



Borehole Excavation Scanner BES

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GeoSight Innovation

- 1989: CMS introduced and didn't change for over 20 years
- 2011: GeoSight launched a buggy deployment, Wi-Fi and User calibration.
- CMS Innovation improvement is our core
- 2016: NX 150 traditional CMS scanner
- 2019: Reached 100+ sales from around the world
- Drones are starting to redefine traditional CMS methodology
- Time now for our next innovation

Traditional GeoSight CMS

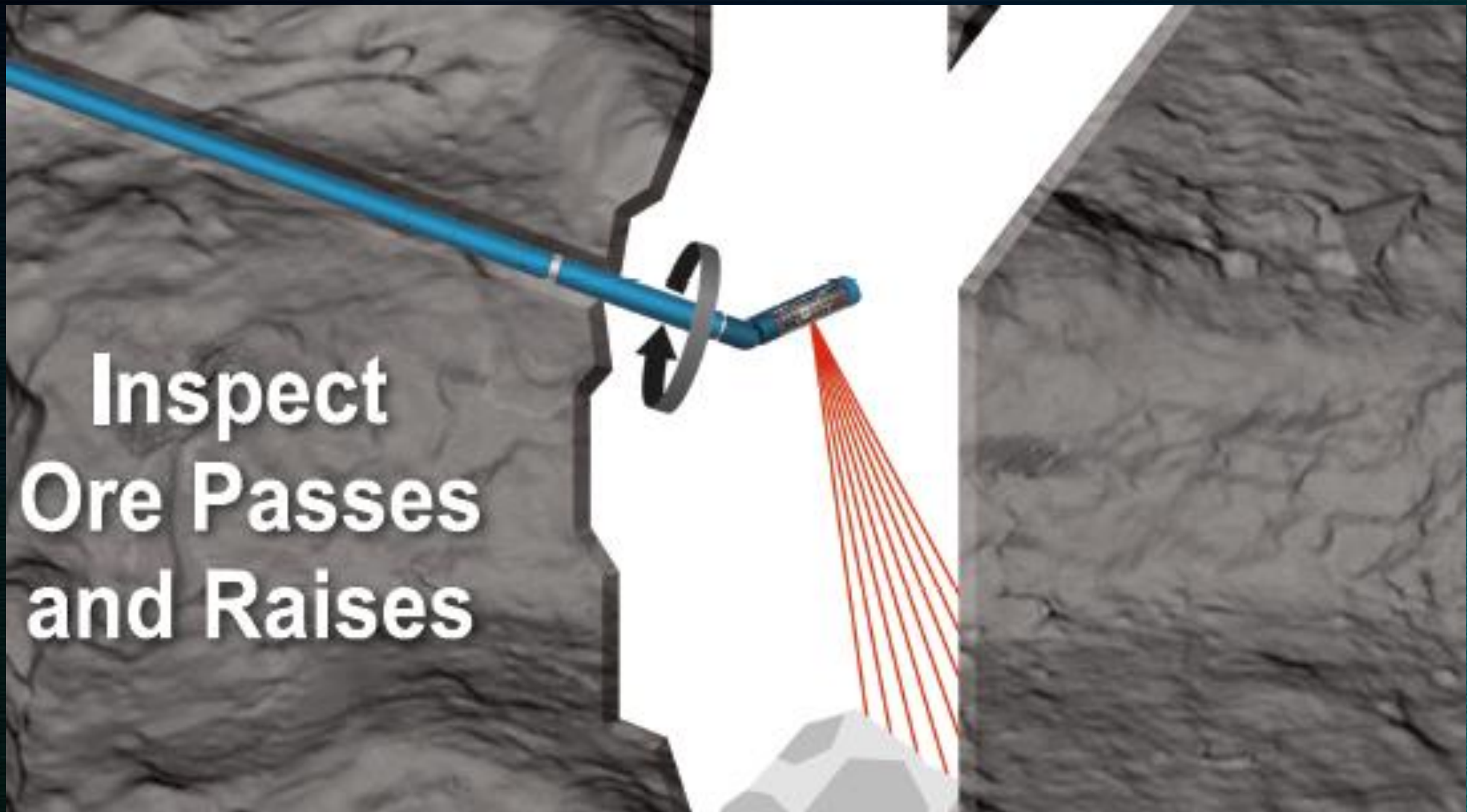
Our CMS can take a beating



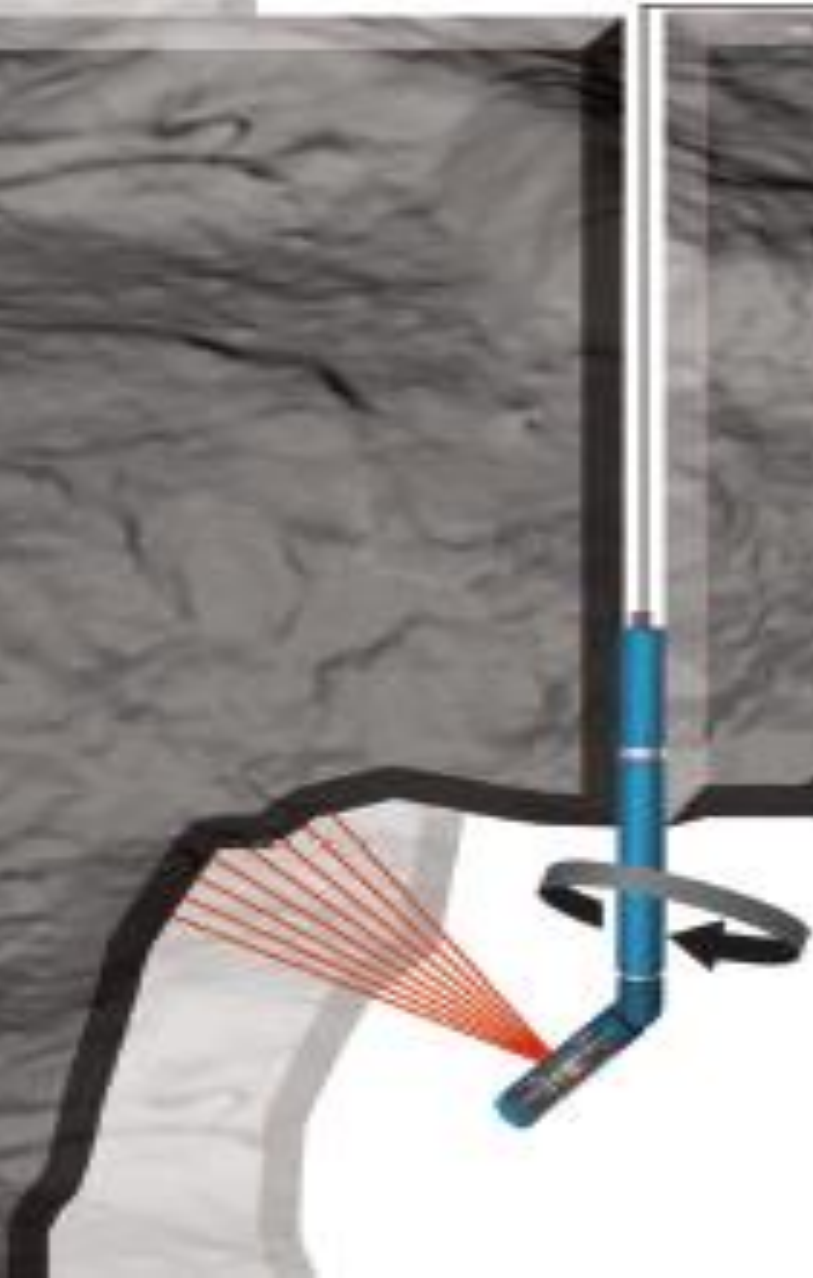
Meet BES



Inspect Ore Passes and Raises



Scan Inaccessible Stopes



