# Trinity™ Pro

Expand your business opportunities with Trinity Pro.
A future-proof, reliable and easy to use mapping solution

# About us

Quantum Systems is more than just a drone manufacturer; we are an aerial data intelligence company that provides multi-sensor data collection products to government agencies and commercial customers. Our electric vertical take-off and landing (eVTOL) systems boast industry-leading endurance, ease of operation, and reliability.
We believe in dual-use, bringing commercial innovation and speed to the defence industry and field-proven and most robust systems to the business world. Customers in the public and private sectors alike use our versatile UAS for defense, security, humanitarian, and geospatial operations.
With a world-class team and nearly a decade of experience in drones, robotics and imagery collection, Quantum Systems has a proven technology stack and a strong track record of building best-in-class sUAS systems that provide mission-critical data to operators.

# Trinity™ Pro

## Designed to evolve

Trinity Pro is a future-proof mapping solution, built on a reliable, easy-to-use and safe platform. It is designed to adapt to changing requirements with evolving capabilities, and to accelerate decision making through aerial data. As technology evolves, so will the Trinity Pro.

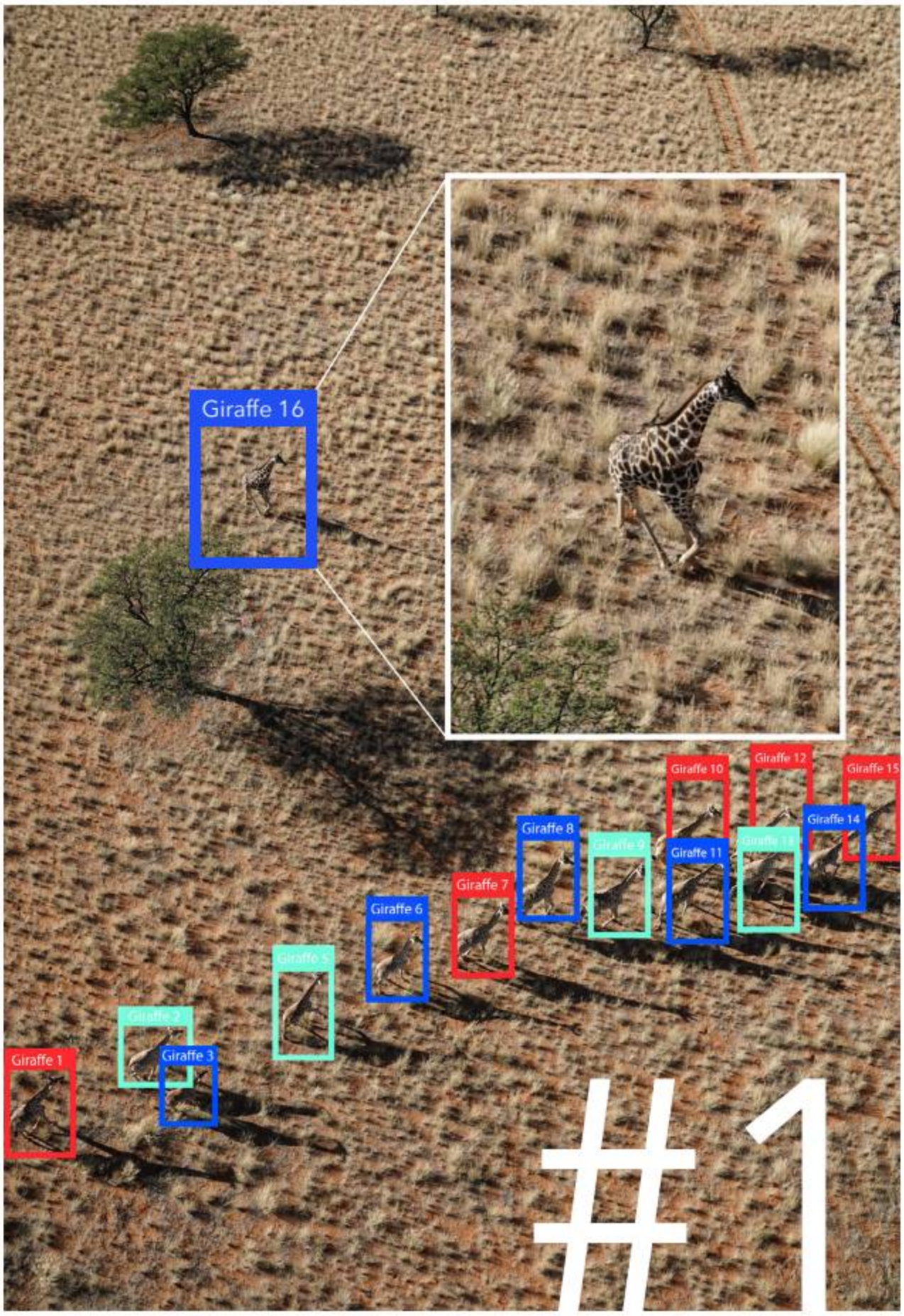
It integrates the latest Quantum-Skynode autopilot. This high performance product provide increased computing power and internal storage, as well as connectivity and AI readiness onboard the UAV.


