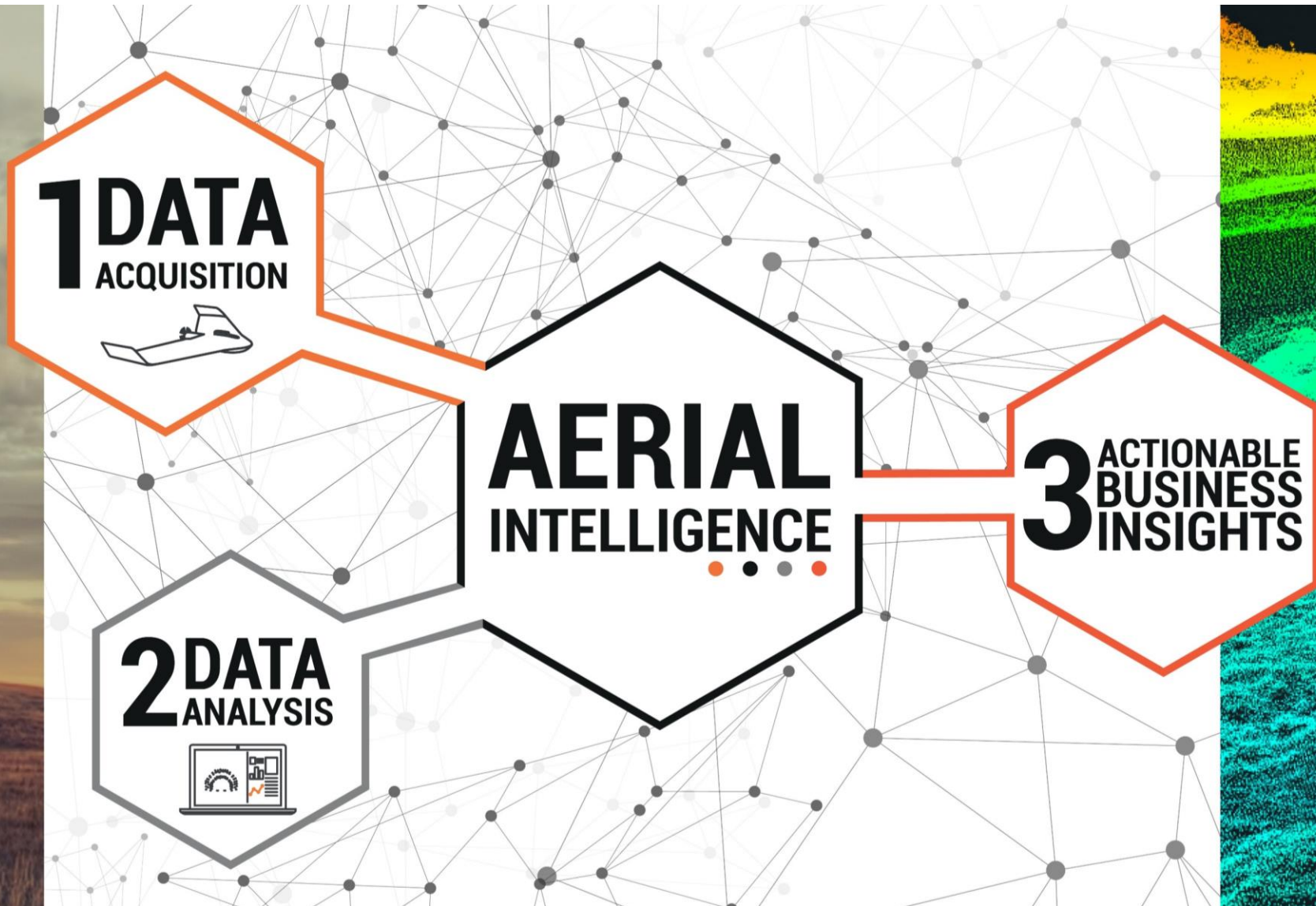




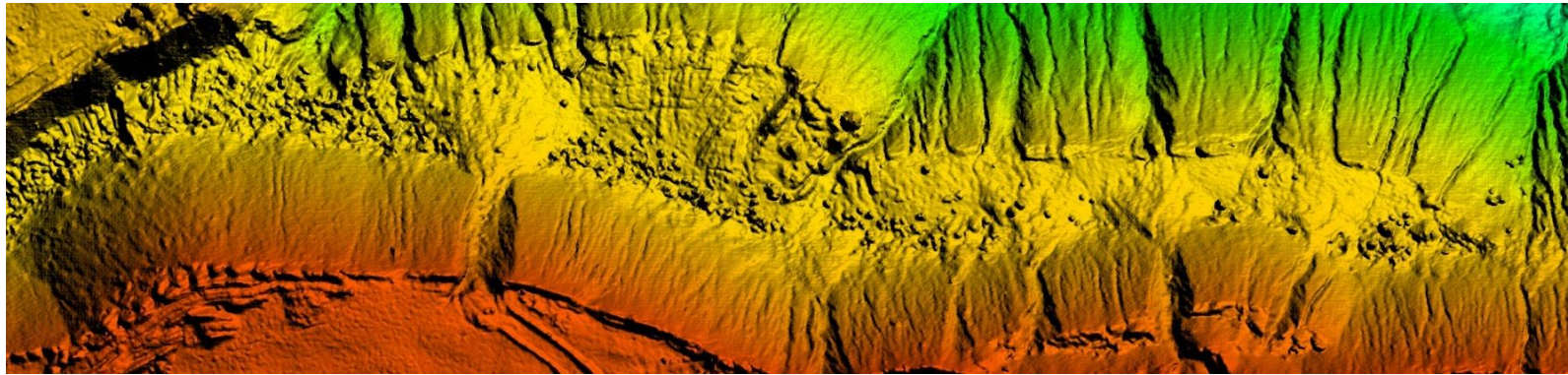


# Leveraging IoT and Drones to Produce Aerial Intelligence

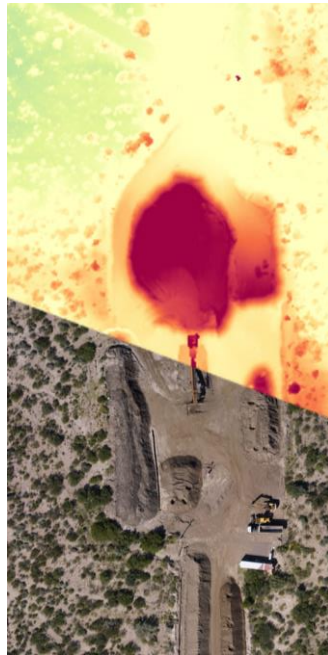
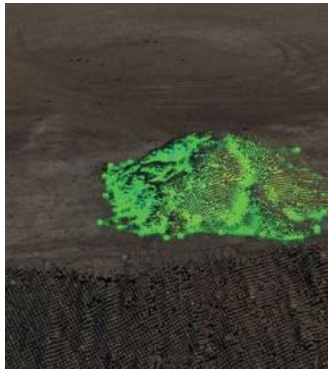
Geosmart Asia – Locate – 2018 – Adelaide, Australia













# DELAIR UX11

The Smartest Flying Camera Ever  
Made for Mapping





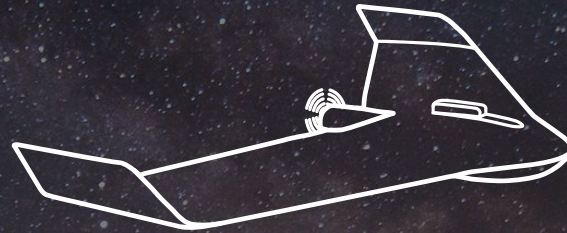
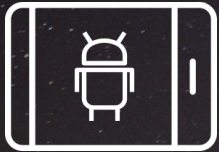
# Accurate aerial intelligence

A photogrammetric mapping drone solution capable of onboard data processing, PPK-as-you-go, and both wireless and cellular communications to ensure survey-grade results anywhere.



