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塑造智慧变革

Laser Scanning – Capture Today for Preparing Tomorrow

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Agenda

- 1. Leica Geosystems Reality Capture Solutions
 - a) Overview
- 2. Terrestrial Laser Scanning
 - a) Challenge
 - b) Technology
 - c) Applications
- 3. General Solution Categories
 - a) Hardware
 - b) Software
 - i. Field
 - ii. Office
- 4. Leica Solution Summary





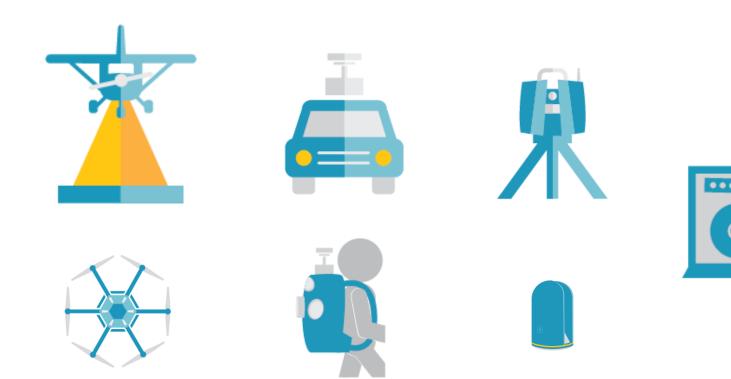
Leica Reality Capture Solutions

Overview





Leica Reality Capture Solutions





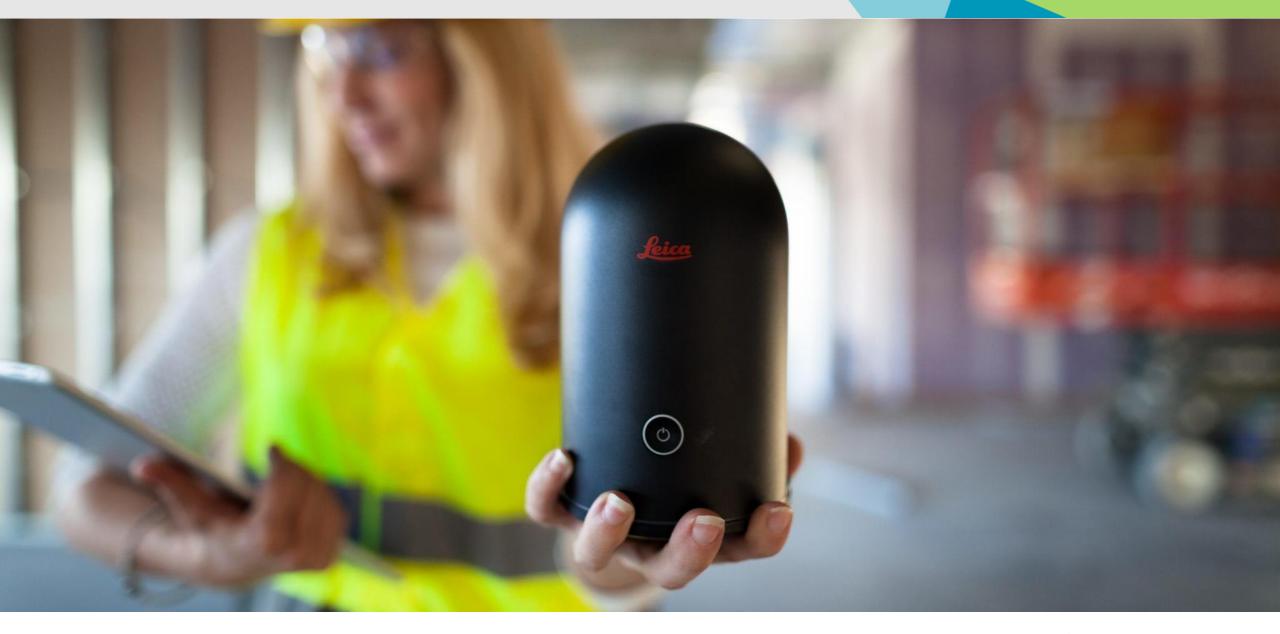
Terrestrial Laser Scanning

Is it mainstream?



