

ELIOS 2

INTUITIVE INDOOR INSPECTION

PERFORM SAFE, FAST AND COST-EFFECTIVE INSPECTIONS

Elios 2 is the most intuitive, reliable, and precise indoor inspection drone. Keep your workforce out of harm's way while performing flawless inspections right from the first flight at a fraction of the cost of traditional methods.



FLYABILITY

A team of **93**

700 customers

Drones in the field: **1200**

50 resellers and commercial partners



Visual Inspections in Confined Spaces Are Known to Be Risky, Long, and Expensive — but They Don't Have To

98% of the costs attributed to
HSE and preparation.

— Shell —

4.8 million confined spaces entries, 11 thousands injuries,
100 deaths every year in the US alone.

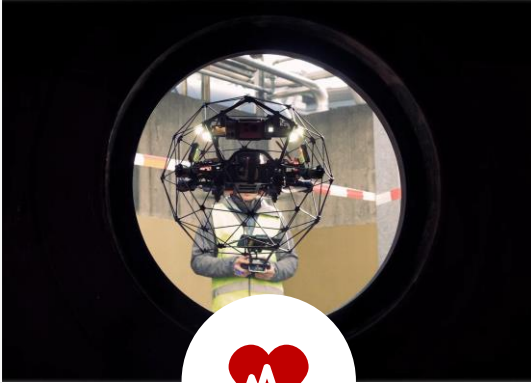
— OSHA —

Avoiding downtime can save us
0.5 M USD per inspection.

— Exelon —



Take the Guesswork Out of Your Maintenance Operations in a Safe, Fast, and Economical Way



IMPROVE SAFETY

Avoid confined spaces entry and work at height during visual inspections.



REDUCE DOWNTIMES

Turn days of asset downtime into hours.



LOWER COST

Save your financial resources for where they're really necessary.

Like You, We Want Visual Inspections to Be
a Safe, Fast, and Economical Routine

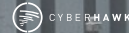
THEY'RE TRUSTING OUR PRODUCTS
FOR THEIR VISUAL INSPECTION WORK



ArcelorMittal



Cargill



enel



ExxonMobil



السعودية
Saudi Aramco



TVA



Unlike Other Drones, Elios 2 Is Designed Specifically for Inspections in Confined Spaces

DESIGNED FOR INDOOR

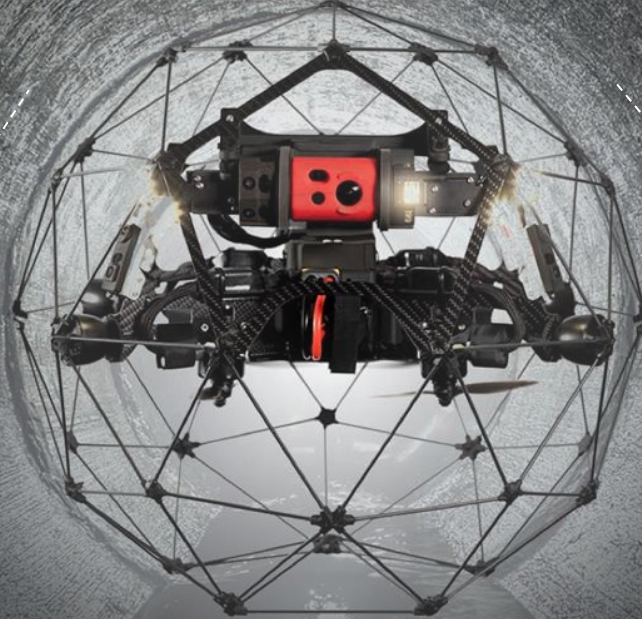
- Collision-resilient
- Shockproof payload
- Confined space accessibility
- Signal strength

INTUITIVE TO FLY

- GPS-free stabilization
- High definition live streaming
- Distance lock

BUILT FOR SUCCESS

- Easy maintenance
- Introductory training
- Dedicated support team



DATA QUALITY

- Obstruction free
- Close up inspection
- 4k Camera
- Thermal camera
- 180° tiltable camera pod
- 10K lumen adjustable lighting
- Dustproof lighting
- Oblique lighting

DATA PROCESSING

- Streamlined data management
- Close-up 3D model
- 2D measurement

Make Sense Of Your Elios Drones' Data In An Actionable Way



Visualize

An inspection takes place during and after you fly your drone. Our video player lets you review your asset frame by frame and bookmark what's of interest.



