

SAARC WEBINAR – MAY 2021




AERIALTRONICS
COMMERCIAL UNMANNED AIRCRAFT SYSTEMS


TECHNOLOGIES



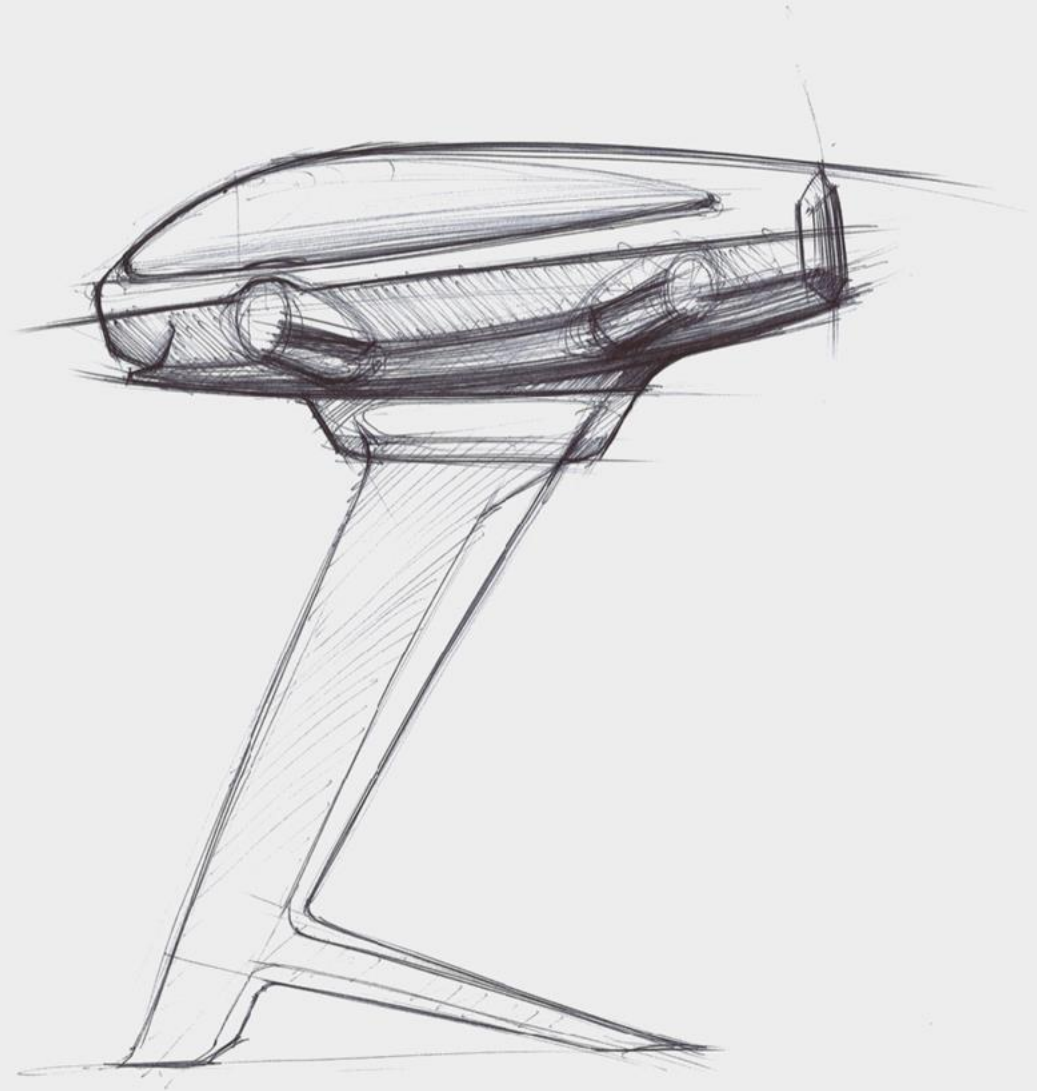


AERIALTRONICS
COMMERCIAL UNMANNED AIRCRAFT SYSTEMS

TECHNOLOGY DRIVEN

**Enabling a multitude of professionals to easily
survey, inspect and analyse data in real time.**

Aerialtronics is an end-to-end solution developer that utilises drones, artificial intelligence and IoT data to provide businesses with augmented and actionable insights that create a perfect synergy between aerial applications and everyday business operations.