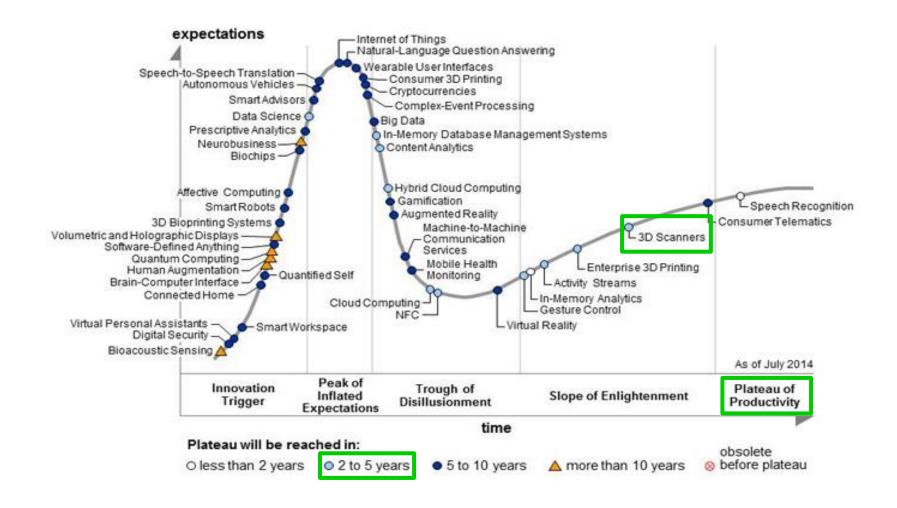






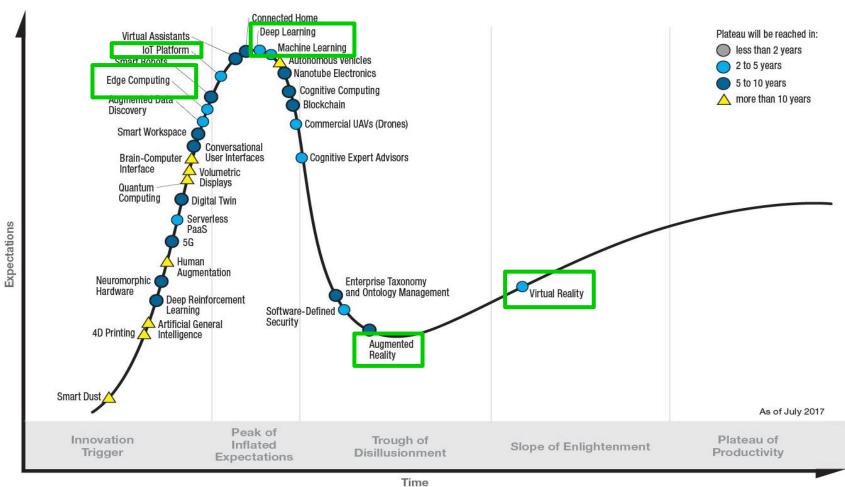


Gartner Technology Cycle 2015



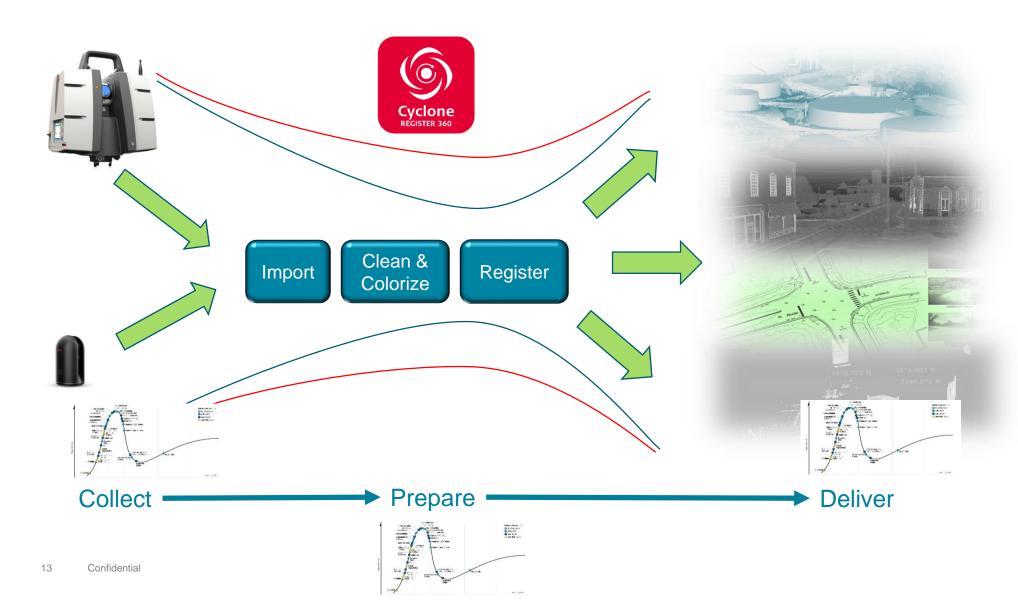


Gartner technology Cycle 2017





Scanning Work Flow – "Path to Money"



3D

- Models
- Meshing