# A purpose-built easy-to-use work flow

Intuitive, familiar, and easy-to-use software with in-the-field quality checks



## Before the flight

Delair Flight Deck runs on an Android tablet

Quick and flexible mission planning and pre-flight checks

## During the flight

Always in control with live flight monitoring

Feedback from camera while flying - real-time histogram plot and photo review\*

Verify data before leaving field

## After the flight

PPK processing in Delair After Flight

Export photos to any photogrammetry software



# Onboard processing and quality checks



## FLIGHT

Onboard system  
computes real-time  
indicators

## LANDING

Flight Report



Tablet

## DELAIR AFTER FLIGHT

PostFlight Report

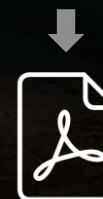


Processing PC

## ORTHOMOSAIC TOOL

Pix4D / Trimble TBC

PostProcessing Report



PDF



# Data quality is king

Quality reporting in-flight and in the field – no more guessing if your data is photogrammetry-worthy





# Delair After Flight

## Picture Processing

1. Plot Photos & overlap
2. Filter out pictures
3. View pictures
4. Generate geotagged photos

## PPK Processing

1. Fully-integrated
2. Choose your GNSS data
3. License verification



# The drone is the camera

## Embedded aerial intelligence

- ✓ Real-time camera to GCS link for on-the-fly quality control
- ✓ Control camera settings and quality from GCS
- ✓ Fully-integrated industrial camera
- ✓ Designed by Delair
- ✓ Up to 1 cm GSD imagery







# Best-in-class GSD

Cover 2 km<sup>2</sup> (500 acres) with 1.7 cm GSD at 120 m (394 ft) flight height





# Ready for the future

It's not just today's drone, it's tomorrow's too

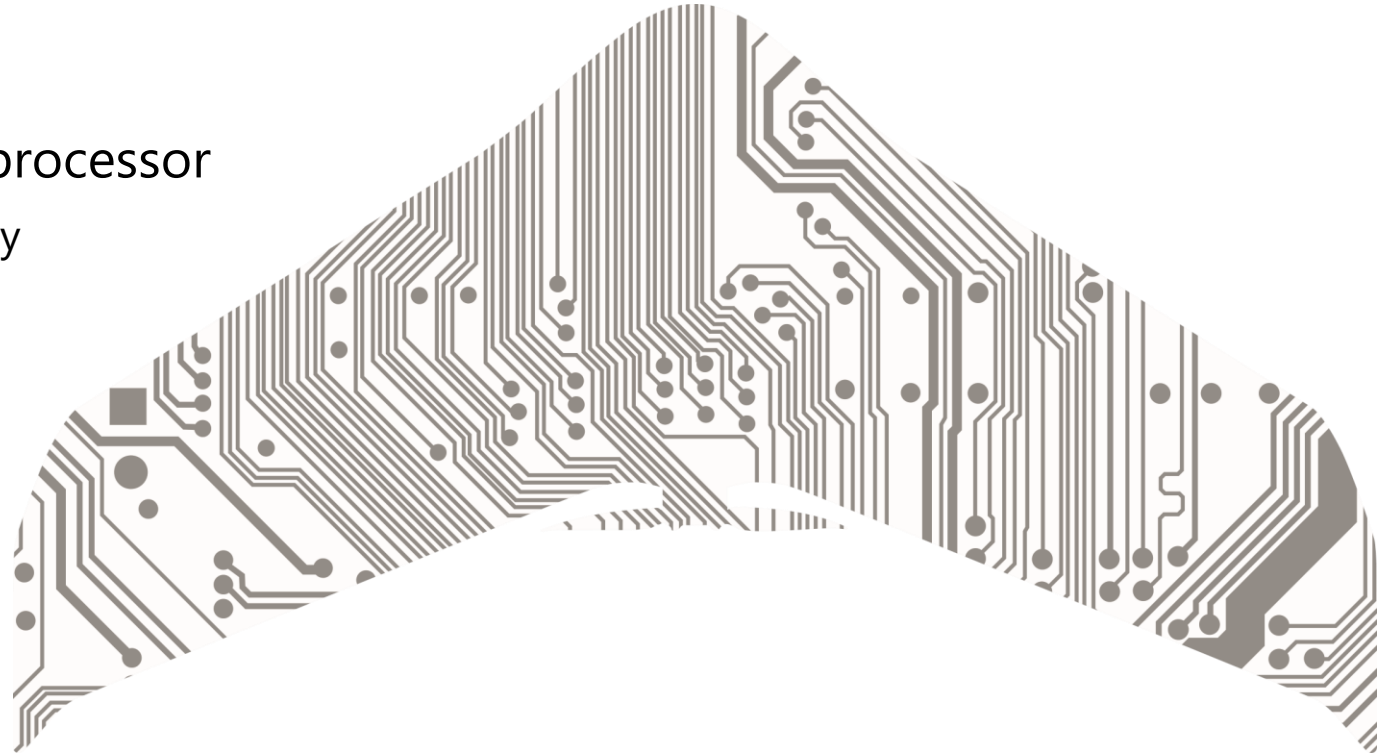


# Future-ready electronics

Embedded systems that are open for development

Embedded system with onboard processor

- ✓ Advanced quality checks on the fly
- ✓ Deep learning
- ✓ More to come!