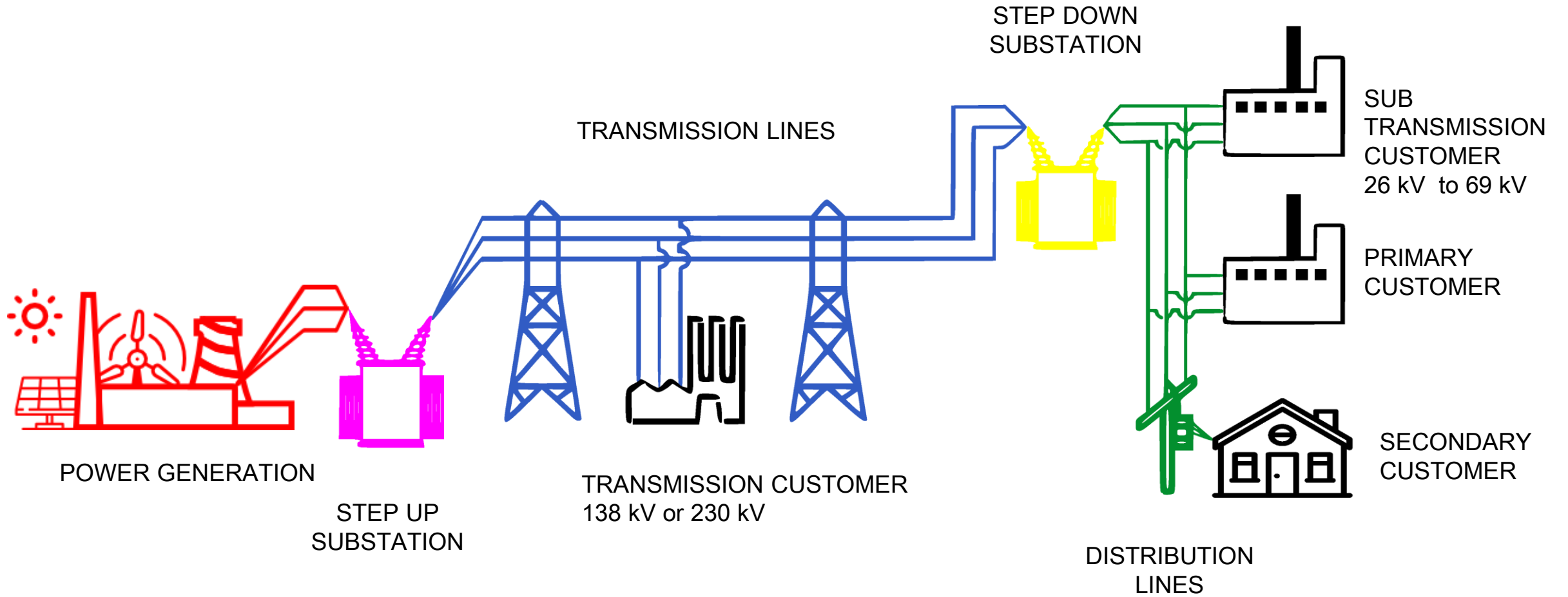




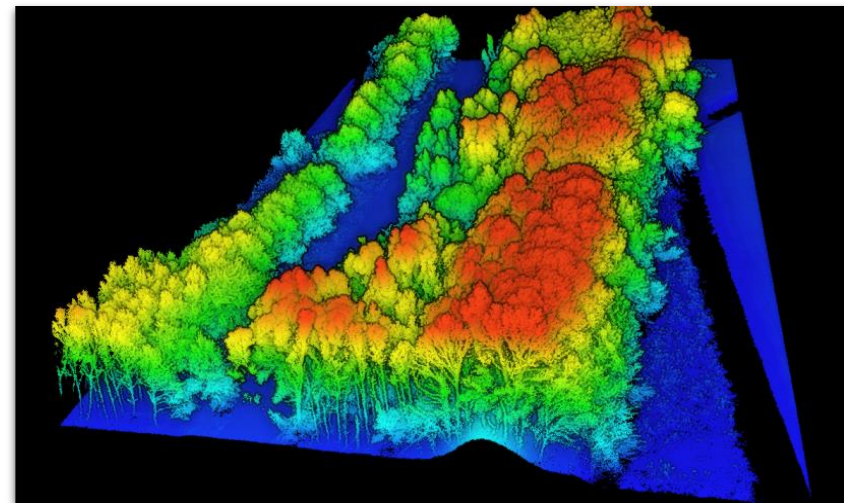
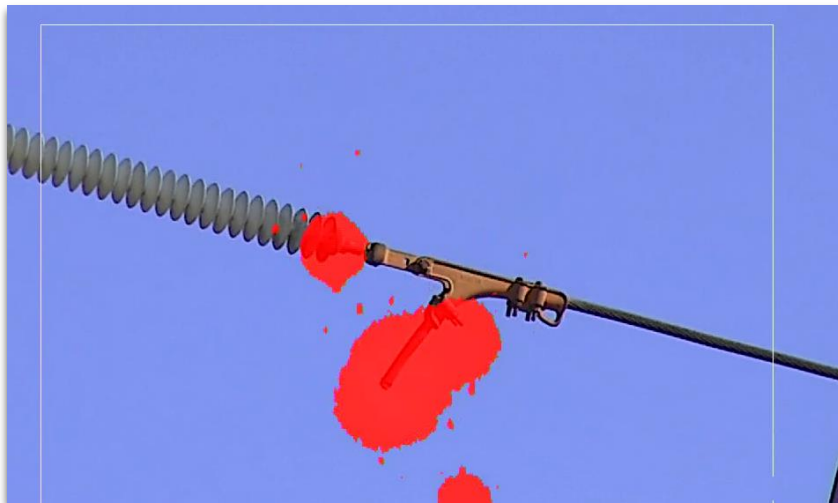
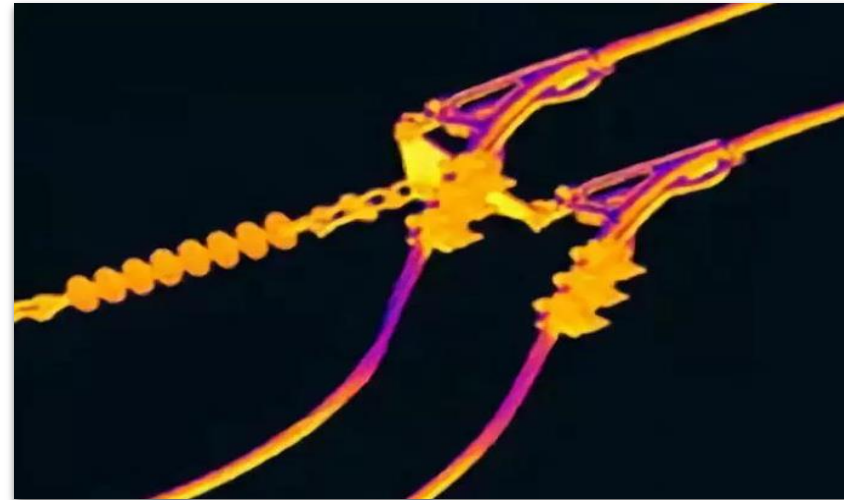
WE FOCUS ON RELIABILITY

