



# Land & Property

18/10/2023

[www.ideaforgetech.com](http://www.ideaforgetech.com)



# Pioneer in the UAV market in India



Founded by a team of  
Dynamic **IIT - Bombay**  
graduates in 2007

Infosys<sup>®</sup> Qualcomm  
Celesta FLORINTREE

Backed by **leading**  
**organizations** across  
the globe

350,000+  
Successful missions

an ideaForge drone  
Takes Off  
**every 5 min**



50%+ market share in  
Indian sUAS market

Manufacturing capacity  
of **1000s** of systems per  
year

500+ employees  
200+ engineers

Vertically  
integrated with  
28+ IPs

**Listed on Stock  
Exchanges in  
India (BSE/NSE)**

# Challenges with village mapping

## Barriers to create *high resolution maps* at *minimal cost*

- Need for lower total cost of mapping
- Need for larger area coverage with multiple polygons in one flight
- Need for ease of transportation and damage-proof packaging
- Fear of flying the drones & crashing
- Need for predictable performance across lifetime
- Need for quick service & support across India
- Need to fly in challenging terrain
- Need for easier data logistics
- Need to reduce errors in processing

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**Need for more performance**

**Need for higher reliability**

**Need for autonomy**

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# Why ideaForge?

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## P E R F O R M A N C E

ideaForge drones deliver the **Best-in-Class** Performance, providing the highest **endurance** in their weight class globally



## R E L I A B I L I T Y

ideaForge drones are tested in **extreme weather conditions** and high altitudes across India from deserts to glaciers & offer the highest technical life of **2000+ landings**, highest in their class



## A U T O N O M Y

Built grounds up with **'Mission First'** approach & patented pre flight planning capabilities, most ideaForge drone missions are completed **effortless and handsfree**

