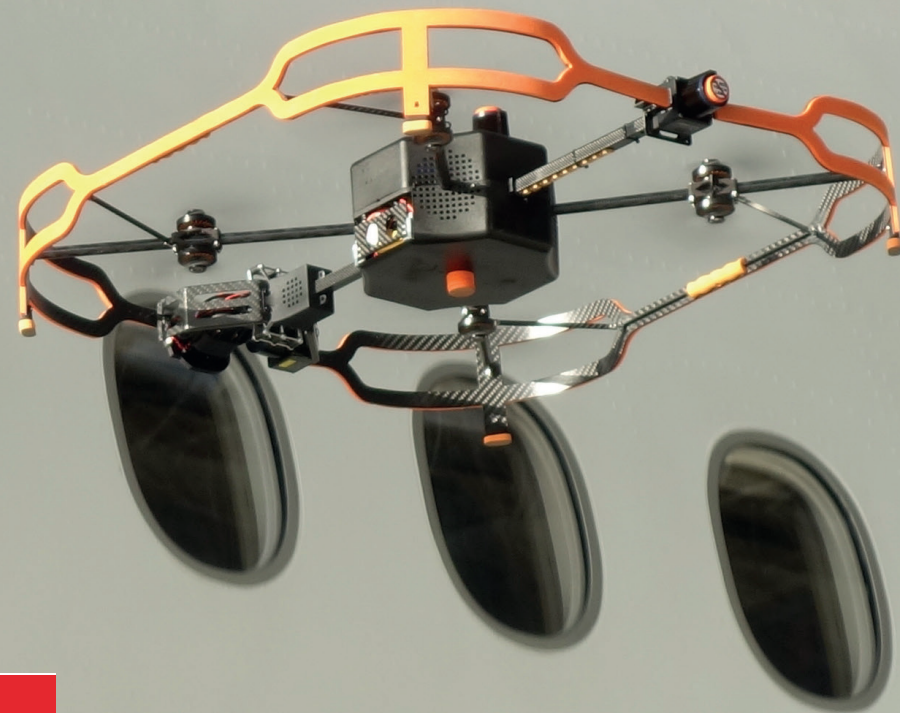




# DONECLE

Automated Aircraft Inspections




**Inspect your aircraft faster,  
safely and reliably**









Visual inspections methods have not evolved since the beginning of aviation. Whether scheduled or unscheduled, they are time-consuming, access to upper areas is challenging and repeatability as well as traceability of inspections are limited.

Donecle has designed a patented solution to perform automatic aircraft inspections. Our smart system combines 100% automated drones with image analysis algorithms to detect defects, lightning strikes, evaluate paint wear and check placards.

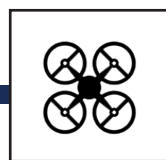
We increase aircraft availability by reducing the length of inspections and provide data analysis solutions to optimise maintenance operations and costs.

We offer a complete solution from image collection to analysis and traceability as well as training and maintenance.

Save time, increase safety and traceability.