Network reliability is inspected with our products. We integrate niche technologies to create world class corona camera solutions used by utilities globally, to inspect High Voltage infrastructure for problems with Visual, Thermal and Corona signatures.

THE NETWORK



INSPECTION TYPES



GENERATION





GENERATOR WINDING INSPECTIONS

ALTERNATE ENERGIES



TURBINE BLADE INSPECTION



SOLAR PANEL WASHING



SUBSTATION INSPECTIONS



HANDHELD SUBSTATION INSPECTIONS

COROCAM 6HD



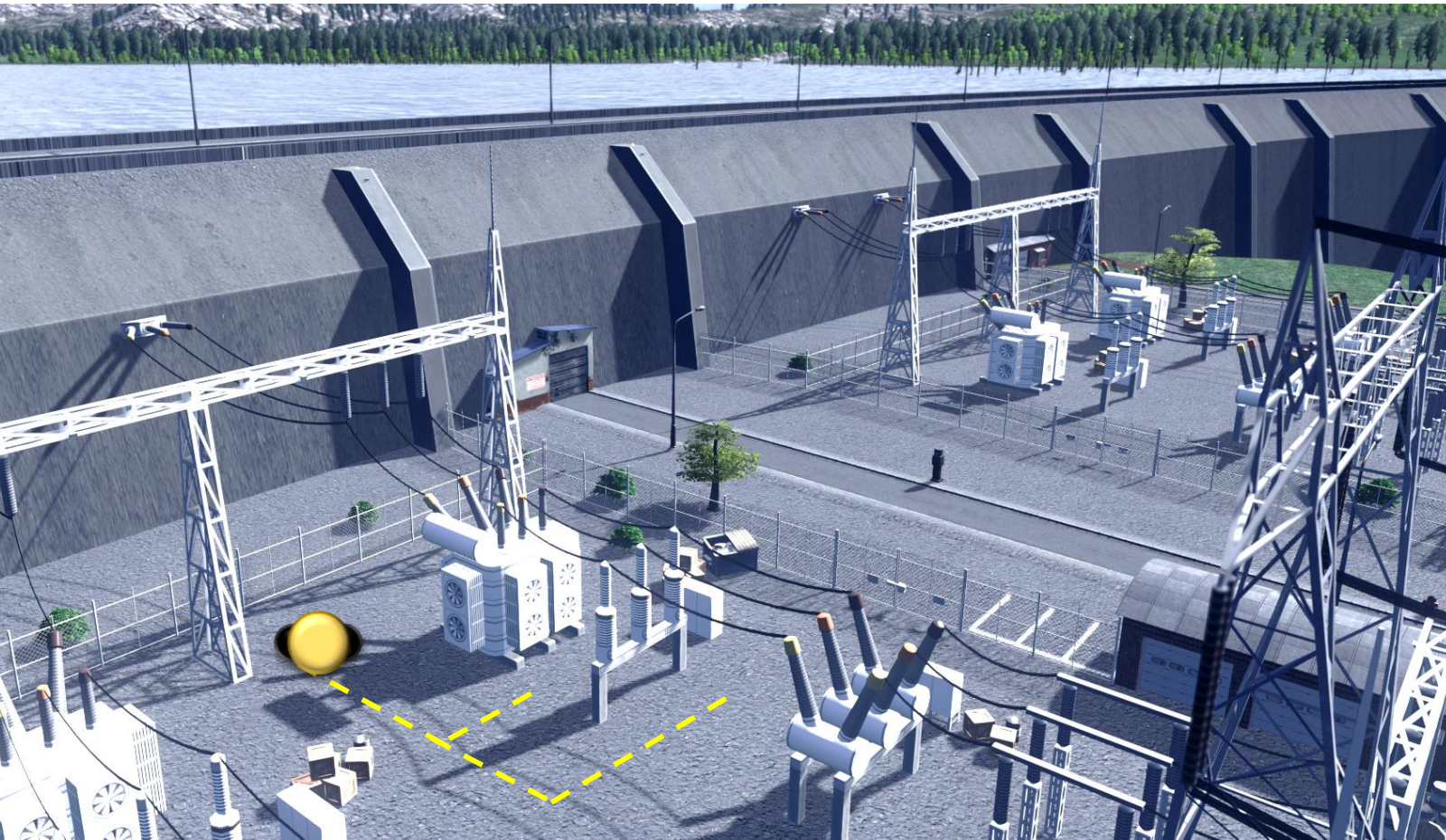
COROCAM 7



COROCAM 8



