



YellowScan

Designed to Innovate.

SUCCESS STORY

Mining



UAV USED
DJI M600



SOLUTION
Mapper II

“

The YellowScan Mapper II is an invaluable tool to characterize the geometry of stockpiles [and] access the potential value of raw materials waste.

Robert Zimmermann, Helmholtz Institute for Resource Technology in Freiberg, Germany And INFACT Scientific Coordinator

Business need.

The EU's mining research project INFACT develops innovative, non-invasive and fully-acceptable exploration technology in the field of raw materials extraction.

The need was to obtain topographic mapping in areas with low and/or sparse vegetation (e.g., tailings, mine sites) where photogrammetry failed to deliver good results.

At one of the mining sites chosen by INFACT's research team at Corta Atalaya, Rio Tinto, Spain, the mission was to map tailings to get a precise Digital Surface Model and do Volume Calculations.

Solution.

YellowScan Mapper II provides a 3D topographical view, identifying areas under canopy, or in between canopy. It also helps to improve and correct data from other sensors, including magnetics and photogrammetry.

INFACT

Company: INFACT
Website: www.infactproject.eu
Country: Freiberg, Germany



SUCCESS STORY

Results

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Acquisition.

12 flights surveyed nearly 75 hectares in 1.5 days using the Mapper II on a DJI M600 with a Trimble R10 base station.

Results.

28.4 points/m²; accuracy ~ ±10cm; scrub vegetation can be easily filtered out, precise reconstruction of the slopes

Benefits.

- **Data Acquisition speed:** 1.5 days of flying VS a ground team out for 2 weeks
- **Safety:** A clear advantage with less people in the field
- **Hard to access zones become accessible:** Survey area was a rocky tailing from the mid-1940s-1950s, steep slopes, hard to walk on, but LiDAR accessible



YellowScan Mapper II on a DJI M600

Mission parameters.

- Number of flights: 12
- Survey size: 75 hectares in 1 day
- Flight speed: 5 m/s
- Flight altitude: 40 m AGL



Rio Tinto, Corta Atalaya copper mine in Andalusia, Spain