Localize

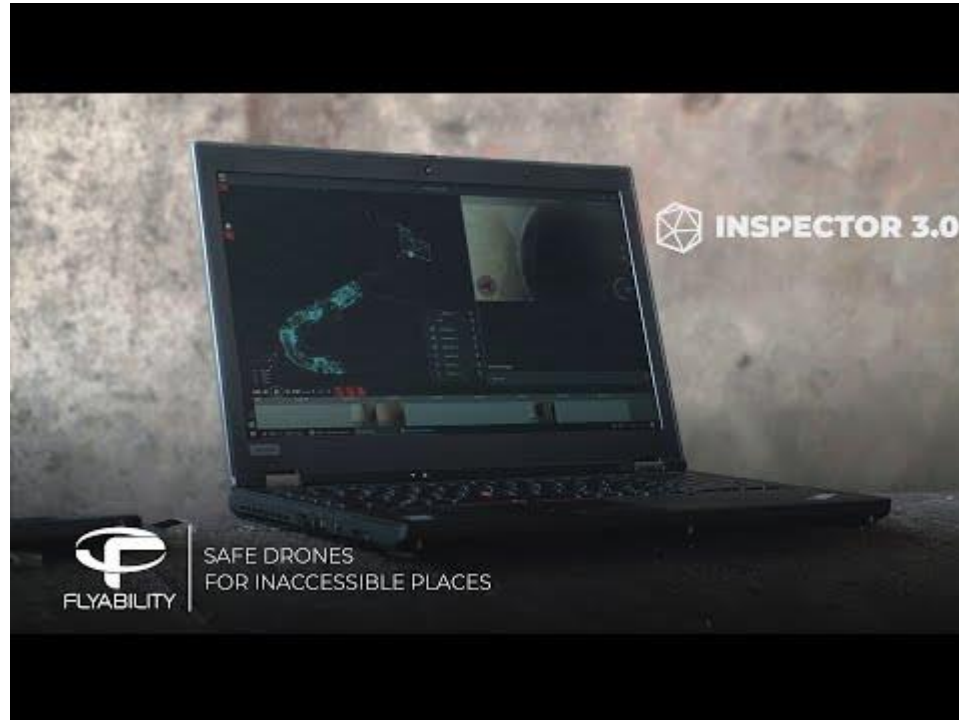
Your inspection data is mapped into a sparse 3D model of your asset so you'll always know where your points of interest belong.



Document

Points of interest can be documented, classified, measured, adjusted, overlaid with thermal data, and all of this can be easily packed into a report.

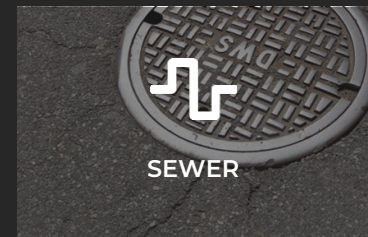
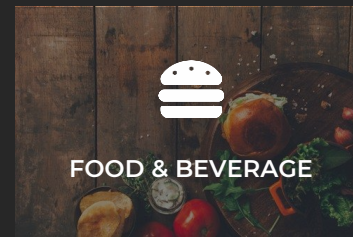
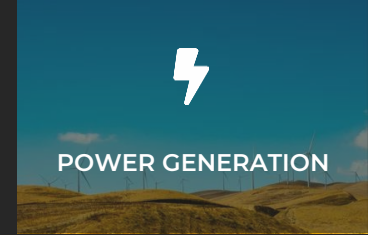
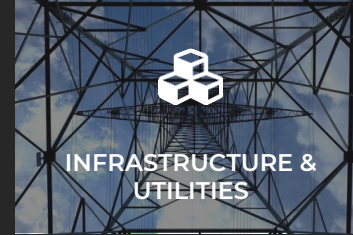
Discover How Inspector 3.0 Will Change How You Look At Your Data—in Just One Minute