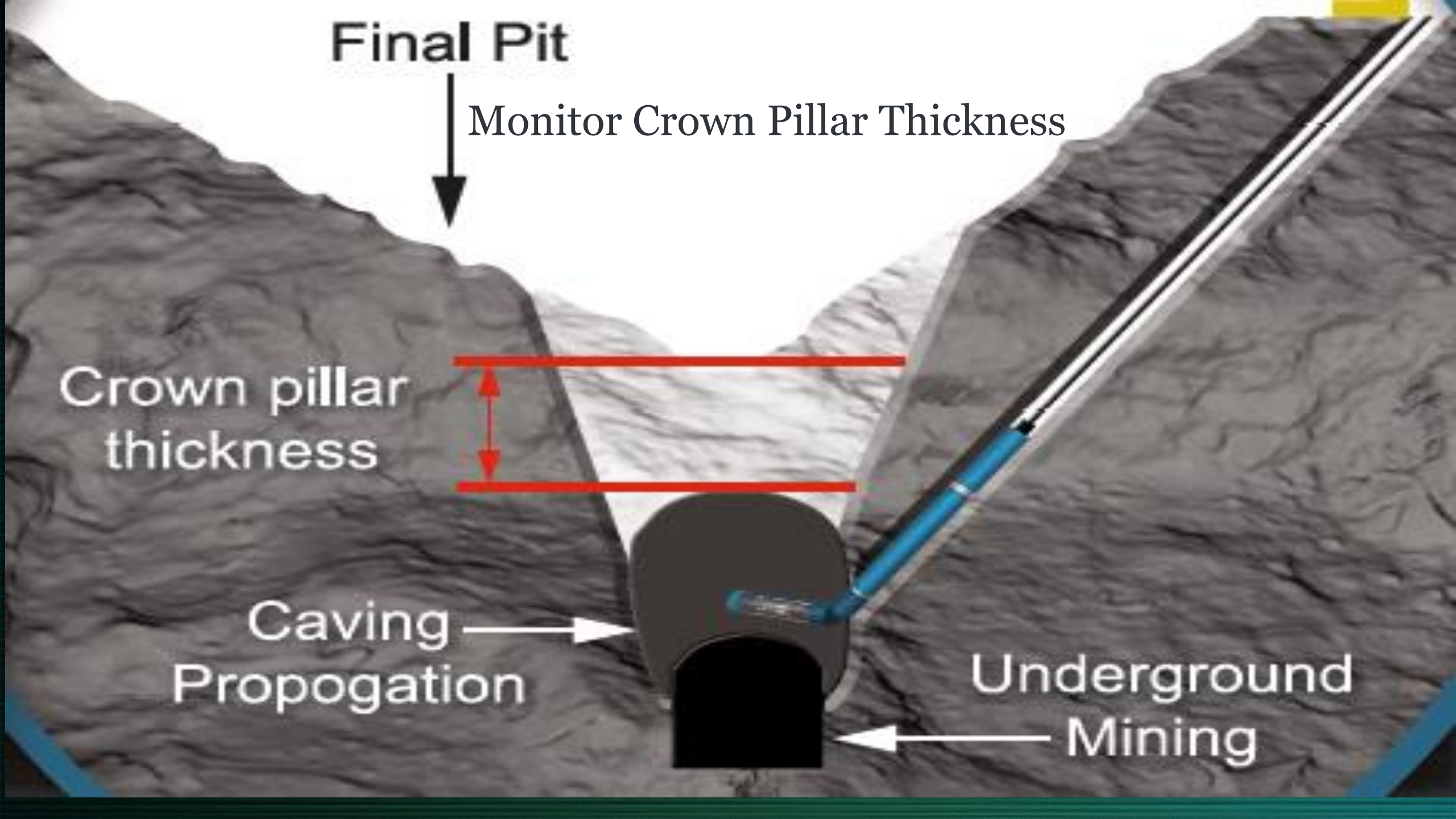
Final Pit

Monitor Crown Pillar Thickness

Crown pillar
thickness

Caving
Propogation

Underground
Mining



About BES

What makes BES different

- Cost
- Weight
- Rod-less
- Solid state 16° LIDAR
- Custom Inertial Measurement Unit (IMU) hardware and DR by GeoSight
- Custom Infilling AI software