SUBSTATION AUTOMATED INSPECTION



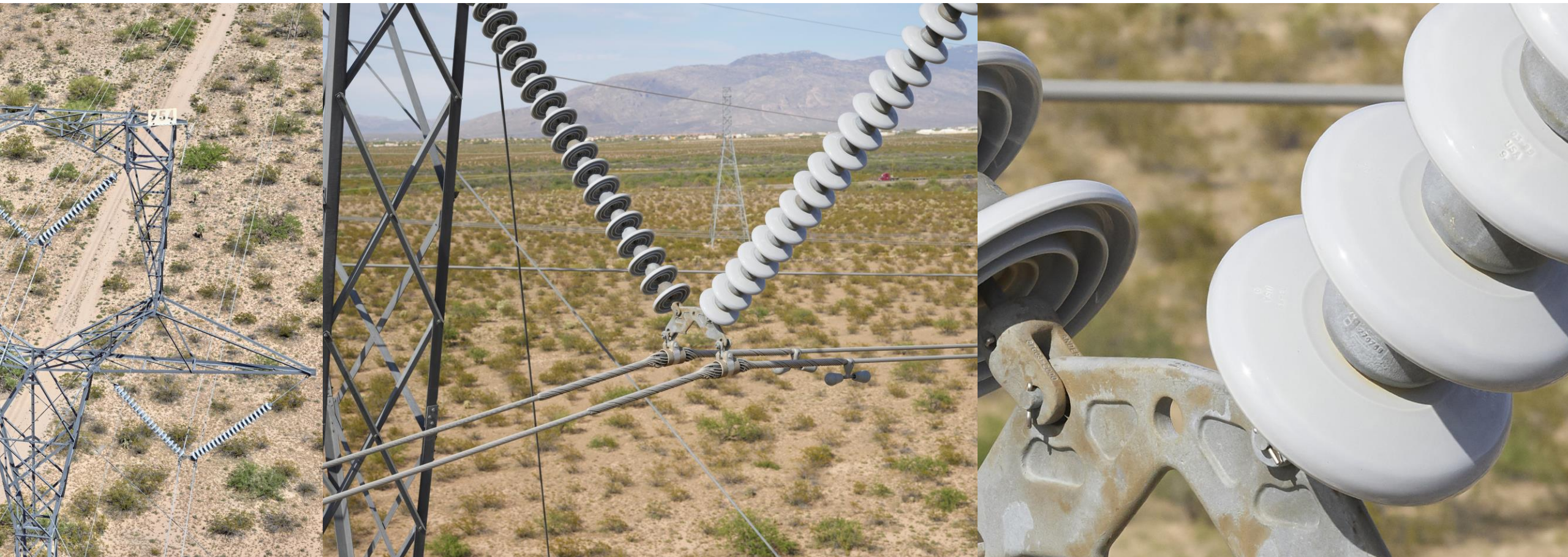
TRANSMISSION & DISTRIBUTION LINES



VISUAL VIDEO



VISUAL HIGH RES STILL



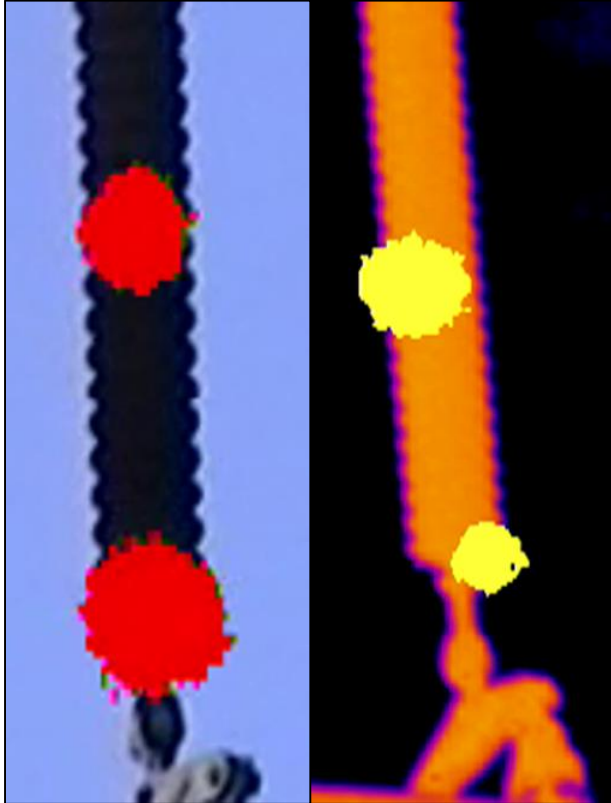
THERMAL



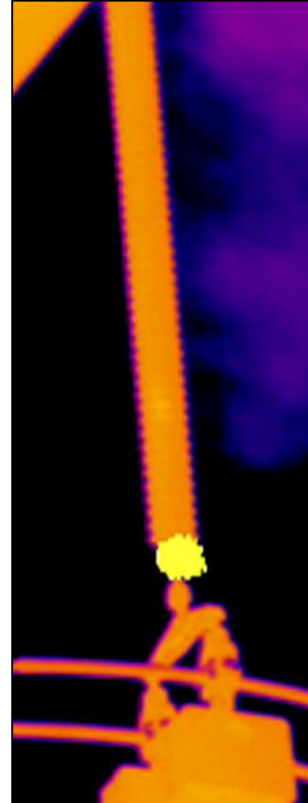
CORONA



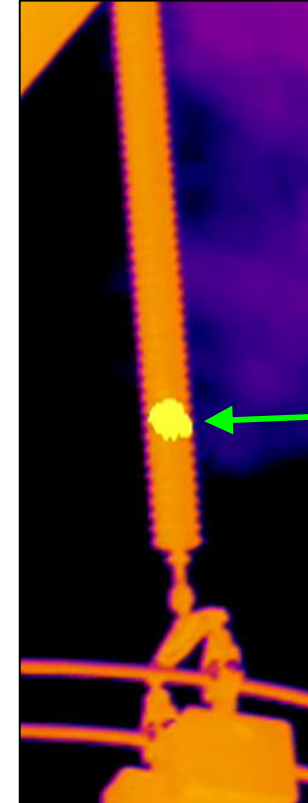
CORONA & THERMAL CO-LOCATION



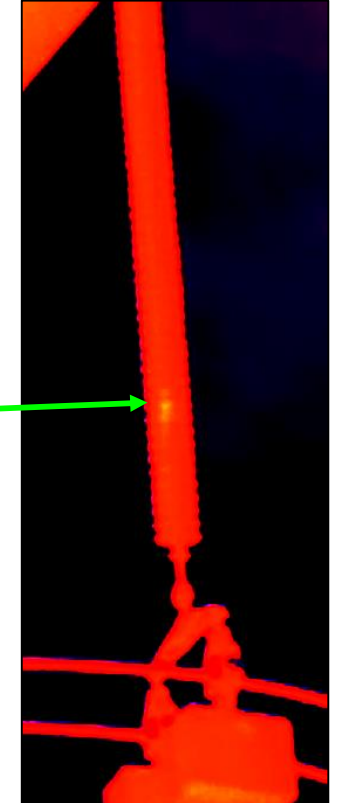
Corona at 2 locations
2 Different causes



End Fitting Corona –
failure within 4-10
years*



Corona co-located with a hotspot
indicating internal tracking – failure
within 0-2 years*