**Onboarding**



**Drone**



**Image Analysis  
Software**



**Cloud**



**Support**

# How it works

1/ Inspect

2/ Analyse

3/ Trace

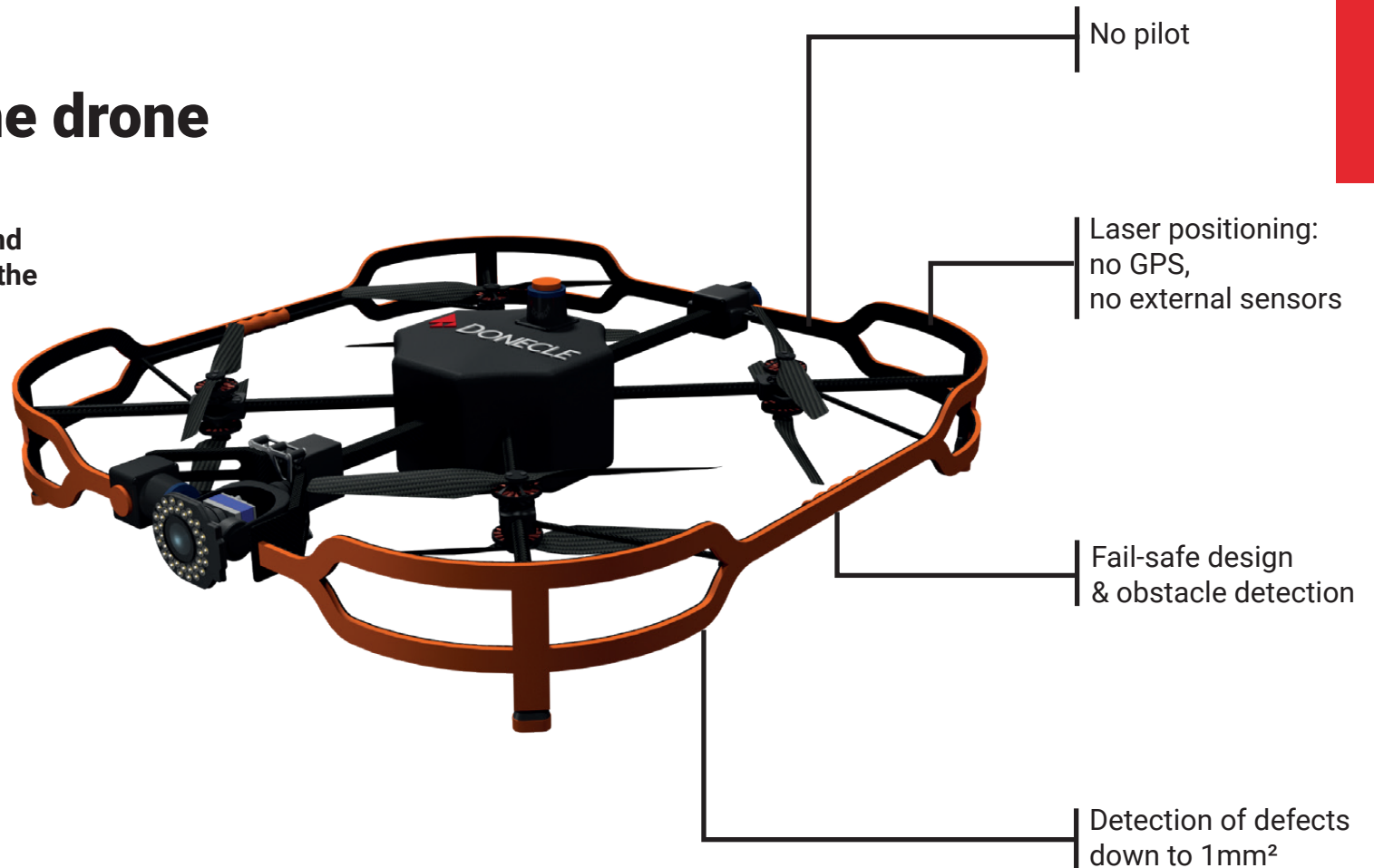
## 1/ Inspect with the drone

Donecle UAV automatically scans and collects high resolution images of the complete aircraft structure.

▶ **Drone flight**  
directly launched from a tablet

▶ **Full coverage**  
of the aircraft external surface

▶ **Less than 1 hour**  
to inspect a narrowbody



## 2/ Analyse with software

Turn data into actionable insights

Pictures are automatically sent and processed in our image analysis software.

- ▶ **Visualization**  
of images in dedicated inspection software
- ▶ **Damage detection**  
based on machine learning
- ▶ **Defects accurately positioned**  
in relation to frames & stringers
- ▶ **Automated reports**  
generated in PDF format