# Industry-leading communications

Dual communication systems (2.4 GHz and 3G/4G) enable you to fly anywhere

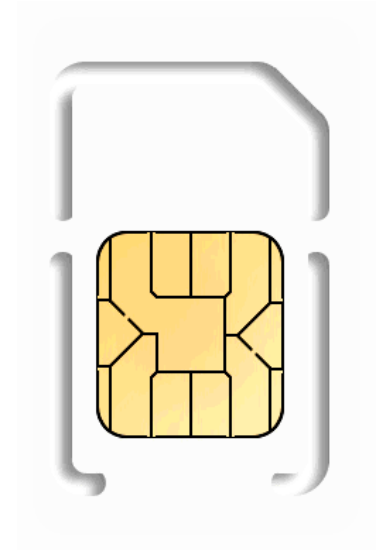
Fly anywhere with Delair Link  
(2.4 GHz)

- Up to 5 km range (FCC)
- Up to 3 km range (CE)



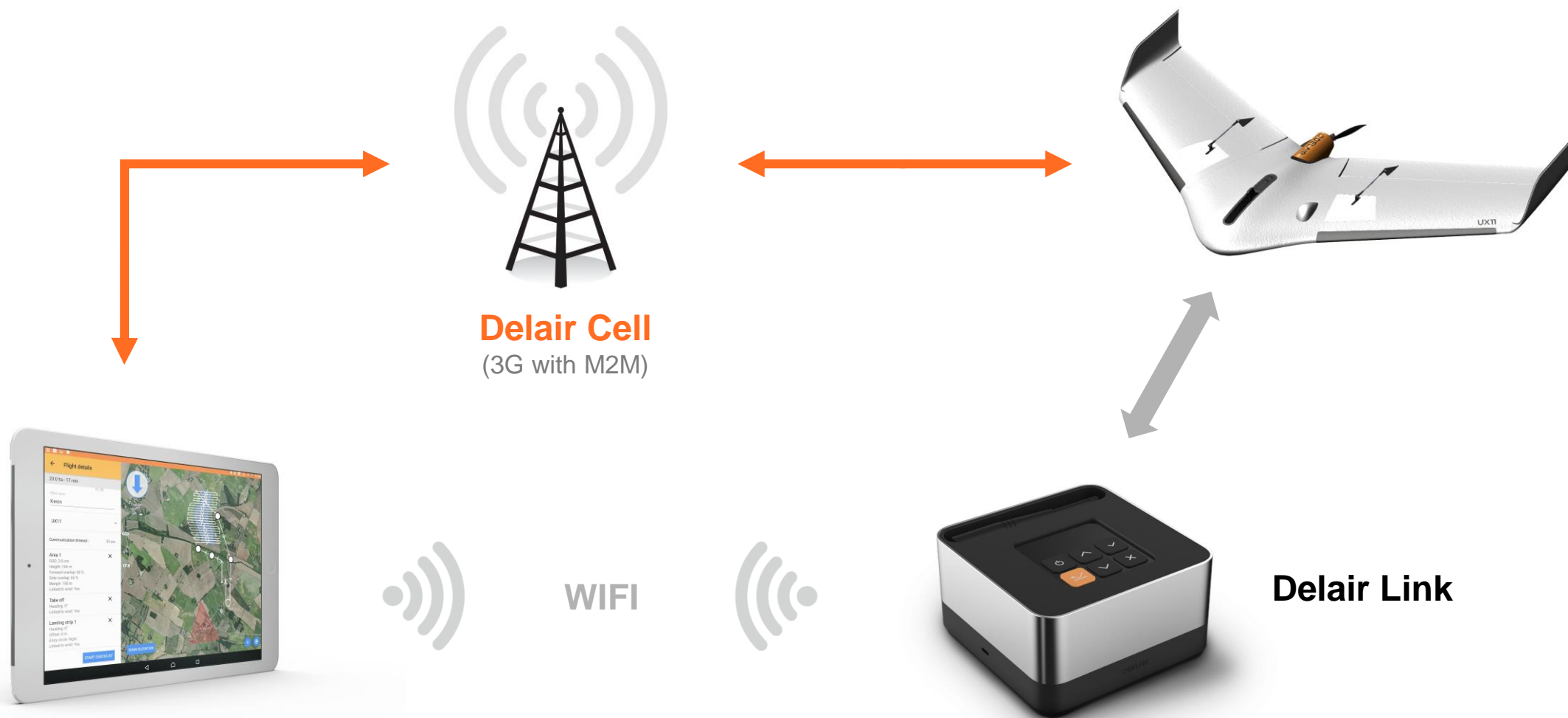
Cellular offers distinct advantages

1. BVLOS flights
2. Less prone to interference
3. Less prone to obstructions