Cost

- Under \$100,000 AUD

Weight/Power

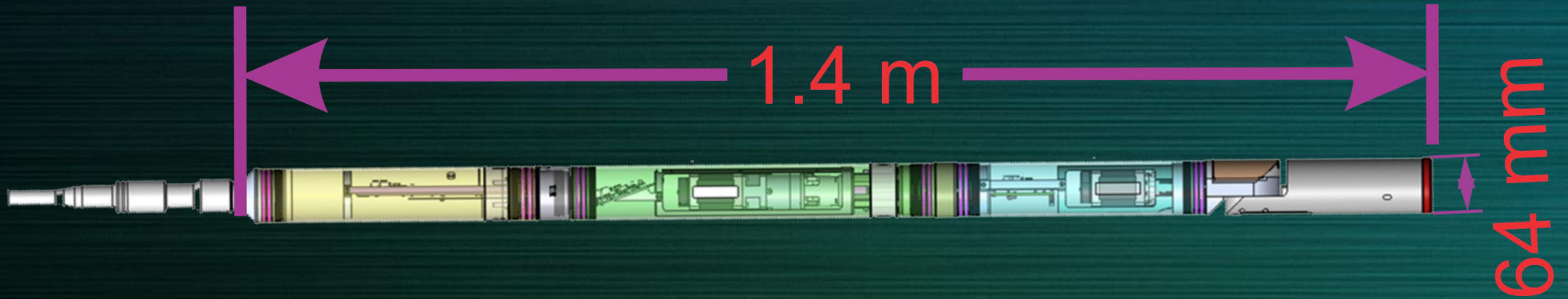
- Scanner weighs under 10 kg
- Winch with 50 m cable under 30 kg
- Power module under 2 kg
- 5 AH batteries
 1. Hot Swappable
 2. 3 hours scan time per charge
 3. Commercially available everywhere



Area that needs innovation

Scanning voids through boreholes

Small doesn't mean fragile



Easy to use and carry

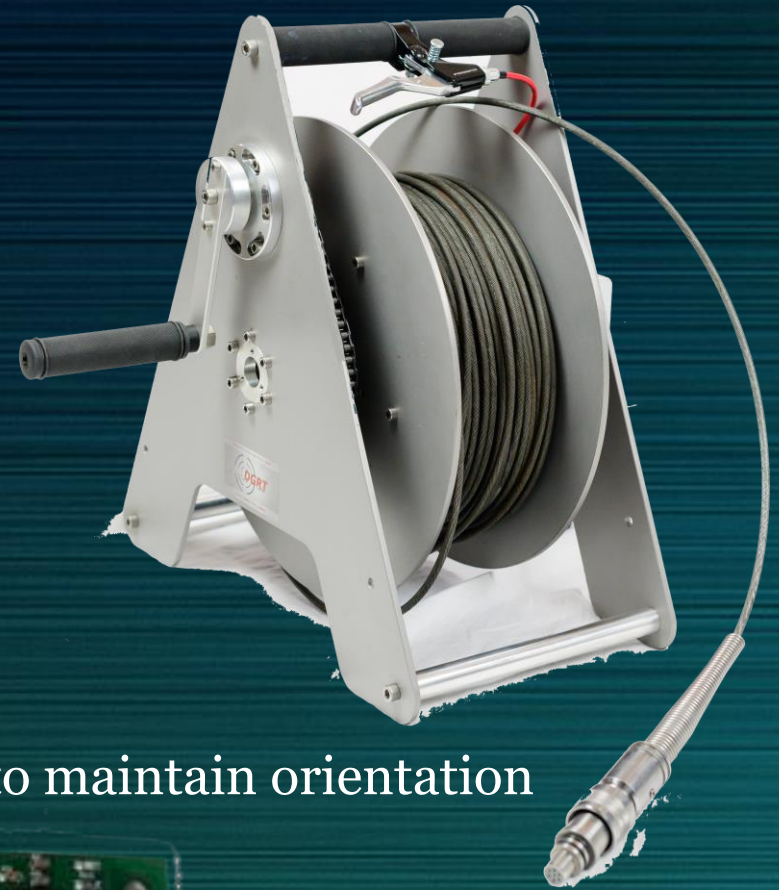
- Modular for easy transport and assembly