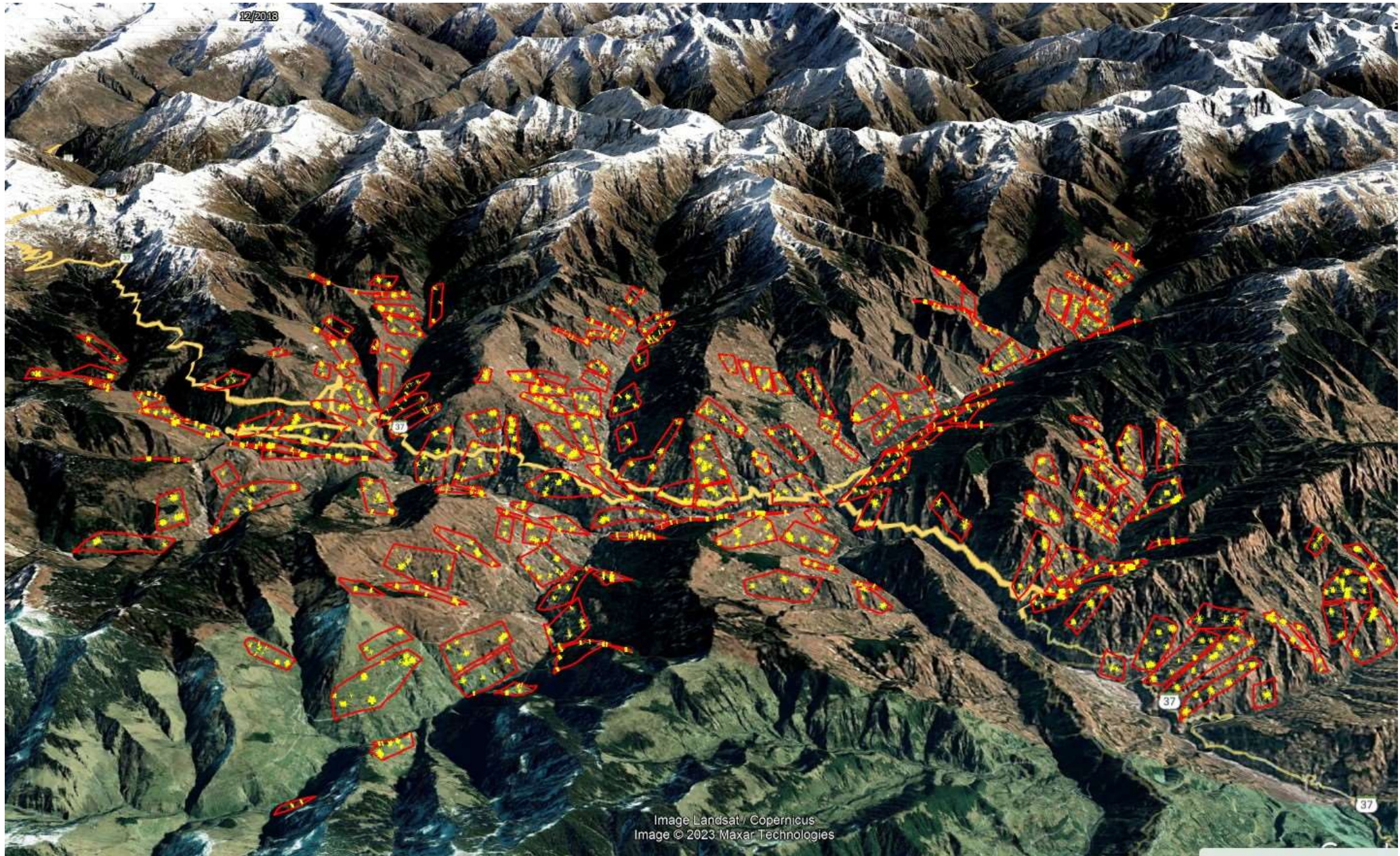


Image Landsat / Copernicus  
Image © 2023 Maxar Technologies

# Mapping in the toughest of terrains

ideaForge UAVs are **enabling mapping across Himachal Pradesh, Uttarakhand, Leh** and other mountainous regions of India **using the valley flying & precision landing feature**





# High Performance UAVs



**Q6**

60+ mins flight time

>2 sq.km per flight area coverage with mapping payload



**NETRA V4 PRO**

(only for US currently)

90 mins flight time

~5 sq.km per flight area coverage with mapping payload



**SWITCH**

120 mins flight time

# Land Survey & Mapping

We build a **complete solution** for **lowest TCO mapping**



Integrated solutions for seamless results



Maximum safety and autonomy in software



High performance and reliable hardware



# Automated solution workflow

Flight Planning

Data sorting & Geotagging

Upload data & Start photogrammetry

Analytics

Create Dashboard & Reports



*Flight planning with BFT*



*Geotagging with MapAssist*



*Cloud transfer & ORI processing initiation from within MapAssist*



*Analytics in the cloud using variety of integrations*



*Reports/Dashboards for decision makers*



# Thank You



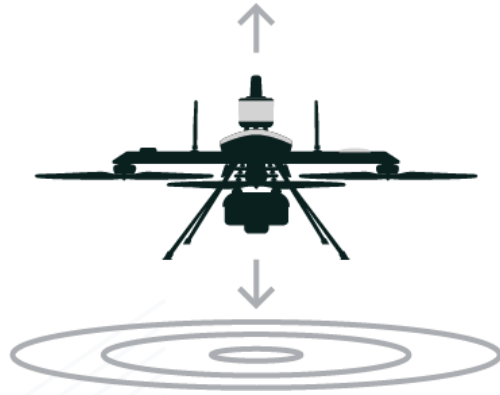
business@ideaforgetech.com



+91 84476 12778



# Safety & Autonomy



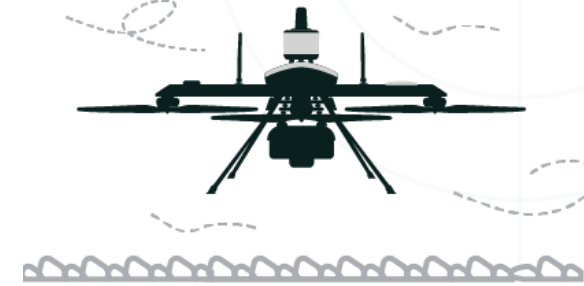
## Landing accuracy

<1m landing each time in high accuracy mode



## One-click processing

Pilot can initiate processing from MapAssist



## Fail-safe in every scenario

High-Wind, Vibration, GPS-failure, Comm

# Built Like a Bird, Tested Like a Tank

Siachen Glacier  
**5000 m+ AMSL**



More than **350,000**  
Missions Completed

**Indigenous drones**  
that offer best-in-class  
performance

Designed, built and  
tested to be  
operated **anywhere**  
**in world**

Sir Creek &  
Sundarbans Marshes  
and Sea



**55°C**

**-20°C**



**No compromise**  
on performance

Adapted to India's  
**diverse terrain and**  
**climate**

**Fully qualified UAVs to**  
**ensure survival in**

- Extreme temperatures
- High humidity
- Marine environment
- **Constant rains**
- Dusty weather

Go anywhere  
capability

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# Land Survey & Mapping

Barriers to create *high resolution maps* at *minimal cost*

## Drone flying & Data collection

- Low endurance drones
- Low area coverage per day
- Challenging terrain
- Unable to fly in valley areas
- Frequent crashes
- Lack of trained pilots
- Unreliable drones
- Equipment damage during transportation
- Mistakes during data collection and segregation
- Communication gap between project manager and pilots on field

## Data logistics & Processing

- Large amount of data
- Remote locations
- Limited internet access
- Corruption of files during transport in hard-disk
- Mistakes during PPK geotagging
- Incorrect GCP marking
- Processing settings unclear
- Incorrect photogrammetry settings
- Large size of output files
- Excessive time for processing
- Heavy capital investment for processing hardware

## Analytics and Collaboration

- Unfamiliarity with latest AI-tech
- Limited size of GIS team
- No budget for analytics
- Different formats required
- No template for reports
- No template for dashboards