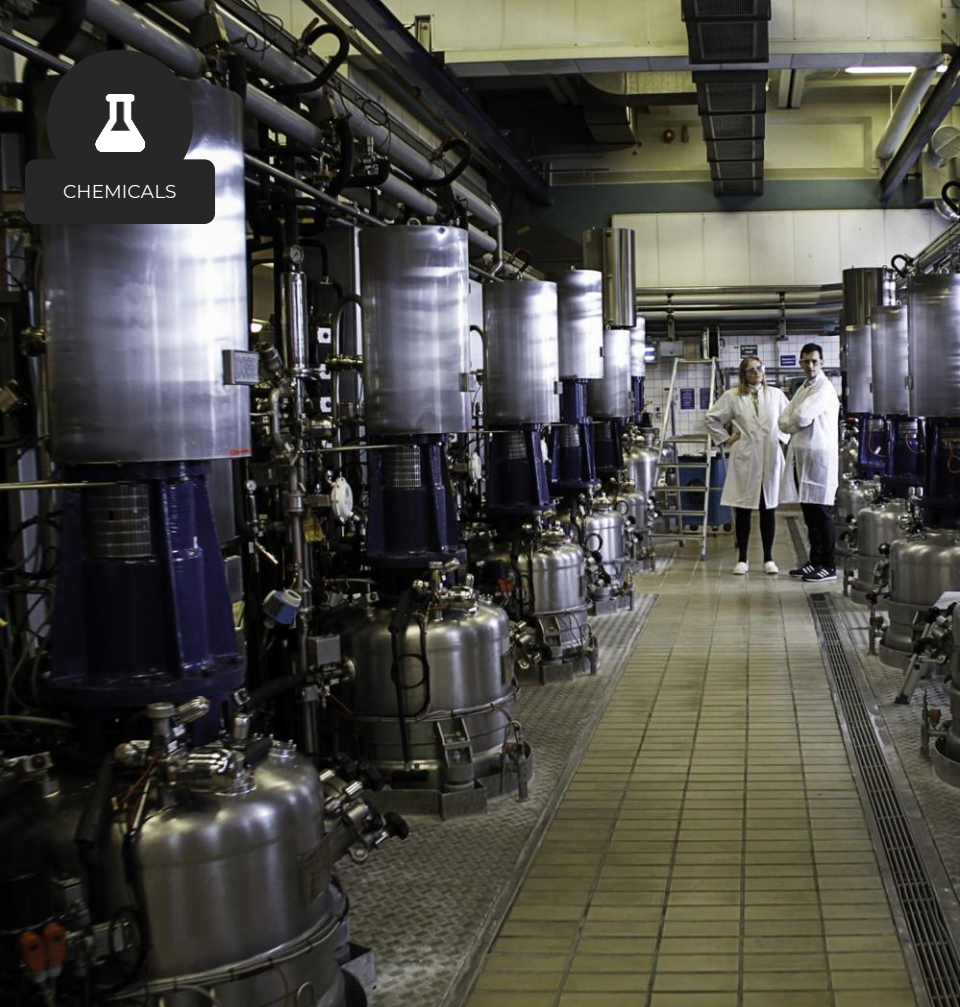
CASE STUDIES

**Proven Track Record in
Multiple Industries
with Service Providers
and Asset Owners**





CHEMICALS



Inspection of Enzymes Fermenter Tanks

OBJECTIVES

Assess cleanliness of the dome and the dosing legs. Check integrity of the agitator shaft and blades, line of vertical bolts on the four baffles, and of the pedestal at the bottom after each production batch (every 7 to 10 days).

MAIN OUTCOMES



No man entry in confined spaces



10 minutes vs several hours



Cost per inspection allowing to multiply by 10 the rate of inspection



No risk of pollution due to man entry

[READ THE CASE STUDY](#)

Example video (Takeda)



Pharmaceutical tanks ([video](#) here – full case study [here](#))



POWER
GENERATION



Inspection of Power Plant Scrubber

OBJECTIVES

Inspect spray headers inside scrubbers used at the Cumberland Fossil Plant, a power generation plant owned by the Tennessee Valley Authority (TVA).

MAIN OUTCOMES



No manned entry in confined spaces or standing on scaffolding at 24 meters in the air



10 hours v. 480 hours (98% time reduction)



Increased frequency of inspections due to lower cost, improved speed, and increased ease of inspection process