QUANTUM
SYSTEMS

# Ready for tomorrow

## Add Trinity™ Pro to your portfolio and it will take you into the future

The Trinity platform was introduced to the market in 2018. With more than 115,000 flight hours on a global scale, it has proven its performance, accuracy, and reliability. The Trinity Pro incorporates the latest technology with the Quantum-Sky-node autopilot. This technology delivers increased computing power and internal storage, as well as enhanced connectivity onboard the aircraft. Not only does this allow downstream integration of next-generation cameras, but also of logging, simulation and AI capabililies. These integrations will change the way you interact with your data by reducing processing steps and office time, and provide answers quickly and accurately.




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## AI ready

The Quantum-Skynode allows for downstream integration of new capabilities, such as AI supported animal counting.

**#1**





# Accomplish your missions with ease

## Trinity™ Pro is easy-to-use and offers cutting edge safety features

The Trinity Pro, combined with our proprietary mission control software QBase 3D, form a completely integrated system.

During field operation, Trinity Pro gives the operator peace of mind. The Quantum-Skynode flight control stack has the latest safety features, ensuring the UAV is flying in the safest possible way, including automatic self-diagnostics, terrain awareness, wind simulation, and AI powered "return to home".

Potential detected risks are reported during mission planning and before take-off, reducing the risk of an adverse event during flight.

Industry-specific software connections in QBase 3D makes post-processing work simpler. The user can create application-specific reports and analyses without having to spend time establishing new and complicated processes.




## Self-system checks

Extensive pre-flight checks and auto servo calibration gives the user confidence in the system and little to worry about.

#2

## Plan missions with ease

Set up to 300 waypoints and benefit from automatic wind simulation and advanced terrain following.

#3







## Easy to carry

A backpack to carry and store Trinity Pro is offered as an option.

#4

# Exploit new opportunities

## The performance parameters of this versatile mapping tool enables growth and opens new business opportunities

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With the ability to perform in the most challenging environmental conditions, Trinity Pro captures more data per mission than almost any other comparable drone on the market. Trinity Pro also comes with the largest range of sensors in the industry, which are simply "plug and play".

Quantum Systems strives for constant expansion of its software solutions. The proprietary nature of our software stack allows us to push the envelope for the drone's capabilities, and the operational and workflow features.






## Drone-based LiDAR technology

The Qube 640 is a LiDAR sensor with a 176° FOV, integrated colorization through an 8MP camera, enhanced vegetation penetration and vertical scanning.

#6




## Terrain awareness

Down facing LiDAR for safe landing through ground avoidance and embedded landing confirmation.

#7

## A/B Missions

Take-off and land in different locations enables long corridor mapping.