Deployment

No need for RODS

- Can lower on a cable
- Custom IMU hardware means there's no need to maintain orientation



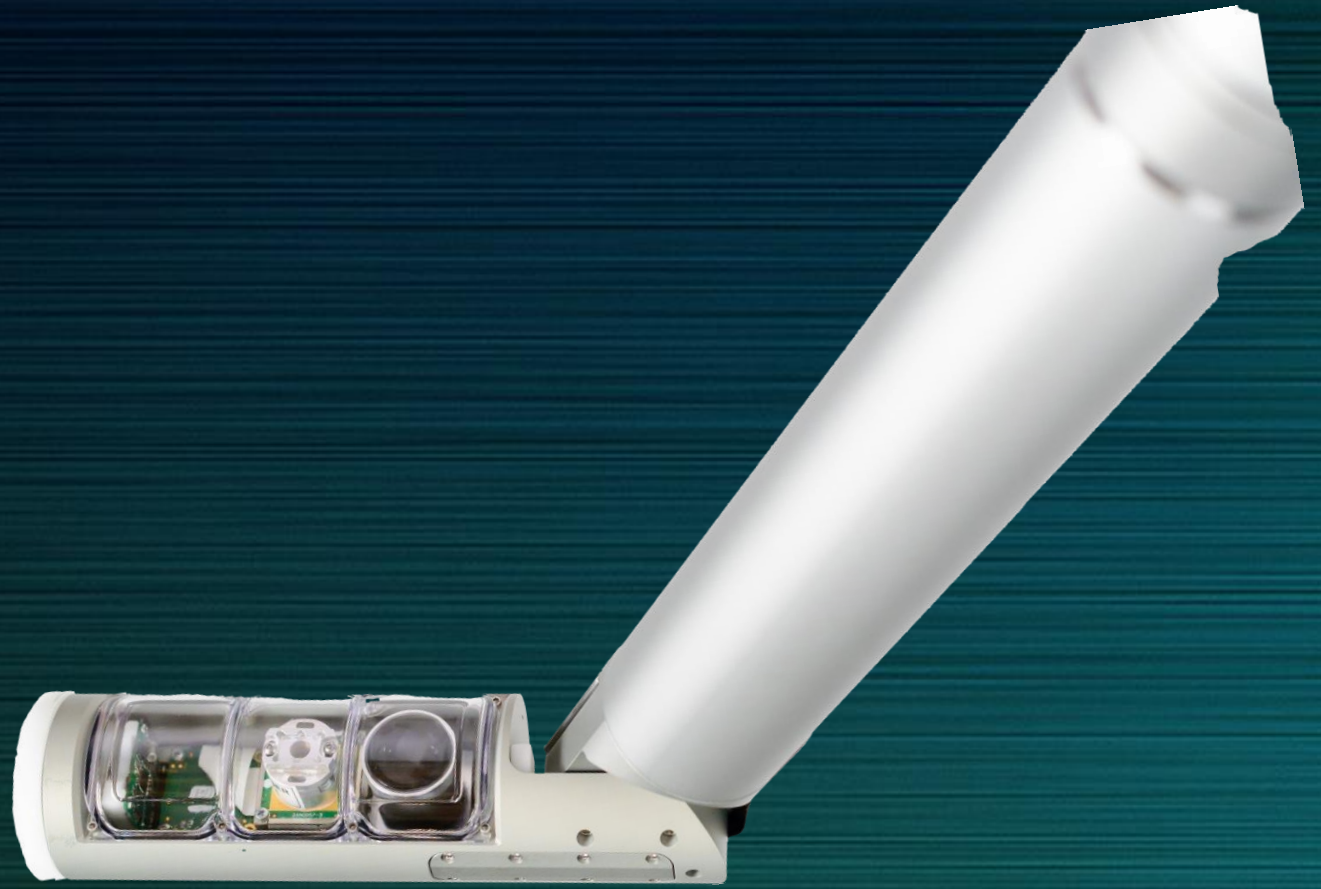
Custom IMU hardware

- GPS denied geo-referenced algorithm
- Custom IMU hardware for accuracy
 - 4 separate MEM's for pitch, yaw and roll
 - Mag assisted
 - Custom AI application to monitor and correct positional data
 - Depth encoder used to measure velocity
- Start and Return point correction