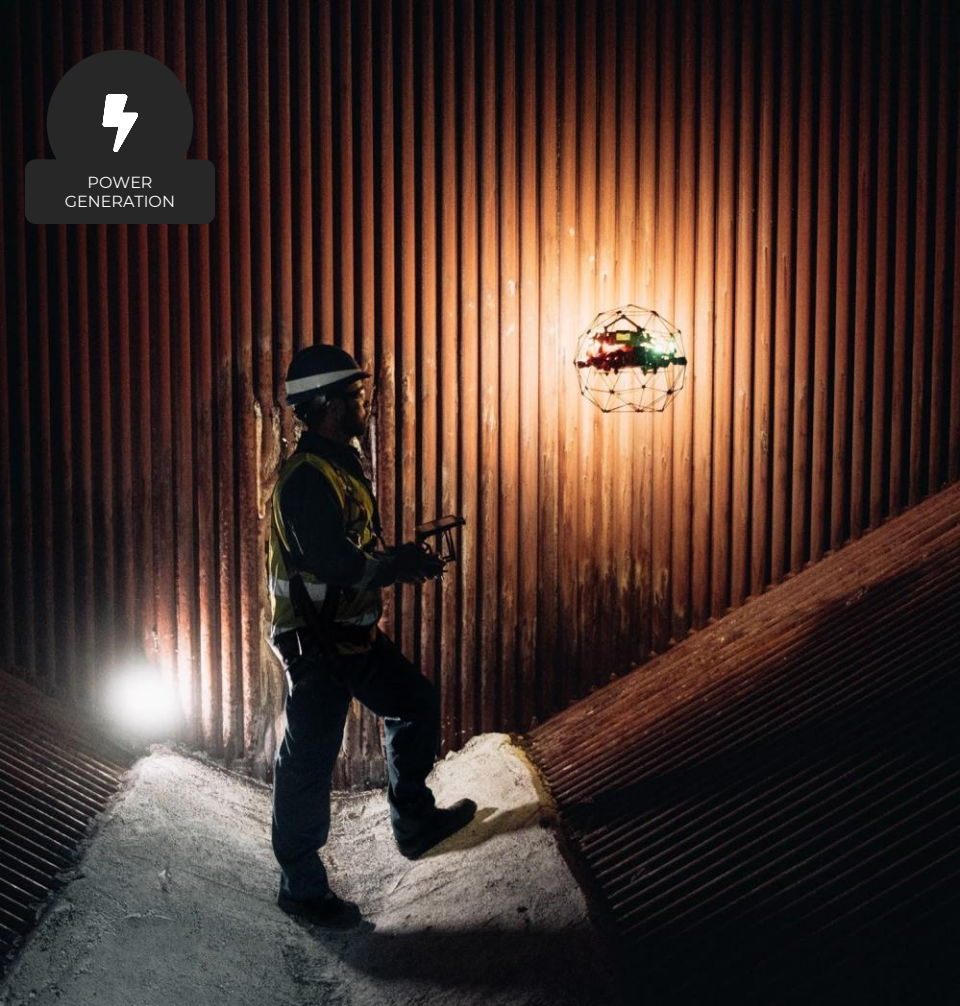
[READ THE CASE STUDY](#)

Example video





POWER
GENERATION



Inspection of Power Plant Boilers

OBJECTIVES

Inspect burners and other areas inside two huge industrial boilers at a power plant owned by Pampa Energía in Bahía Blanca, Argentina.

MAIN OUTCOMES



No manned entry in confined spaces or standing on scaffolding at dangerous heights



20 minutes vs. a full day of work



\$420,000 U.S. saved in a single test flight

[READ THE CASE STUDY](#)

Example video





POWER
GENERATION

Inspection of Power Plant Chimney and Boiler

OBJECTIVES

Inspect a 180-meter tall chimney and a boiler at a power plant owned by DTEK in the Ukraine.

MAIN OUTCOMES



No manned entry in confined spaces, rope access, or standing on scaffolding at dangerous heights