4. Private and secure machine-to-machine network enables future development opportunities





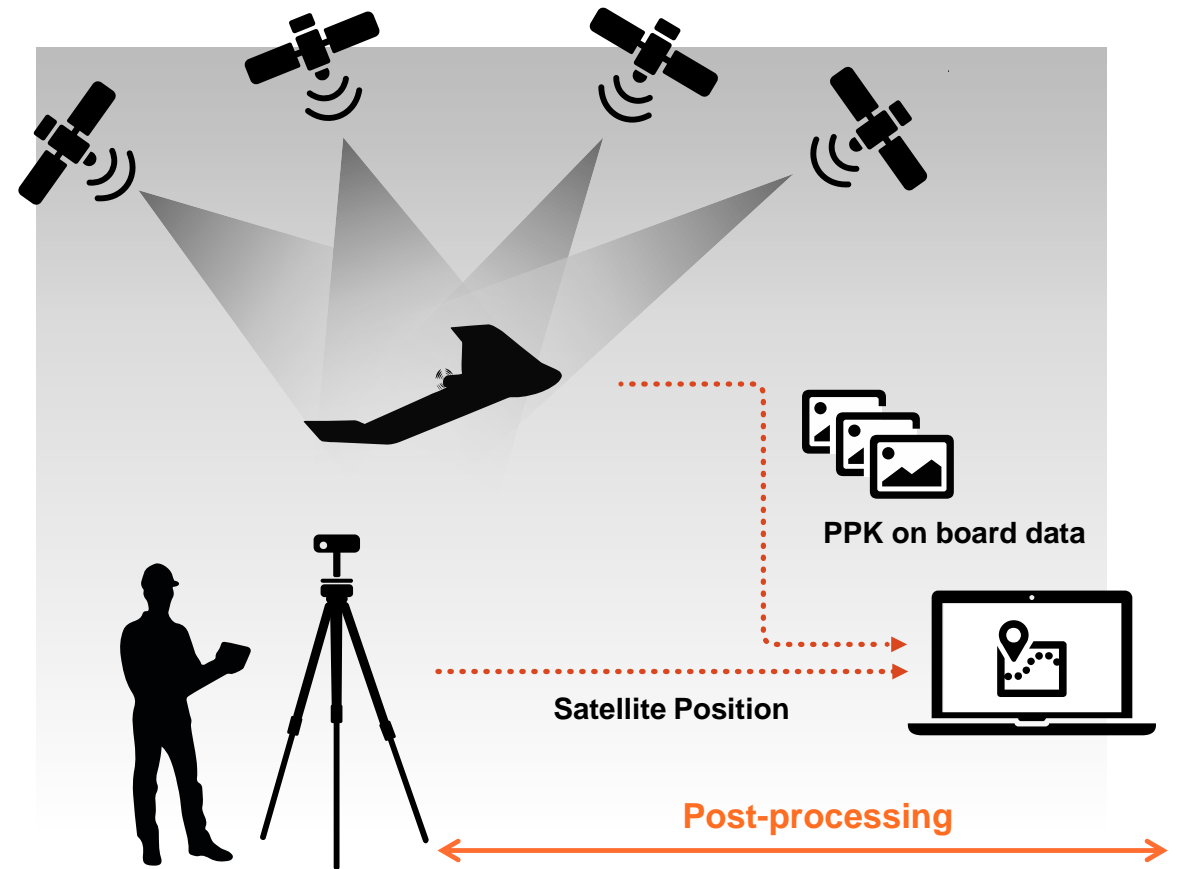
# Edge computing and IoT



# PPK-as-you-go

A scalable alternative to achieve high-accuracy results anytime

- Unlimited PPK
- Time-limited PPK
- Minimal or no ground control with PPK for survey-grade results
- Baseline processing in Delair post-flight software
- PPK quality reporting





