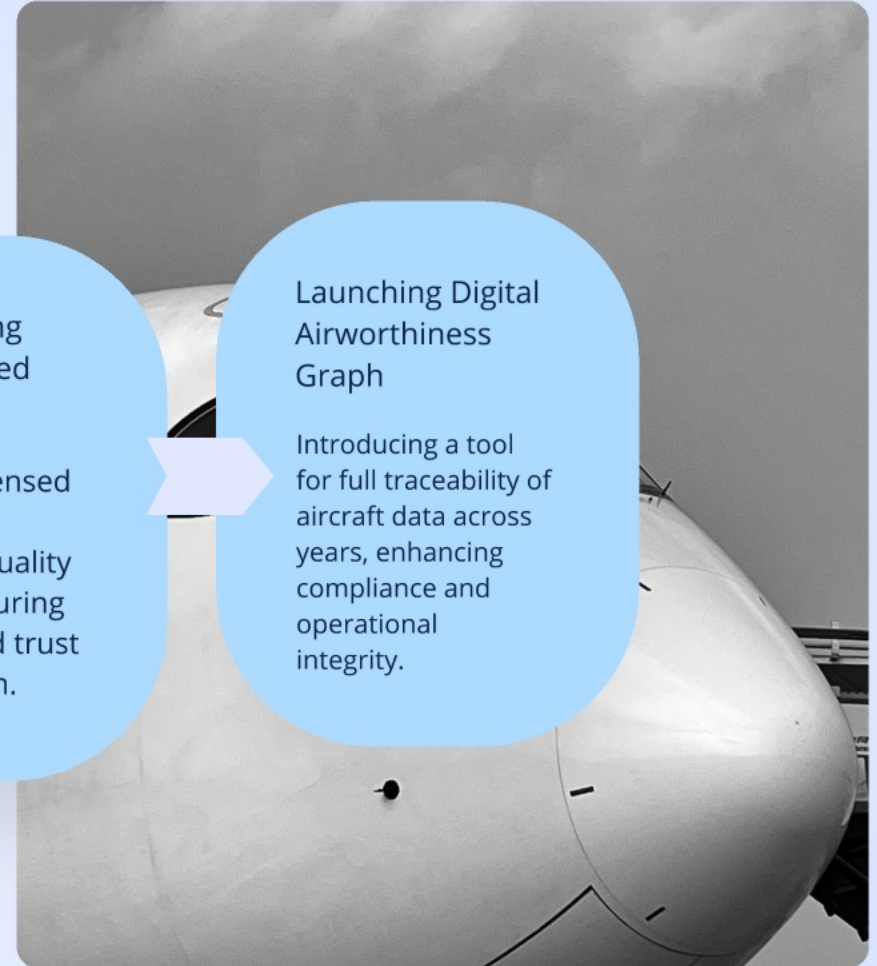
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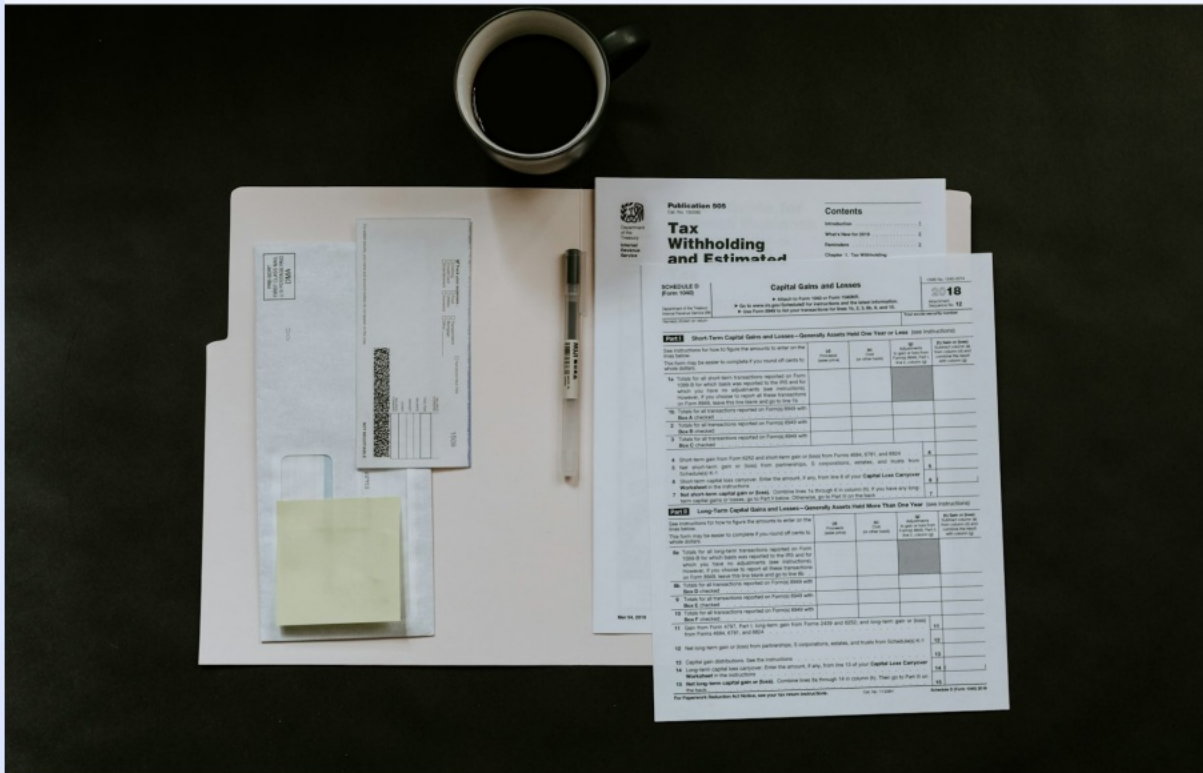
## Launching Digital Airworthiness Graph

Introducing a tool for full traceability of aircraft data across years, enhancing compliance and operational integrity.