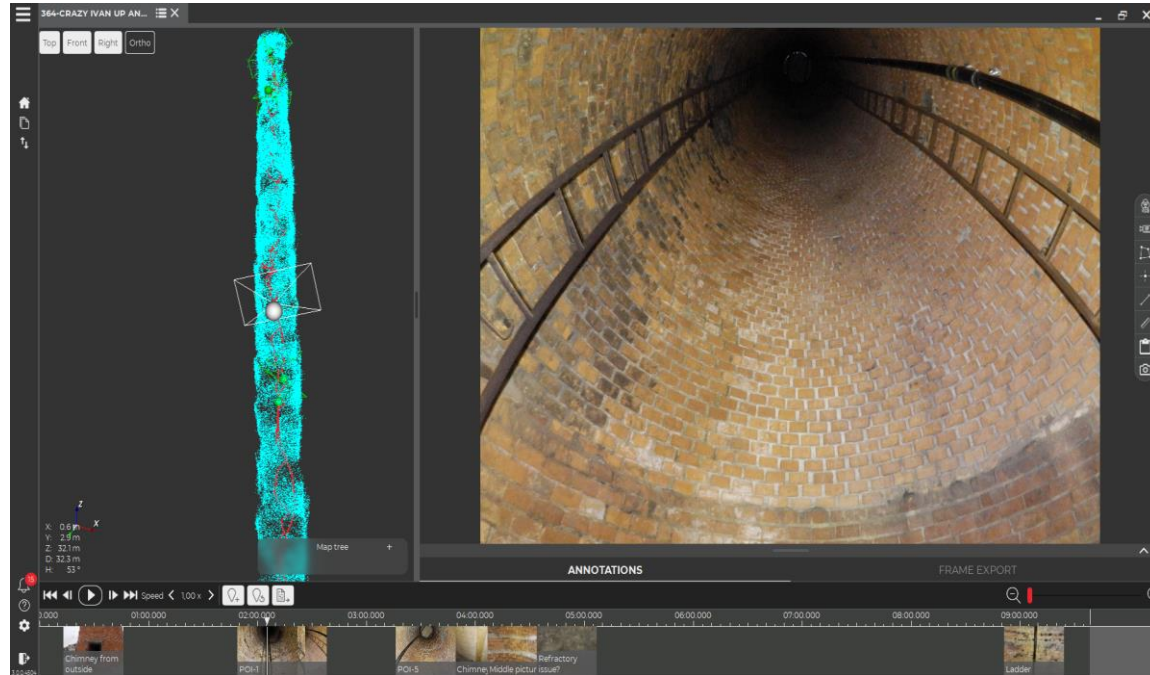
Inspection time significantly reduced



\$50,000 in savings for each inspection

[READ THE CASE STUDY](#)

Example video





AGGREGATES

Indoor Stockpile Volumetry for Metallic Dust Storage and Recycling

OBJECTIVES

Map indoor stockpile volumetry using 3D reconstruction with visual data collected indoors by the Elios 2 to determine amount of materials on site at a plant that stores and recycles metallic and other industrial dust.

MAIN OUTCOMES



Indoor stockpile volumetry helped ensure legal compliance for the amount of materials that could be stored in one place.



Increasing the frequency of data capture allowed for regular measurements of the stockpiles, improving processes overall.



Precise volumetric data on the amount of dust present allowed the company to improve revenue by staying at capacity at all times.

[READ THE CASE STUDY](#)



OIL & GAS



Inspection of Oil Depot Diesel Tank

OBJECTIVES

Inspect a 20-meter high diesel tank used to store oil at an oil depot located in Geneva, Switzerland.

MAIN OUTCOMES



No manned entry in confined spaces or standing on scaffolding at dangerous heights



Four hours vs. two weeks

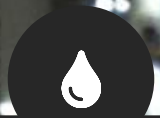


\$35,000 saved per inspection / 96% overall cost reduction for each inspection

[READ THE CASE STUDY](#)

Example video





OIL & GAS

Inspection of Oil Refinery FCC Unit

OBJECTIVES

Inspect an FCC (Fluid Catalytic Cracking) unit at the Izmit Refinery in Turkey. The refinery is owned by Tüpraş, the largest energy company in the country.

MAIN OUTCOMES



No manned entry or rope access in confined spaces



2.5 days of work saved using the Elios



Hundreds of thousands saved by shortening the downtime needed for the inspection

[READ THE CASE STUDY](#)



MARITIME

Inspection of Oil Cargo Tank

OBJECTIVES

Inspect a crack discovered in a cargo tank used to store oil on a crude oil tanker to assess the extent of damage, as well as inspecting other areas of the tank to identify potential maintenance issues.

MAIN OUTCOMES



No manned entry in confined spaces or standing on scaffolding at dangerous heights



Two days vs. 10 days



\$2 million U.S. saved using the Elios 2 instead of manual inspection methods

[READ THE CASE STUDY](#)



FOOD &
BEVERAGE



Inspection of Commercial Grain Bin

OBJECTIVES

Inspect a grain bin to identify any potential defects or flaws that could impact the life of the grain or the structure of the bin itself.