* Based on US EPRI information

LIDAR



UAV mapping of Powerlines corridor

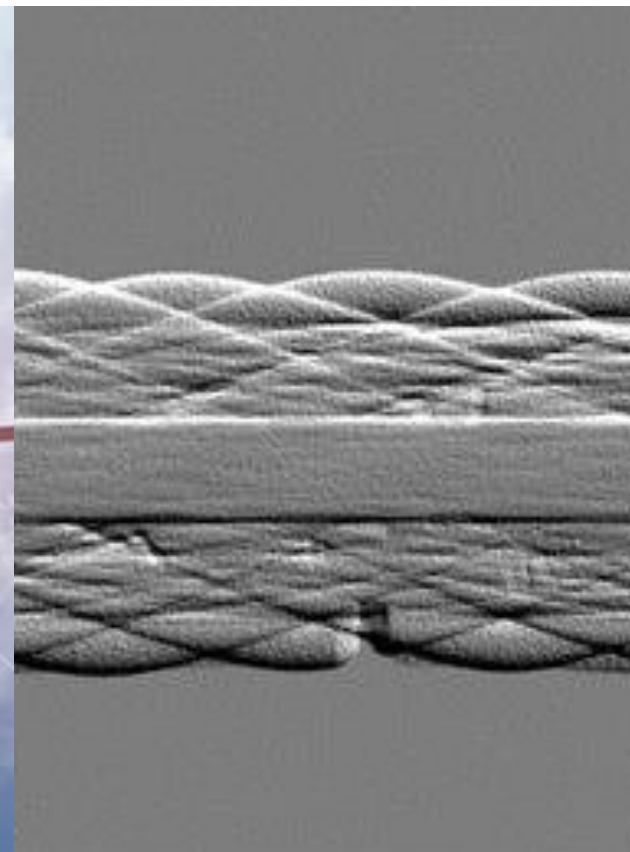
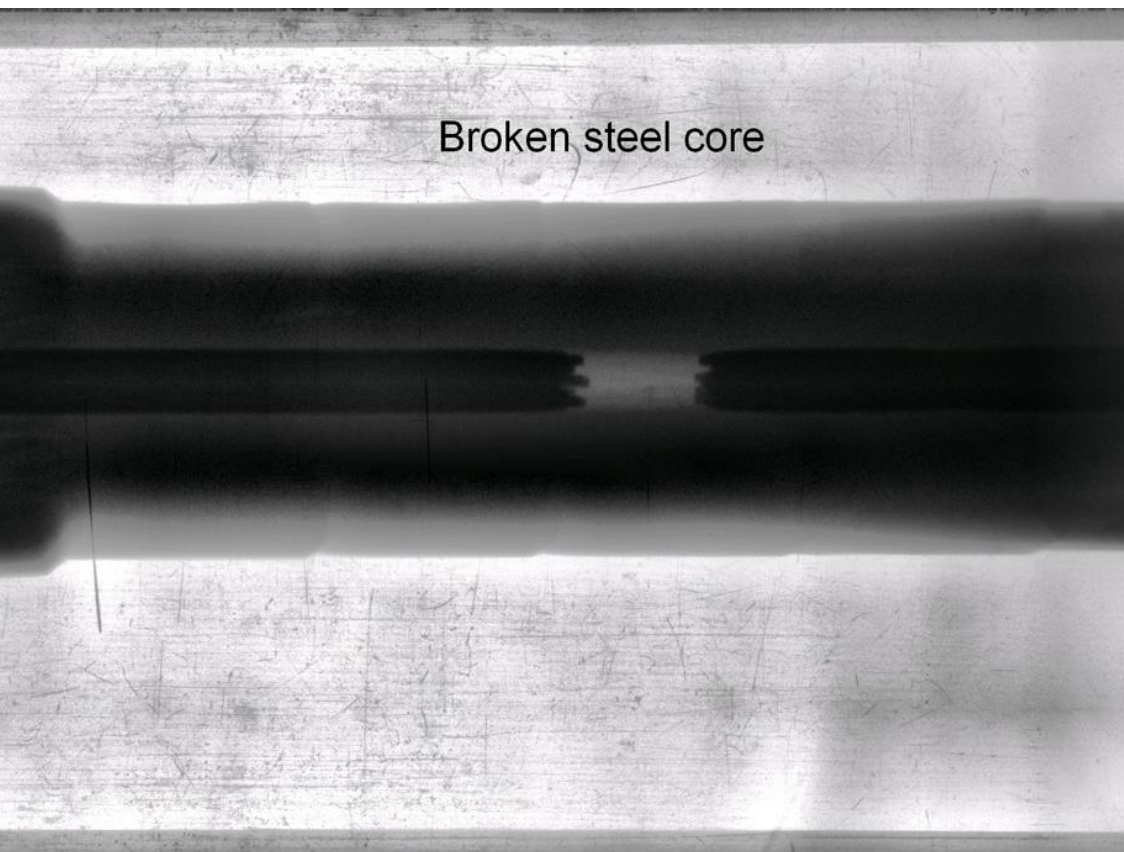
(lidarettto on the drone)