#5

| 4,800 m | IP 55 | 14 m/s |
|---|---|---|
| Take-off altitude | Rating | Wind tolerance[1] |

[1]Subject to export regulation. Limited to 12.8 m/s by default.

# Technical data

| | | |
|---|---|---|
| Max. take-off weight | 5.75 kg | 12.68 lbs |
| Max. payload weight | 1 kg | 2.20 lbs |
| Wingspan | 2.394 m | 7.85 ft |
| Transport case dimension L x W x H | 1002 x 830 x 270 mm | 39.4 x 32.7 x 10.6 ″ |
| Max. flight time[1] | 90 min | 90 min |
| Linear coverage | 100 km | 62 mi |
| Area coverage[2] | 700 ha | 1,730 ac |
| Max. take-off altitude [above MSL][3] | 4800 m | 15,748 ft |
| Maximum flight altitude | 5500 m | 18,045 ft |
| Optimal cruise speed | 17 m/s | 33 kn |

## Wind Tolerance

| | | |
|---|---|---|
| Hover phase (take-off/landing)[4] | 11 m/s | 21.4 kn |
| Continuous (cruise)[5] | 14 m/s | 27.2 kn |
| Gusting (cruise)[5] | 18 m/s | 35 kn |

| | | |
|---|---|---|
| Ingress protection rating | IP55 | IP55 |
| Operating temperature range | -12 to +50 °C | 10.4 to 122 °F |
| Transmitter frequency | 2,4 GHz | 2,4 GHz |
| Transmitter output power | 100 – 1,000 mW | 100 – 1,000 mW |
| Command and control range | 5 – 7.5 km | 3.1 – 4.7 mi |

[1] Subject to export regulation. Limited to 59 min by default.
[2] Sony RX1 RII, at 120m flight altitude and 1.5 cm GSD.
[3] Hover wind tolerance reduced to 5 m/s.
[4] 8 m/s or 15.6 kn with Qube 240 or Oblique D2M.
[5] Subject to export regulation. Limited to 12.8 m/s or 24.88 kn by default.

