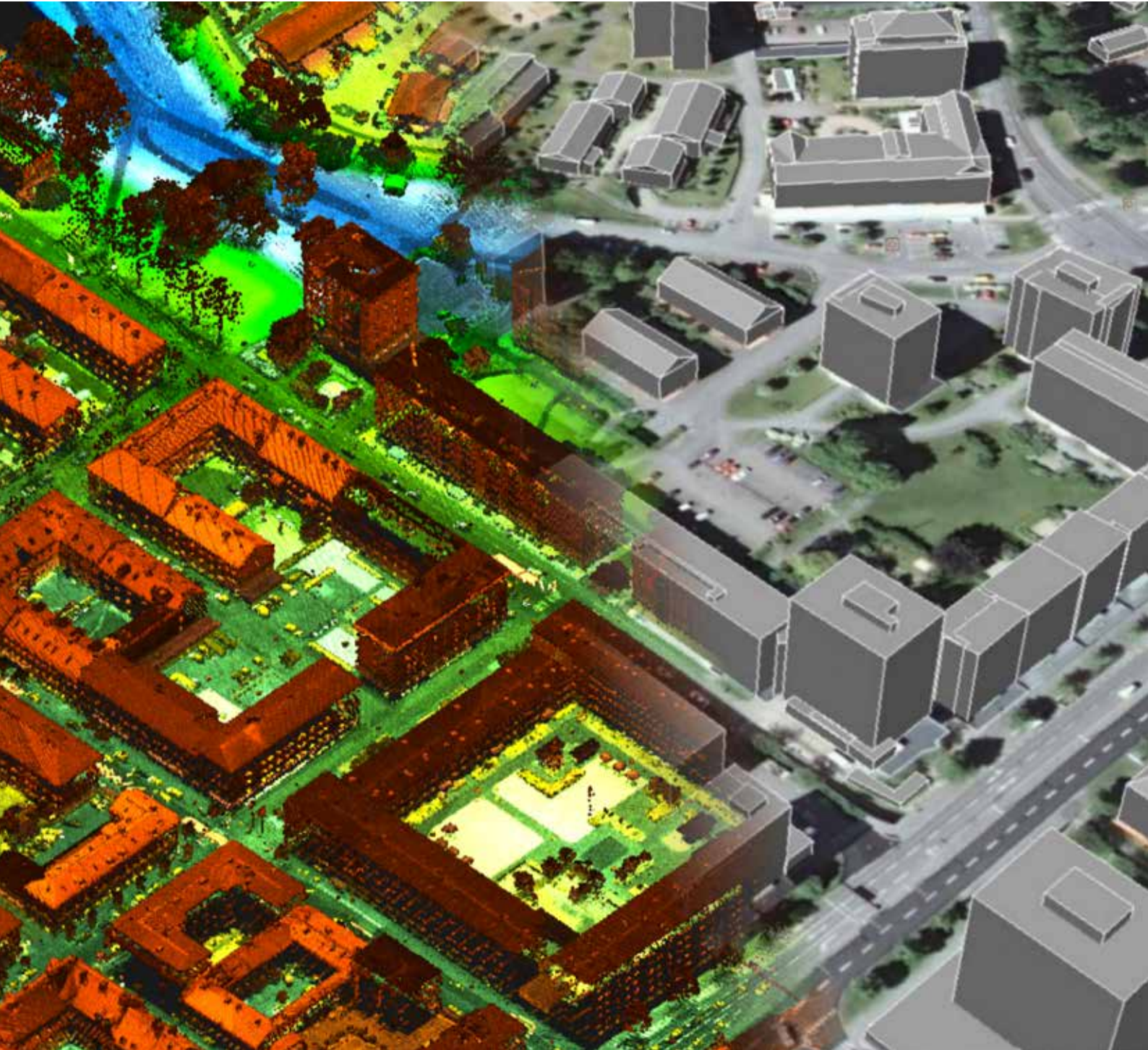


# Airborne Topographic LiDAR Solutions

Efficiency & accuracy

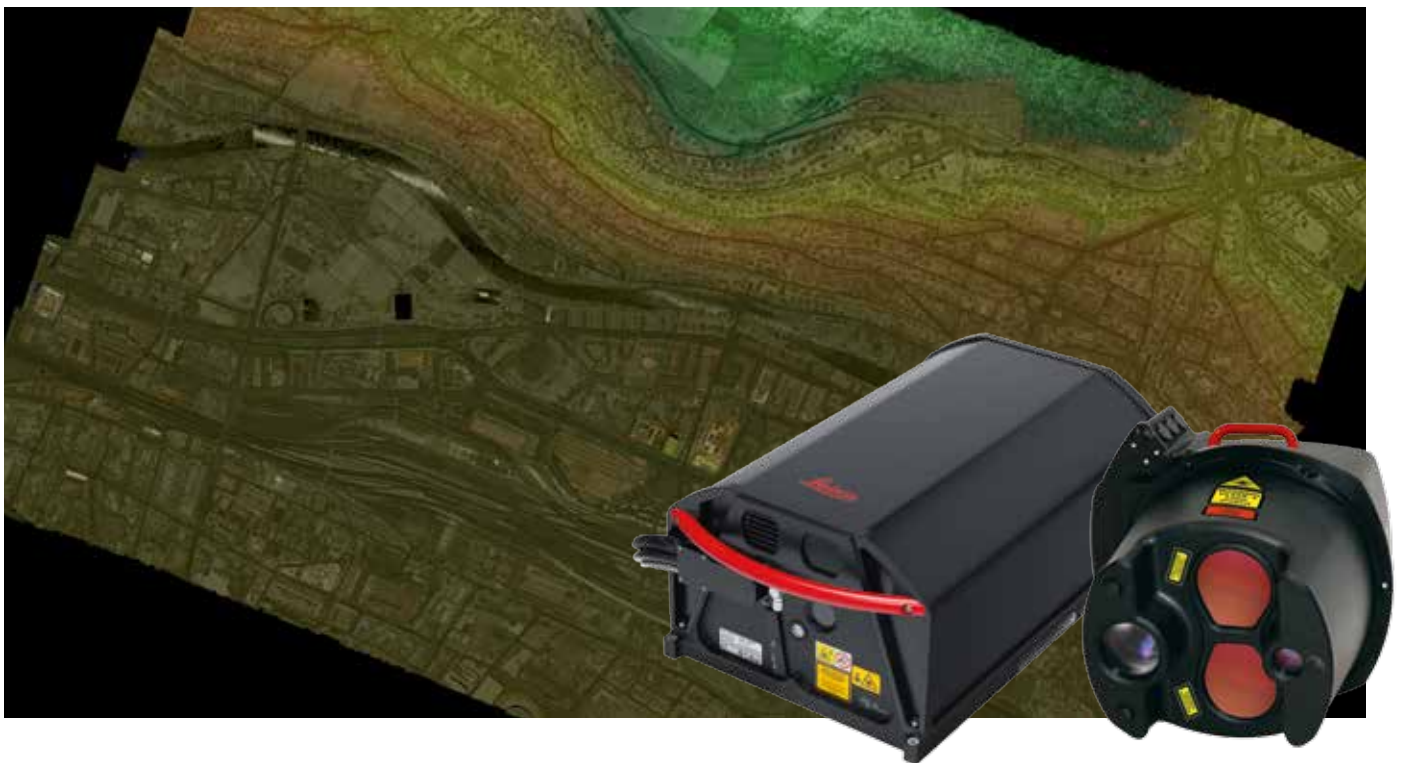




# Leica ALS80 & DragonEye – efficiency & accuracy for all applications

Real-world efficiency is what defines your ability to execute survey projects quickly and accurately. With five system offerings, each providing outstanding flexibility, you will find the one that meets your needs and helps you to excel on the contracts you need to fulfil tomorrow and beyond. Whether your application involves providing detailed, high-point-density city models or covering vast expanses of remote terrain with big terrain relief, Leica Geosystems topographic LiDAR systems deliver best-in-class efficiency with the highest pulse rates at all flying heights.

You work in the real world with real environments and real targets. The topographic LiDAR sensor family offers options for high temperature operations up to 40 °C and flying heights to 5,000 m AGL. All systems provide sensitivity to capture even low reflectivity targets like recently paved roadways or small features like shield wires on power transmission corridors.