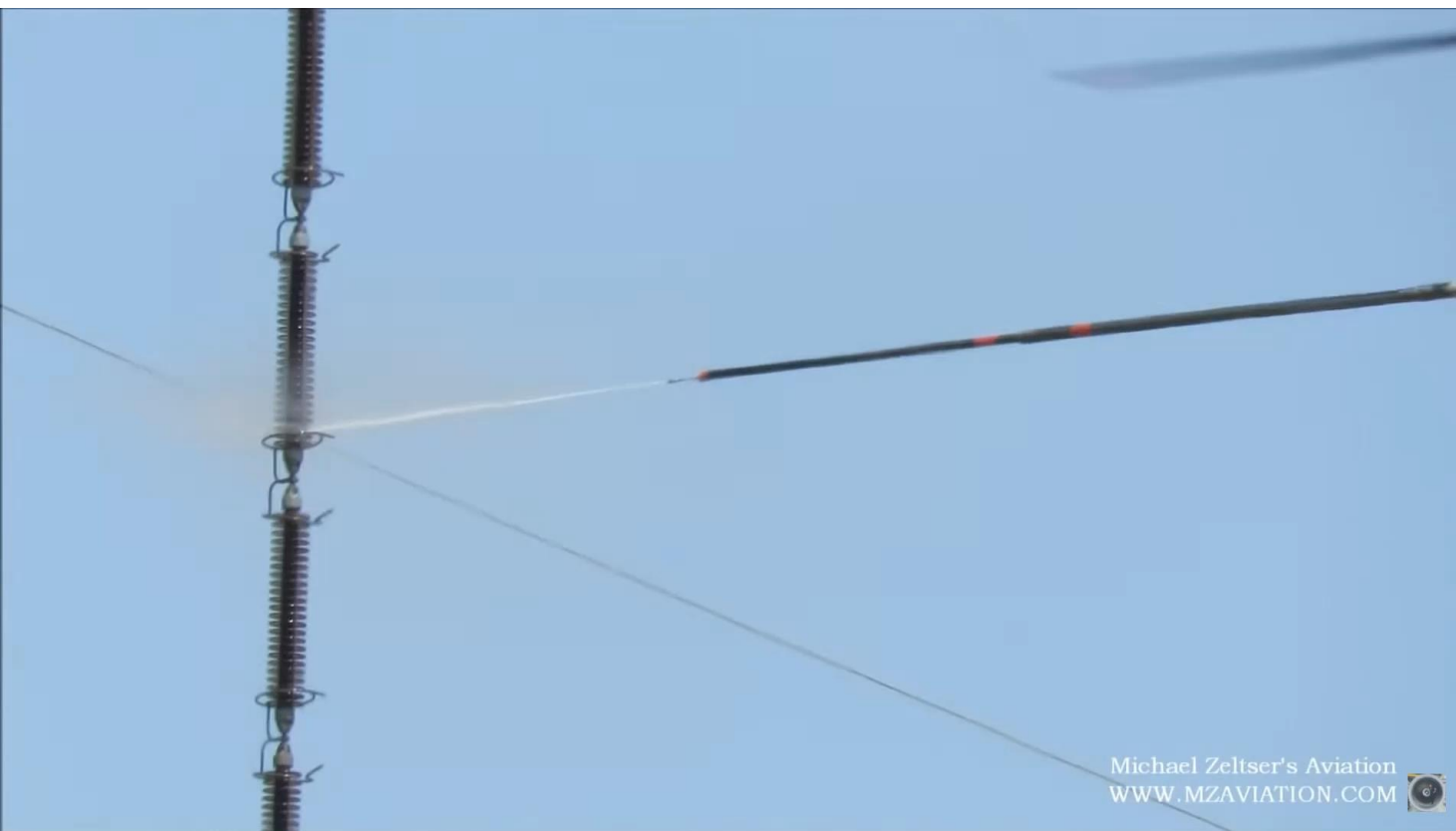
Backpack mapping of Powerlines corridor

(lidarettto on the backpack)