- BIM

2 ½ D

- Mesh / TIN
- TruView
- Fly-Though

2D

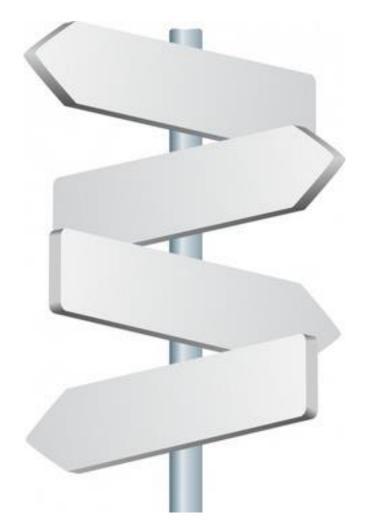
- Planimetrics
- Ortho Images
- Cross Sections

1D

- Coordinate lists
- Measurements



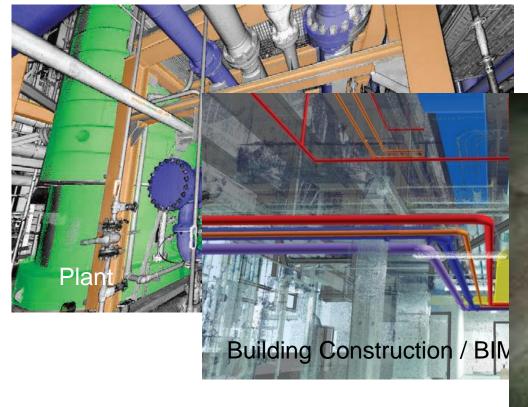
Laser Scanning - where does it go?