MAIN OUTCOMES



No manned entry in confined spaces or need to enter dangerous area inside the grain bin



Less than one day vs. seven days



\$9,000 saved per inspection / 95% overall cost reduction for each inspection

[READ THE CASE STUDY](#)



Waste water inspections by Suez RV Osis

OBJECTIVES

In order to fulfill the cities' urgent contracts in France, Suez RV Osis need to inspect very hard-to-reach and unsafe underground areas, collect high quality information about the state of the infrastructure, as well as the precise localization of defaults or sludge.

MAIN OUTCOMES



Dangerous access (Water level, H2S gas, Slippery floors, Risk of Structure collapse) or simply inaccessible with traditional means



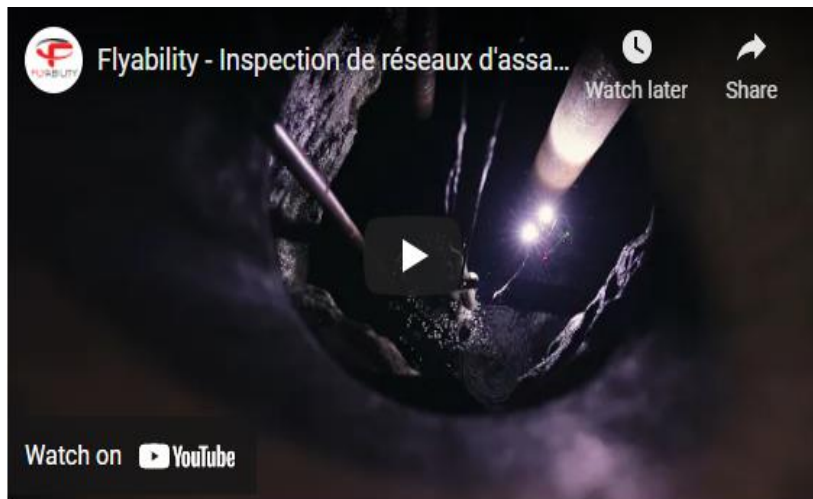
Time gain of 100% : 900 linear meters per day, vs. 400 meters with humans or CCTV Cameras



Cost of inspection is approximately 40% less (no need for cleaning machine, reduced staff)



High quality data and data localisation, in line with regulation



[READ THE CASE STUDY](#)



POWER
GENERATION

Wind turbine internal inspection

OBJECTIVES

Inspect the inside of the wind turbine pillar and blades to detect potential defects, most of the time caused by lightning and bad weather conditions.

MAIN OUTCOMES



No manned entry in confined spaces at height



1.5 hours instead of 8 hours, no rotor rotation needed

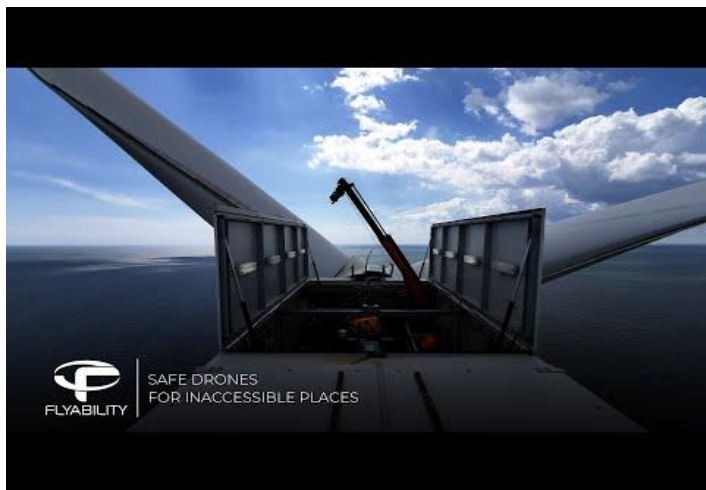


Significant reduction of personnel need (2 people instead of 4)



High quality data and further access inside the blade

[READ THE CASE STUDY](#)



Short video



3D Model

Photogrammetry

Give a New Dimension to Your Data



ORGANIZING
YOUR DATA



MAKING
MEASUREMENTS



TRACKING CHANGES



CHECKING THE SHAPE AND
CONDITIONS OF STRUCTURES



PHOTOGRAMMETRY MODELS



Chimney



Pressure vessel



Cracker riser

ELIOS 2

INTUITIVE INDOOR INSPECTION

Thank you!

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