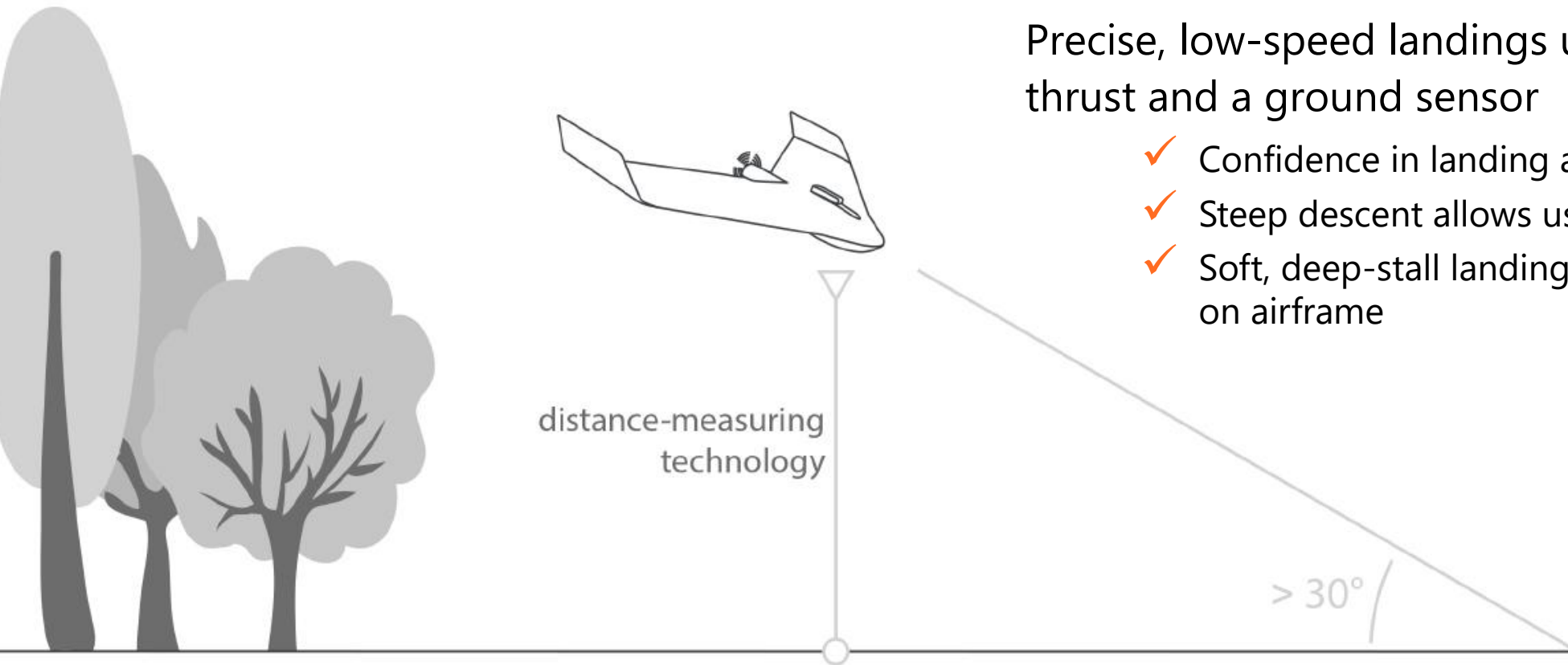
# BTOL - Launch and land like a bird

No need to sacrifice coverage for convenience, takeoff and land in mines, corridors, and canyons

Steep climb upon takeoff

Precise, low-speed landings using reversed thrust and a ground sensor

- ✓ Confidence in landing accuracy
- ✓ Steep descent allows use in confined areas
- ✓ Soft, deep-stall landing reduces wear and tear on airframe