Solid State LIDAR

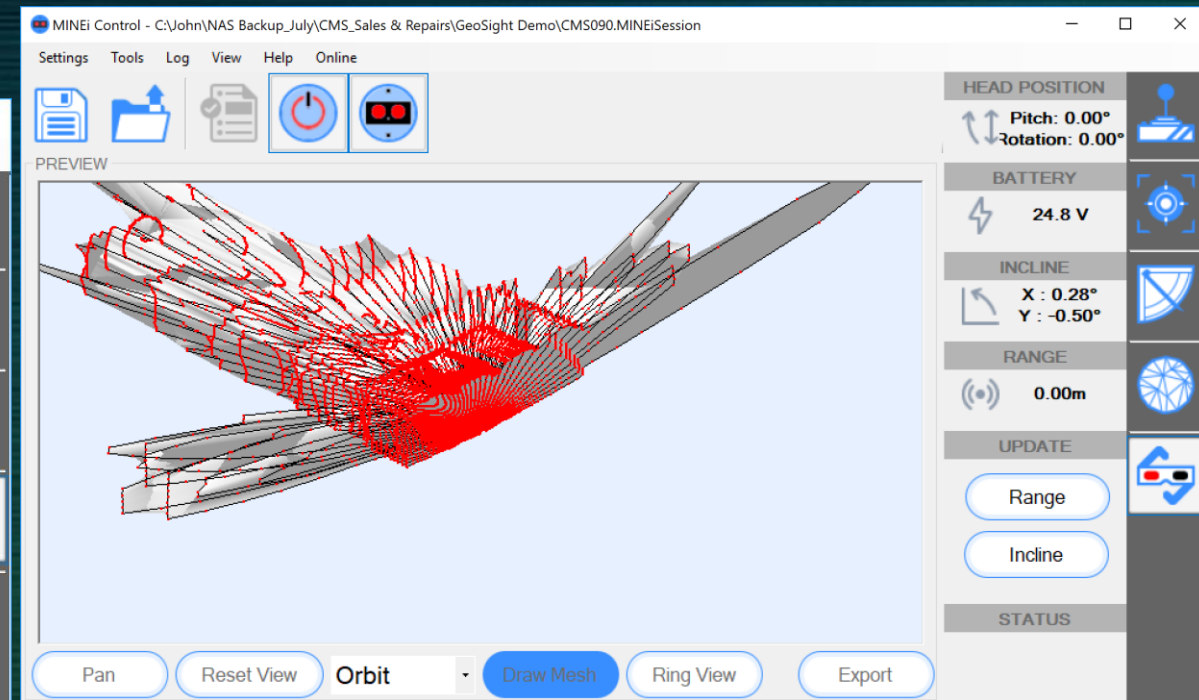
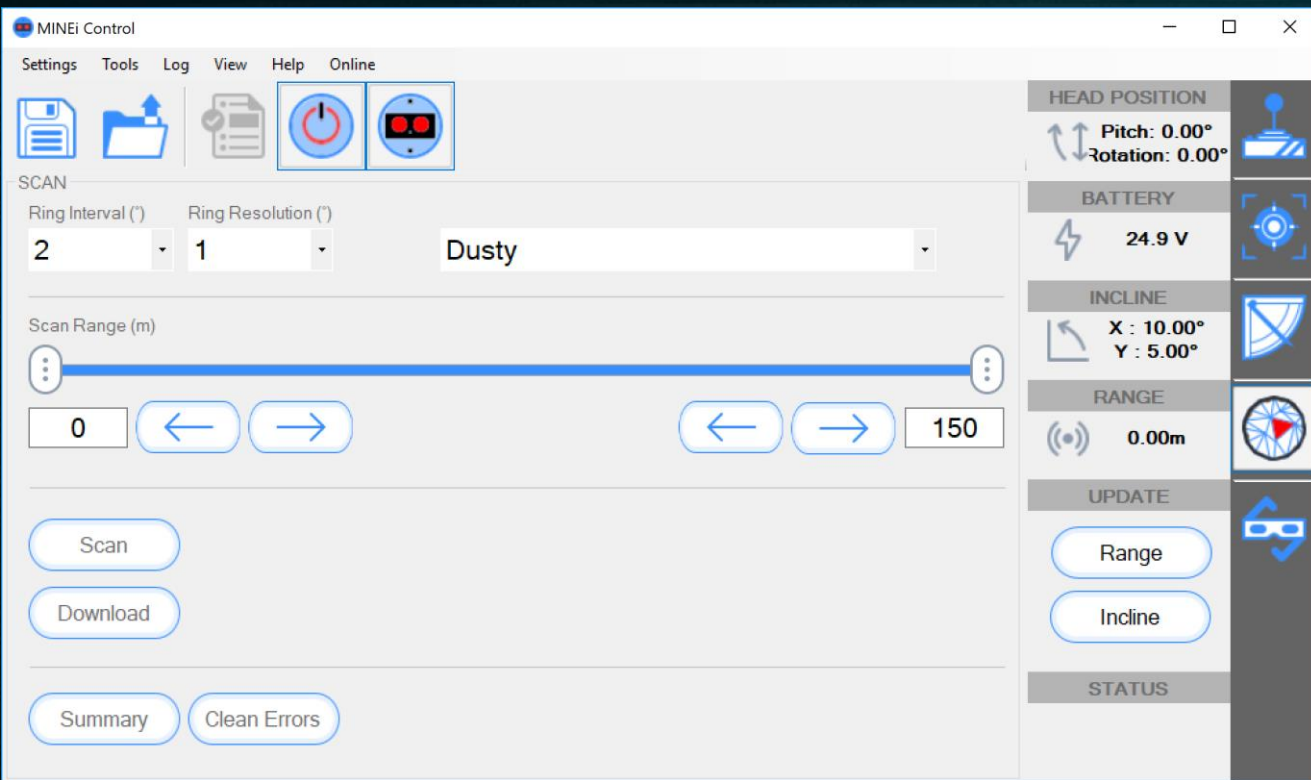
- Low cost
- FAST : 16 deg scan: 8 segments
- Rugged
- 100 m range
- 2 cm accuracy



LIDAR Specs

- Fast mode scan rate, 360° scan in 4 minutes
- Solid State: Outstanding robustness and no moving parts, no chance of sparks
- Rugged for harsh environment
- Rapid refresh rate of up to 100 Hz
- Spot size 3mR