## Efficiency from low to high altitudes

Leica DragonEye features on-the-fly, waveform-to-range data conversion without extra data storage and ground processing burdens. Leica ALS80 features time-proven, accurate, discrete return range and intensity data measurement with models capable of operation up to 5 km flying height and covering nearly 8 km swath, all with real world, low reflectivity targets. Both systems feature high-speed workflows to complement their industry-leading acquisition speeds.



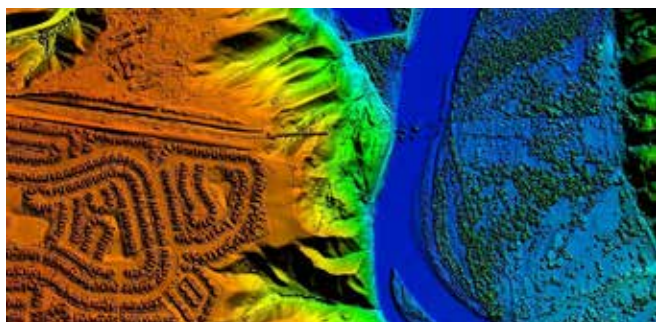
## Different scans for different plans

Leica DragonEye, with its unique oblique scan pattern, is ideal for low-aspect-ratio urban environments and utility mapping where high detail on vertical surfaces is needed. Leica ALS80, with adjustable FOV and 3 planar scan patterns, provides ultimate flexibility and altitude capability. Both offerings provide effective pulse rates up to industry leading 1.0 MHz for maximum data acquisition productivity and reduced flight times.



## One flight, more unique data products

Both sensors feature fully integrated imaging systems. The unique Leica RCD30 camera is available in a variety of resolutions and focal lengths, and in 3-band or 4-band variants, allowing you to tailor the imaging sensor to precisely suit your mission. All systems offer optional full-waveform recording capabilities for specialised applications while also providing high quality point cloud data fused with image data for ultimate flexibility in decision making.