# Geospatial applications

The industry without borders

Construction

Agriculture

Oil and Gas

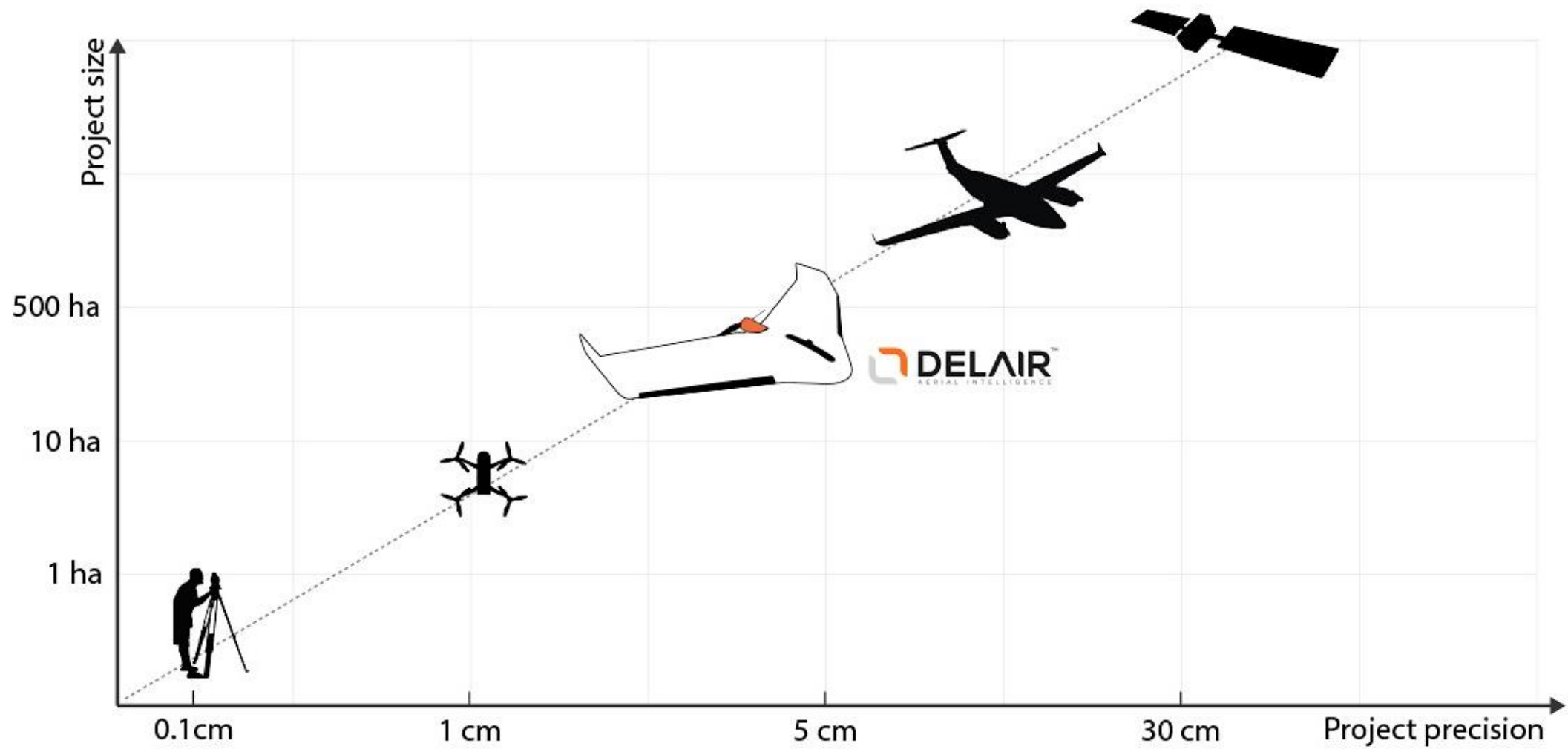
Mining

Infrastructure

Transportation









# Core users

Where fixed-wing mapping drones have proven their value



Land Survey

Construction

GIS

Environmental

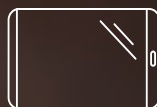
# Quality-centric and futureproof

Fully-integrated  
**smart camera**



BVLOS-ready  
**dual communications** system

**Easy workflow**  
from field to office



**PPK as you go**

**Data quality reporting**  
throughout



**BTOL**  
Birdlike takeoff and landing





## **Chase Fly**

Geospatial Product Manager

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