...pretty much everywhere



«Classic» applications for terrestrial laser scaning





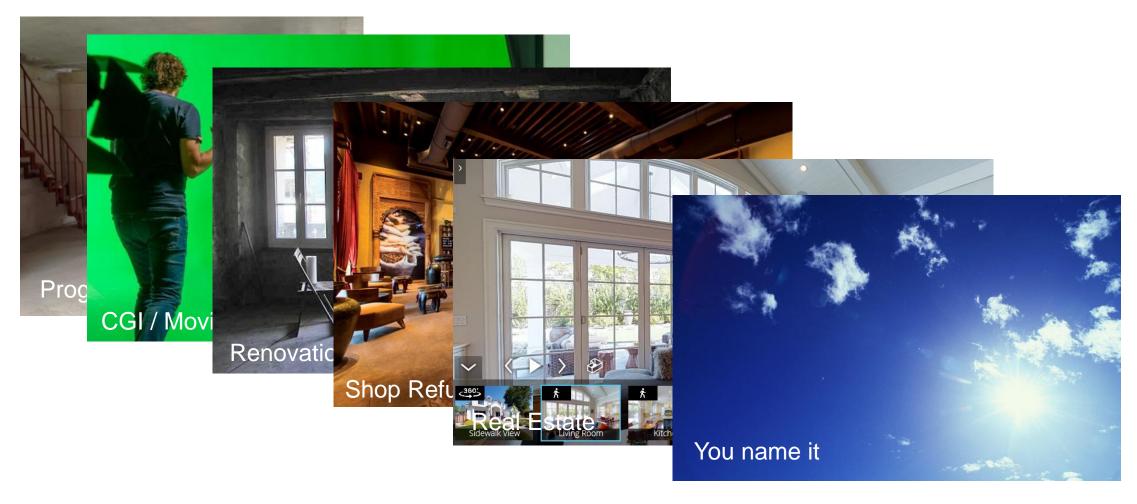


Terrestrial laser scaning for «surveying» applications



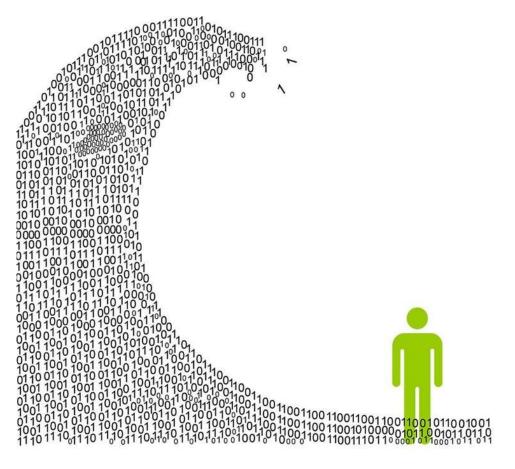


...but there is more





Where does it go? - «Point Clouds for all people»



- Ease of use & accessability drives adoption of 3D reality capture in general
- It tends to also create the impression that all sensors are the same
- 3D Laserscanners will fall more and more into two distinct categories
 - «Surveying» Scanners
 - Scanners for «3D Documentation»



Solution Categories

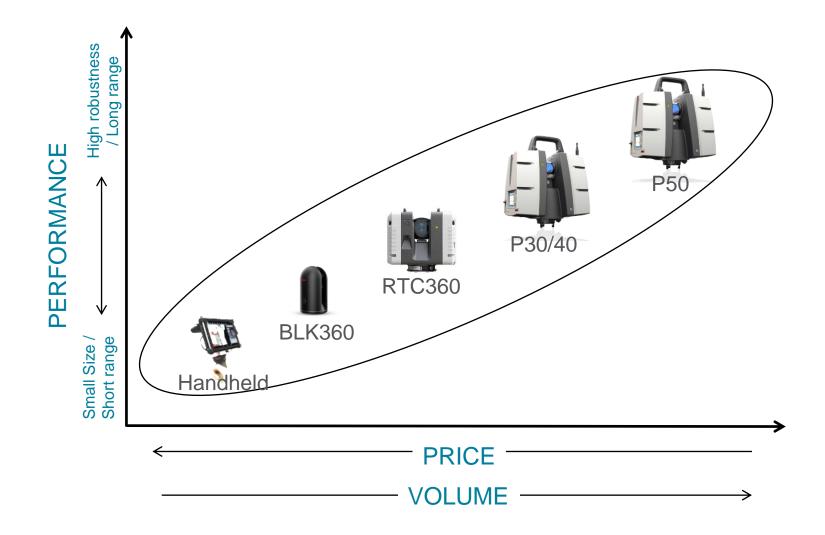
trying to get structure into the world of laser scanners