**1 single drone flight,  
multiple job cards**



General Visual Inspections



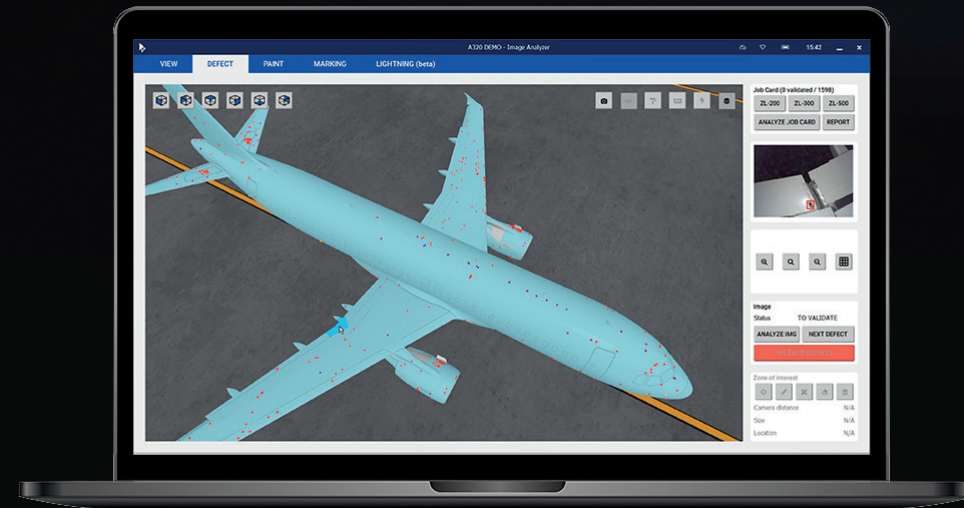
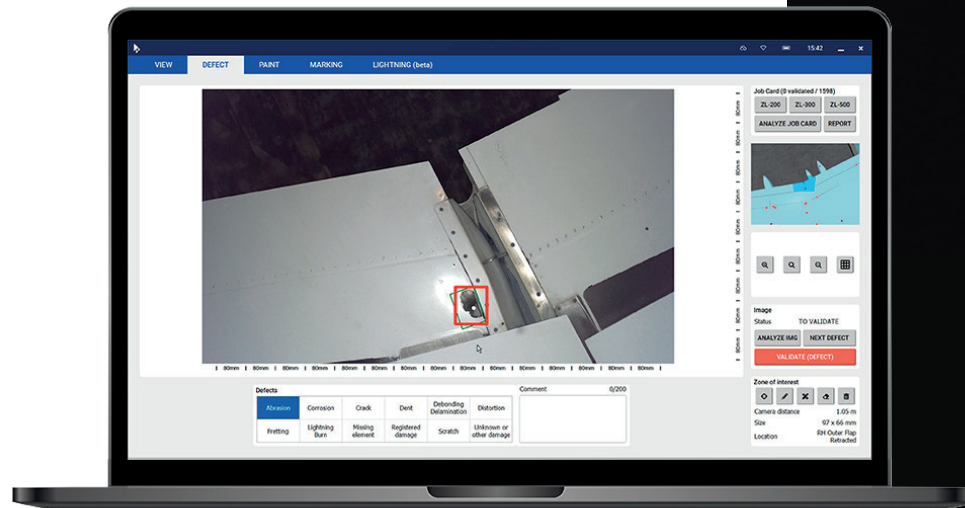
Lightning Strikes