Software

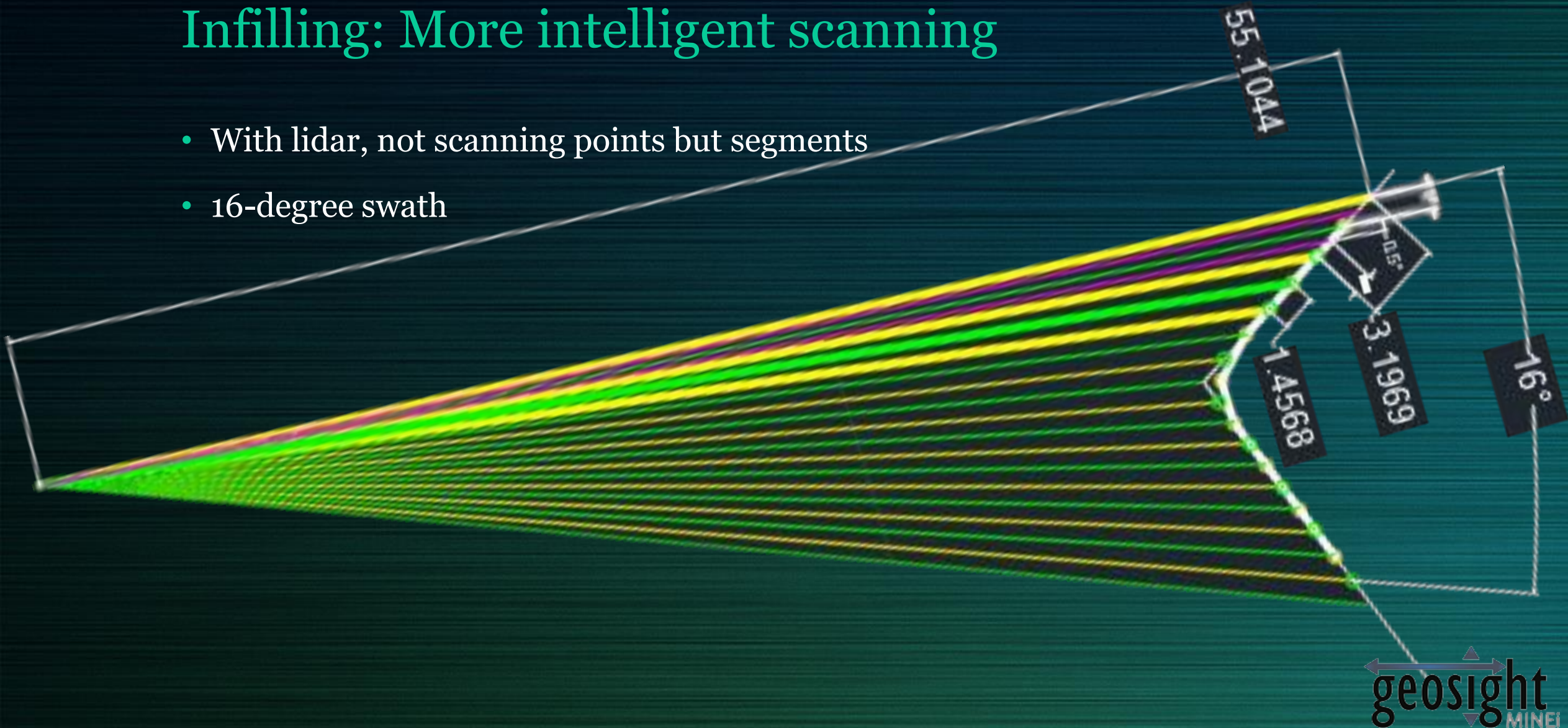


At 25 m typical infilling results for higher density

Distance	Angle	Coord Distance (m)	# of infills	
25	2.00	0.873	1	ORIGINAL
25	1.00	0.436	2	LOW
25	0.50	0.218	3	MEDIUM
25	0.25	0.109	4	HIGH

Infilling: More intelligent scanning

- With lidar, not scanning points but segments
- 16-degree swath



Support for Life of System

Warranty

- 30-day money back guarantee
- 1-Year warranty Bumper to Bumper
- Replacement loaner if anything goes wrong: free of charge
- You break it , we fix it! And we'll send you a loaner while it is being fixed

Maintenance

- After warranty follow up
- Just get our maintenance package and your unit will work for years to come
- Send it in once a year and get a free loaner while it is cleaned and calibrated
- Extended warranties available

Thank You

www.geosight.ca

www.geosight.com.au