Terrestrial Laser Scanners today

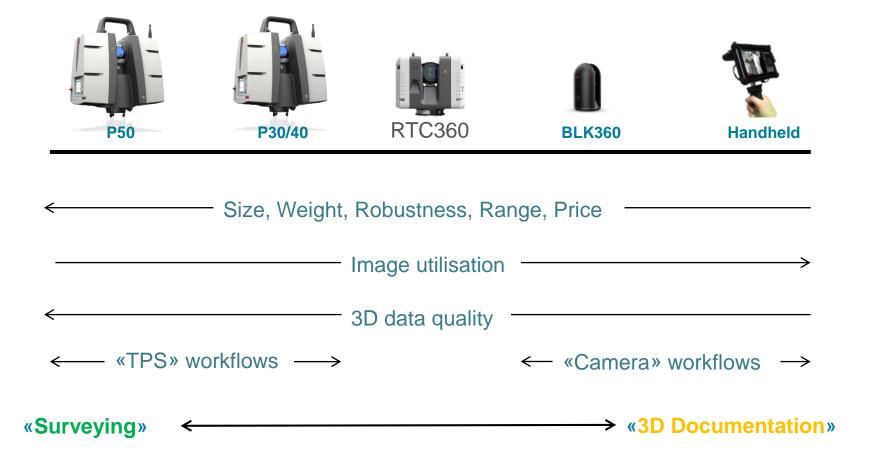


Terrestrial Laser Scanning – Product Categories



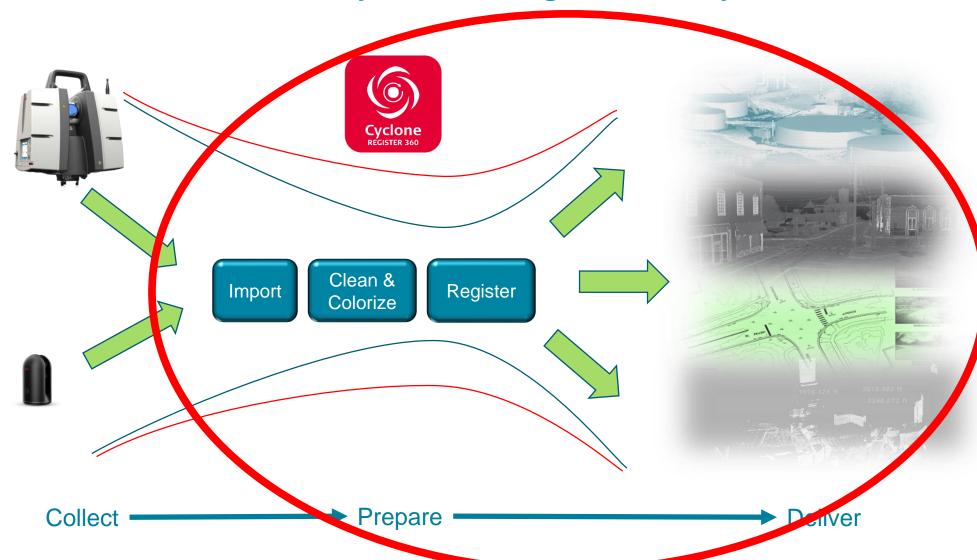


Terrestrial Laser Scanning – Product Categories





Reminder: Software is Key for Scanning Productivity



3D

- Models
- Meshing
- BIM

2 ½ D

- Mesh / TIN
- TruView
- Fly-Though

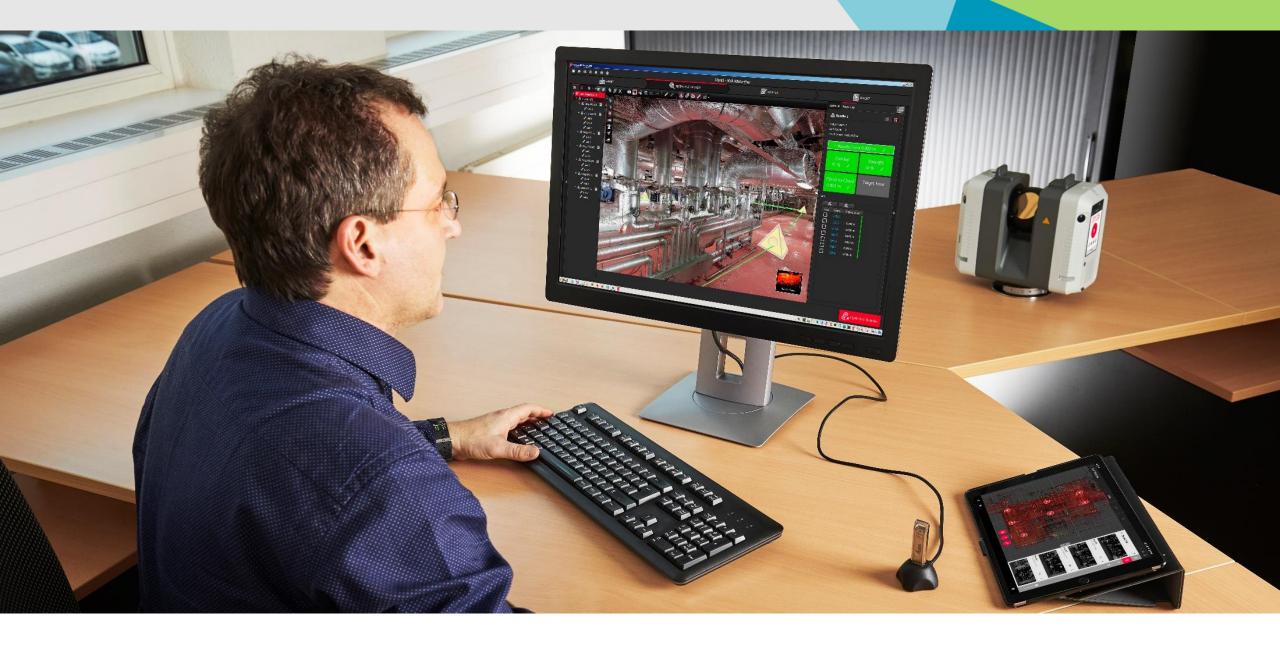