Markings

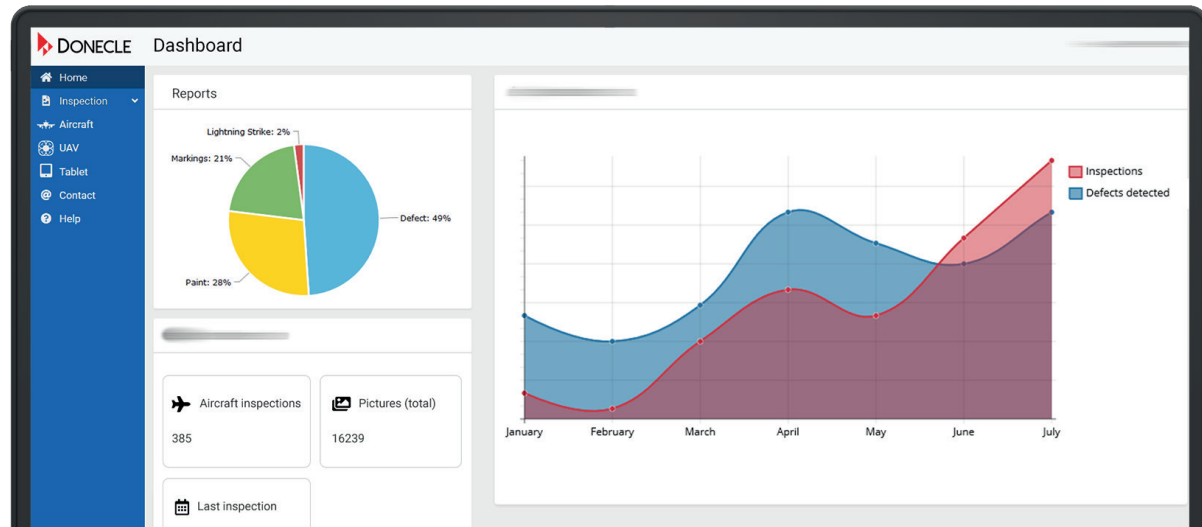


Paint Wear



## 3/ Keep track with cloud

Build digital history



Inspection data and reports are systematically saved on Donecle's secure cloud platform:

### Remote access

to inspection data and reports

### Visualization

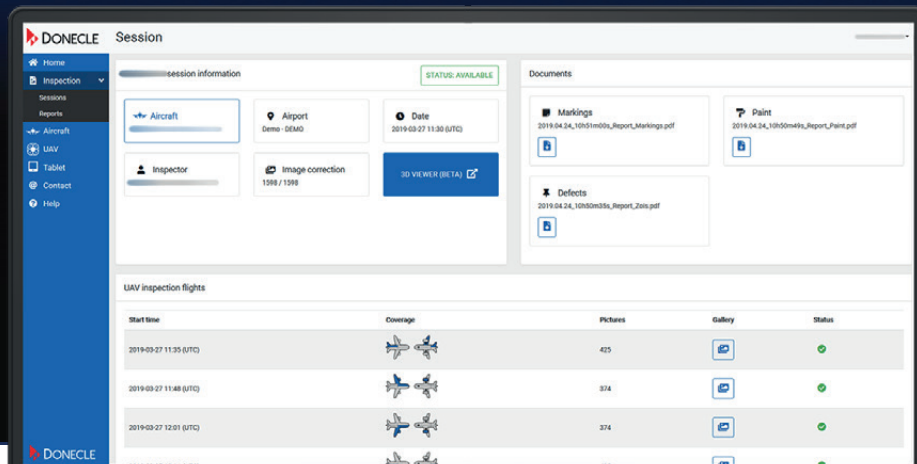
of pictures in on-line 3D viewer

### Track evolutions

and monitor trends

### Fleet monitoring

unlocking the potential for data mining and predictive maintenance





# Support

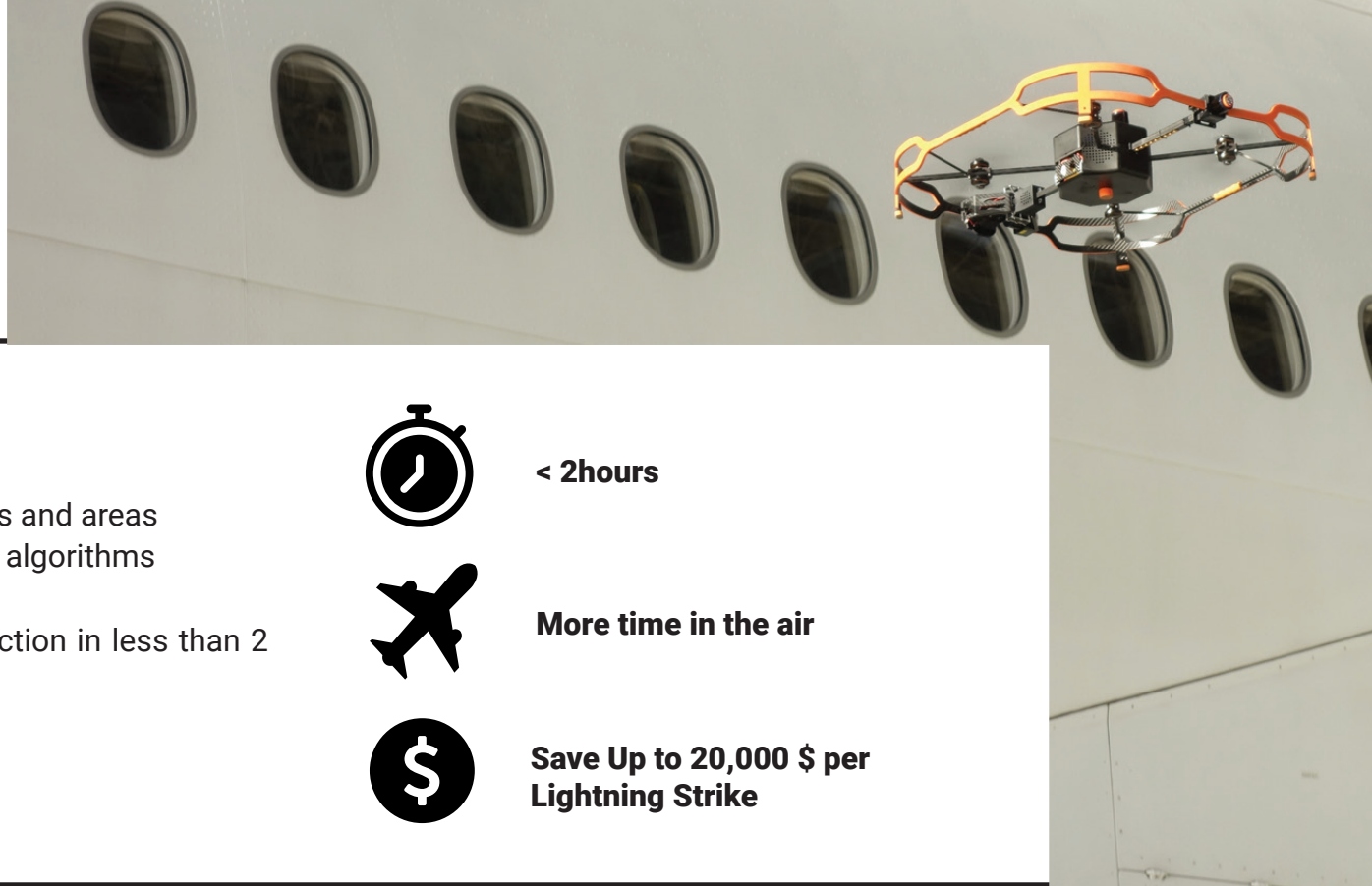
From training and on-boarding to every-day support, we are here to offer the best level of service to our customer.

- ▶ **Training of inspectors**  
and on-boarding
- ▶ **Technical support**  
and remote assistance
- ▶ **Regular updates of software**  
including new customers' requests
- ▶ **Drone maintenance**  
and upgrade retrofit
- ▶ **One-click access**  
to Donecle's technical documentation and support



# Key applications

We cover several applications for line and base maintenance.



## Lightning Strike

- Detection of lightning strikes and areas free of impacts thanks to our algorithms
- Complete automated inspection in less than 2 hours



**< 2hours**



**More time in the air**



**Save Up to 20,000 \$ per Lightning Strike**



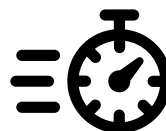
## Paint and Gloss Evaluation

Instant & full paint evaluation allowing:

- Tracking of excessive loss of skin wear
- Brand image improvement

Objective data and reports:

- Helps paint planning optimization
- Supports warranty claims against paint shops
- Unlock paint providers benchmark



**Instantaneous & objective full AC analysis**



**Improved brand image & safety**



**Up to \$40.000 fuel savings per year**

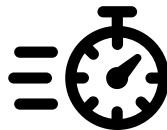




**Reduce AOG risk**



**Instantaneous**



**Eliminate indirect costs  
and inspection burden**



## Placard Checks

Donecle automatically inspects your aircraft and generates a report providing status of all markings and placards in less than 1 hour.