# Path 1: AI on Broken Records

Continuing with AI on broken records leads to unreliable predictions and wasted resources. Engineers remain burdened by outdated systems and paperwork, resulting in inefficiencies and lost opportunities for true predictive maintenance.



# Path 2: Trusted Digital Core

Building a trusted digital core transforms predictive maintenance into an actionable practice. A Living Digital Twin streamlines data sharing among all stakeholders, enhances trust, and ensures compliance, ultimately leading to significant cost savings and improved operational efficiency.

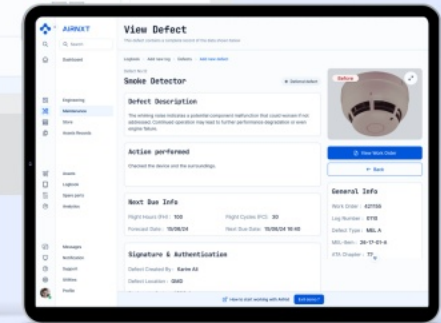
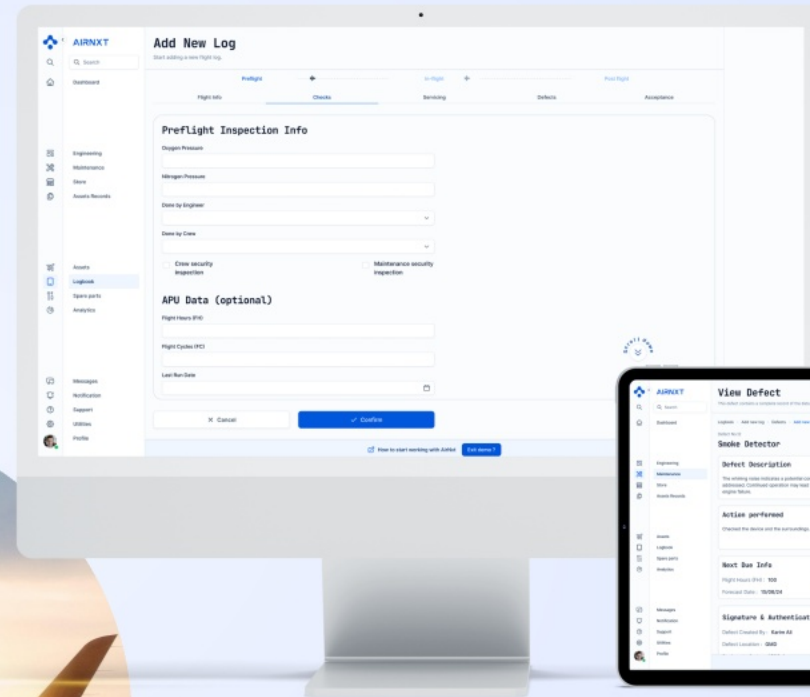
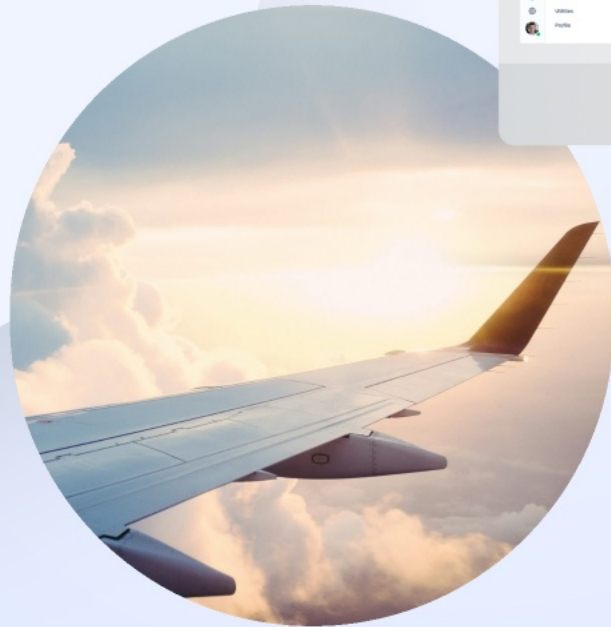


# Simplicity is the Key to Transforming Aviation

At AirNxt, we recognize that true innovation in predictive maintenance hinges on simplicity. By creating a streamlined and trustworthy digital foundation, we can ensure that data is accessible and actionable for all stakeholders, ultimately enhancing operational efficiency and safety.



# Q&A Session



Sign up for the waiting list at [www.airnxt.ai](http://www.airnxt.ai)



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