# Maximize your outcome

## Trinity™ Pro is a high uptime system, known for easy maintenance and repair

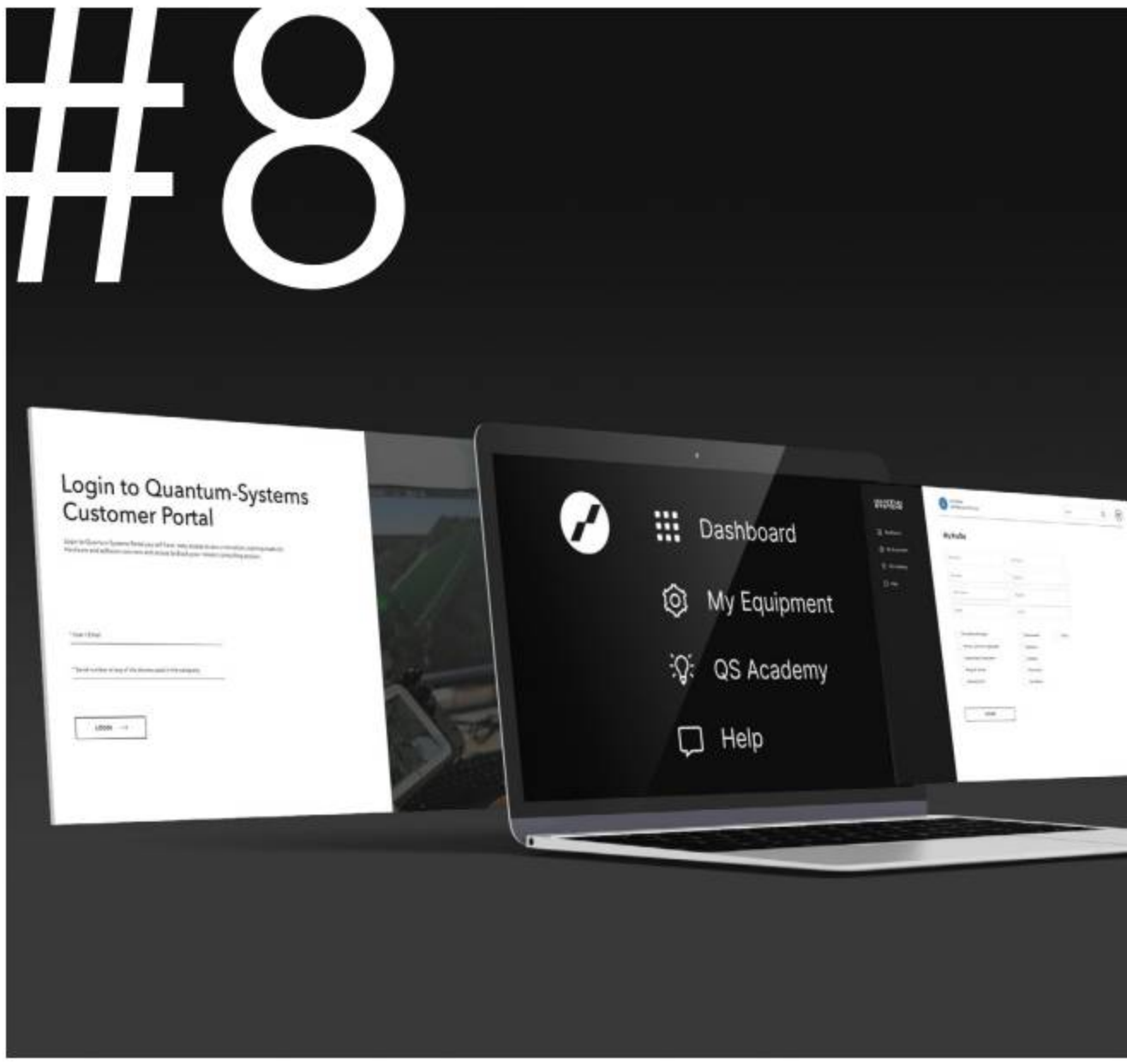
Quantum Systems has a proven track record of 115,000 hours of flight time with the Trinity platform. The Trinity Pro takes all the advancements in safety and reliability from this and takes it a step further.

With the Quantum-Skynode, the Trinity Pro performs enhanced system monitoring of all onboard systems to ensure perfect operations and to predict maintenance. The new Quantum Systems Customer Portal is ready to guide new users through all processes and operations with informative online material and courses.
Our world-class support, service, and training team are standing by and ready to help in case additional help is needed.

### World-class support

The new Quantum Systems Customer Portal is ready to guide new users through all processes and operations with informative online material and courses.

#8



# What our customers say



## Mr. Asta Jaya

Head of Remote Sensing, PT. Musi Hutan Persada

"We have been using our Trinity since October 2020 and have already completed over 1,000 flights and almost 1,000 flight hours with it. The device is robust, easy-to-use and easy to maintain. The fast response time and support from the local customer service, which speaks our language, should also be emphasized."

PT. Musi Hutan Persada is a forestry company under the Marubeni Group, loated in Muara Enim Palembang, South Sumatra. They manage 350,000 hectares of eucalyptus Trees that must be monitored daily. Monitoring and mapping of the large area happens with the support of the Trinity F90+ UAV by Quantum Systems.

## Khairul Ariffin Bin Mohd Aris

Chief Operating Officer AECA Solutions

"With this groundbreaking technology, completing a large aerial 3d mapping has never been this easy and quick. The combination of Trinity Pro and the Oblique D2M is an ultimate setup to reconstruct a 3d model with a city-scale."

AECA Solutions is a leading Geospatial Intelligence Specialist in Malaysia, serving Southeast Asia, including Singapore and Indonesia. They specialize in acquiring and analyzing spatial imagery to enhance operational effectiveness, utilizing advanced drone technology and survey-grade sensors to enable informed decision-making.

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