- Ensure compliance with Aviation Authorities ramp audit
- Streamlined placards inspections & reordering



**No defect positioning mistake**



**Improved safety**



**Digital aircraft history and paperless process**



**Save time and costs**



## GVI

Detailed and objective inspection report:

- Faster inspection process thanks to automated drone
- Full HD image delivering high level of details
- Precise positioning of damages
- Full traceability of past inspections (dent & buckle mapping)
- Reduce risk of falls and incidents



# Benefits

Optimize your maintenance process, reduce workload, increase safety and improve traceability.

## ▶ Speed

- Automated image acquisition with drone
- Complete inspection in less than 1 hour

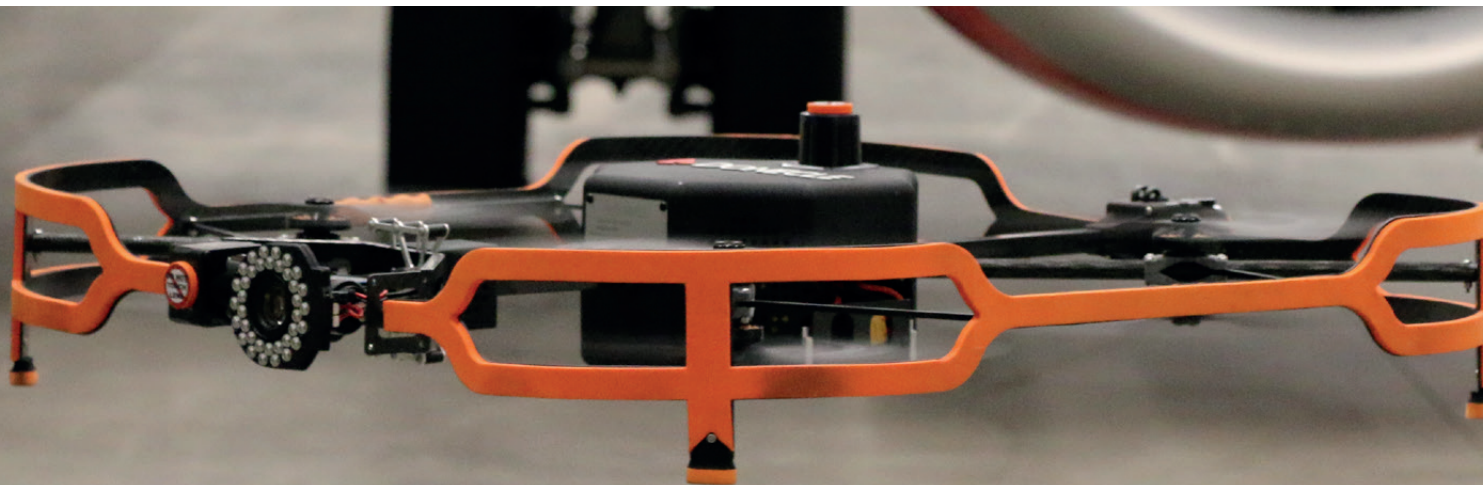
## ▶ Efficiency

- Automated image analysis and damage reports
- 1 inspection, multiple use cases
- Safer inspections

## ▶ Traceability

- Objective, consistent and repeatable inspections
- Digital aircraft history

**100%** automated flight  
safe  
paperless  
repeatable





## Who we are

Donecle was founded in 2015 by former aerospace professionals with experience in designing aircraft structures, drones and next-generation autopilots.

We have strong expertise in aircraft maintenance processes, drone robotics, automation and computer vision.

We are guided by 3 values which drive us to deliver the best to our customers every day: innovation, excellence and team spirit.

We are committed to deliver high-standard services to customers through constant improvement and dedicated customer focus team. Our clients include airlines, MROs, aircraft OEMs and military operators around the World.



**20+ people**



**1000+  
drone flights**

## They trust us :



**10 awards**



# DONECLE

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