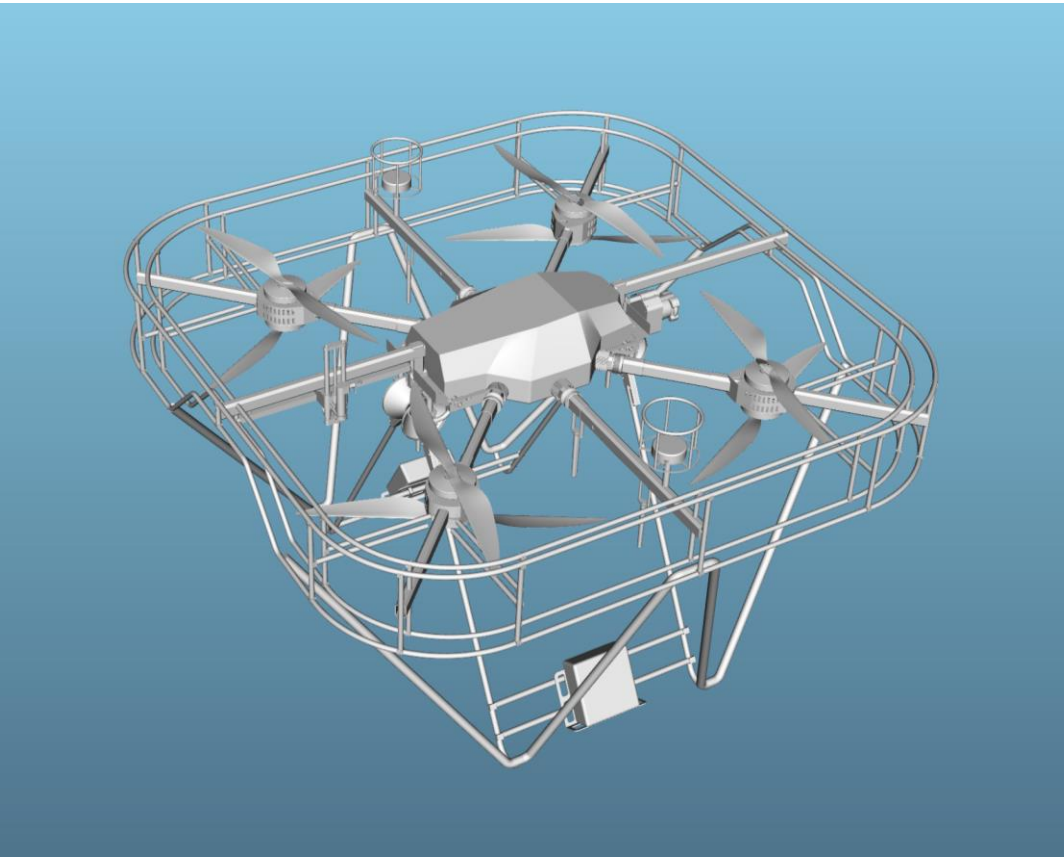
LINE SPLICE X-RAY



LINE WASHING & DEBRIS REMOVAL



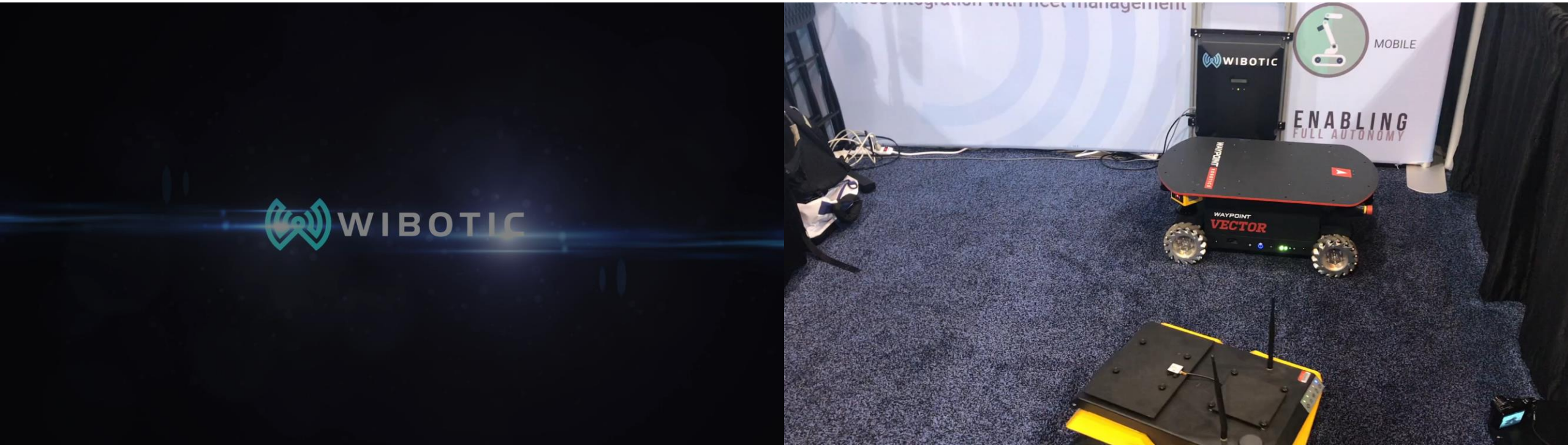
LINE DRONE INSPECTION



CONTROL



DEPLOYMENT



MULTITUDE OF SOLUTIONS

- Line pulling.
- Vegetation Monitoring.
- Pensar Camera.
 - Smart on-board analyses
 - Data training, sensor improvements, calculating power
- Preventive and predictive maintenance.
- Last mile delivery.
- And more...

CLOUD SOLUTIONS



CLOUD SOLUTIONS

- AI Cloud – Cognitive AD Cloud
- High Availability
- High Throughput
- Human supervision
- Secure communications / data transfer



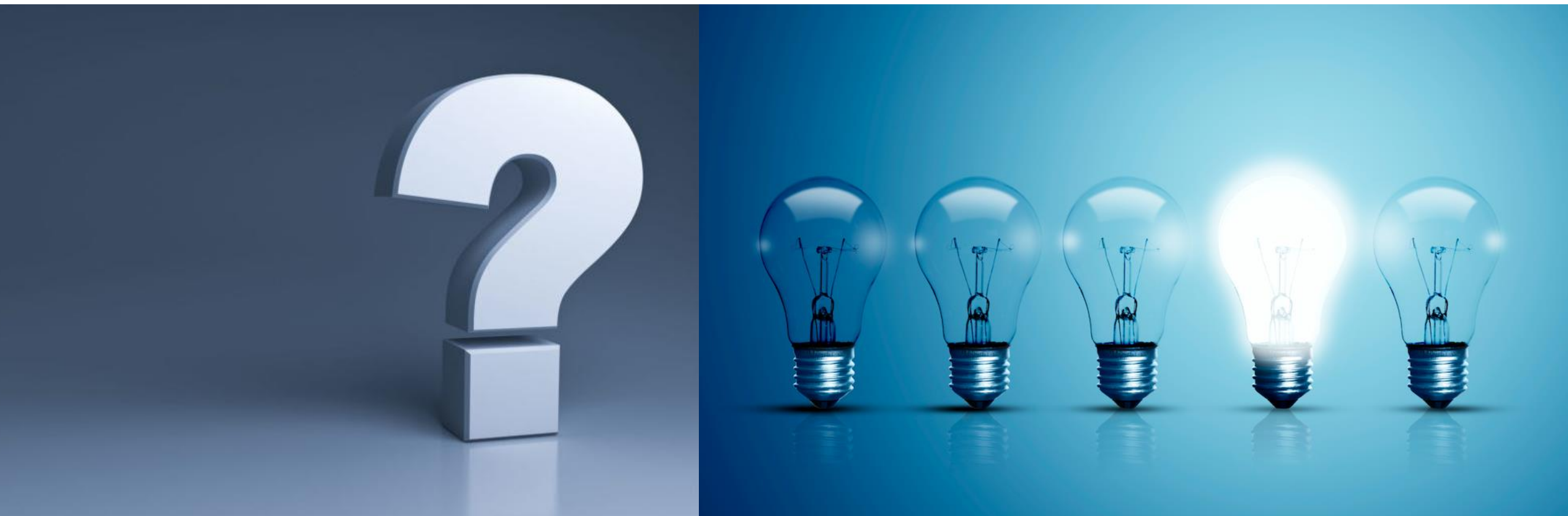
THE (NEAR) FUTURE

- Synergy between hard- and software & operations.
- Flight planning – micro route planning.
- BVLOS / U-Space.
 - Strategically positioned drones on site, remotely controlled
- Live data streaming.

THE (NEAR) FUTURE

- It's all about the data.
 - Labeling, where stored, how analyzed
- Complete data collected.
 - Digital twin, 2D/3D modeling, real time or post process, Enterprise Resource Planning
- Deep Analysis (automated & heuristic).
- Just the facts reporting to maintenance staff.
- Work and materials order auto generation.

QUESTIONS?



THANK YOU



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