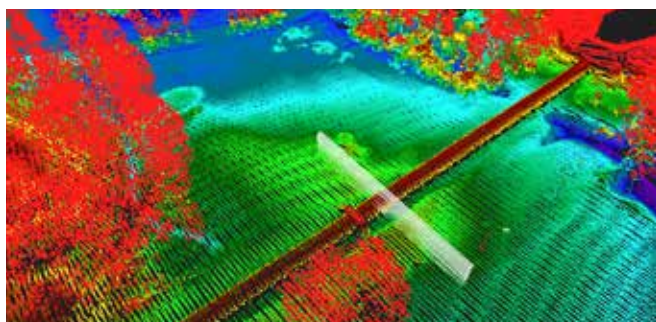
#### WIDE-AREA MAPPING WITH LEICA ALS80

- High AGL capability and wide FOV range for large-area coverage
- Outstanding pulse rates at all flying heights for maximum productivity
- Small beam divergence increases planimetric accuracy, even from maximum flying heights
- Adjustable FOV and scan patterns for ultimate flexibility in point density over any terrain type



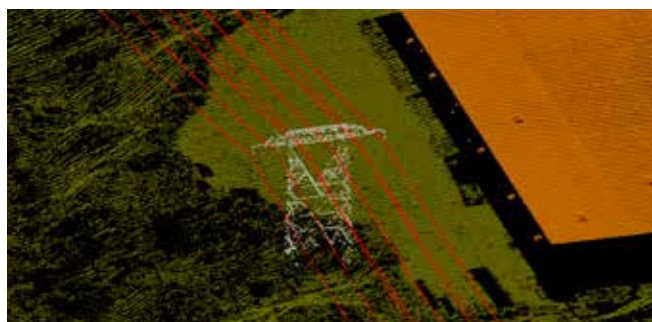
#### CITY MODELLING WITH LEICA DRAGONEYE

- Oblique scan with each surface measured from multiple vantage points enhances detail on vertical surfaces
- Fused RGB imagery allows easier separation of vegetation near buildings, producing cleaner building models
- PAV100 gyro-stabilised mount installation minimises the need for side overlap, maximising efficiency at low flying heights typical for city modelling
- Low range jitter for smooth building models



#### PIPELINE (ALL MODELS)

- High point density for proper modelling and localisation of pipelines
- High accuracy at high point density for easy detection of erosion around supporting structures and access paths
- Wide swath capability for acquisition of entire right-of-way without multiple flights
- High scan rates allow data acquisition from low-cost fixed-wing aircraft



#### POWER LINE (ALL MODELS)

- High sensitivity for detection of small ground wires, guy-wires and small vegetation
- Small beam divergence reduces position error on small targets
- High accuracy measurement of ground and vegetation clearance for line re-rating and vegetation management
- Internal and pod installations available for maximum platform flexibility

## Cost-saving common sensor platforms

Leica Geosystems is the only provider offering imaging and LiDAR solutions based on a common sensor platform of system peripherals and software. Users can share components and common operator and pilot interfaces between systems for simple, consistent installation across all airborne sensors, providing synergies in ground handling and operator training regardless of the array of systems employed. Likewise, common mission planning makes it efficient for a small workforce to plan for a wide variety of missions, all from a familiar planning interface. This results in efficient workflow, reduced training and cost savings.



OC60 operator console and PD60 pilot display with FlightPro flight navigation and sensor control software



PAV100 gyro-stabilised mount



MissionPro mission planning software

## Leica Geosystems – when it has to be right

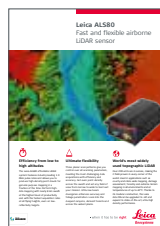
Revolutionising the world of measurement and survey for nearly 200 years, Leica Geosystems creates complete solutions for professionals across the planet. Known for premium products and innovative solution development, professionals in a diverse mix of industries, such as aerospace and defence, safety and security, construction, and manufacturing, trust Leica Geosystems for all their geospatial needs. With precise and accurate instruments, sophisticated software, and dependable services, Leica Geosystems delivers value every day to those shaping the future of our world.

Leica Geosystems is part of Hexagon (Nasdaq Stockholm: HEXA B; hexagon.com), a leading global provider of information technologies that drive quality and productivity improvements across geospatial and industrial enterprise applications.



Invisible laser radiation, avoid eye or skin exposure to direct or scattered radiation. Class 4 laser product in accordance with EN/IEC 60825-1:2014.

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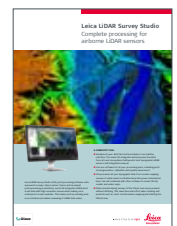
**Leica ALS80**  
Fast & flexible  
airborne  
LiDAR sensor



**Leica DragonEye**  
Oblique  
high-performance  
LiDAR sensor



**Leica CloudPro**  
Intelligent point  
cloud processing  
for ALS sensors



**Leica LiDAR  
Survey Studio**  
Complete  
processing for  
airborne LiDAR  
sensors