2D

- Planimetrics
- Ortho Images
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1D

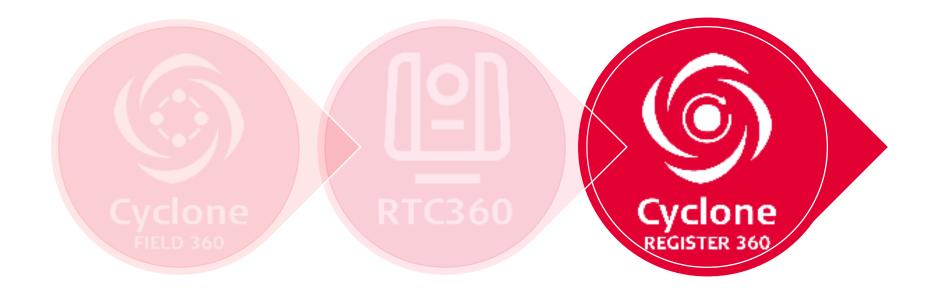
- Coordinate lists
- Measurements







Example: Cyclone Register360





Leica RTC360 Solution – Cyclone REGISTER 360



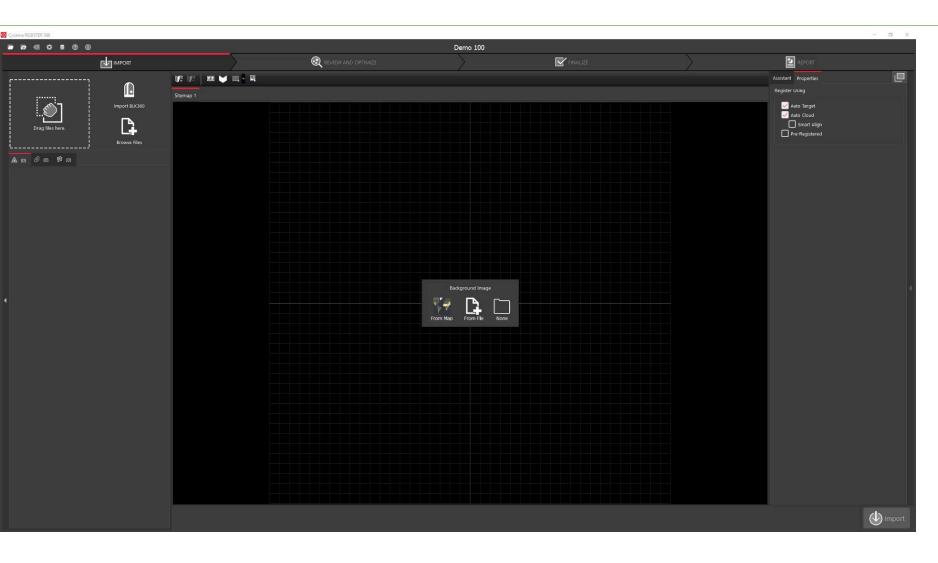


- DRAG
- DROP
- DONE











Solution Example: RTC360 «SmartReg» Workflow







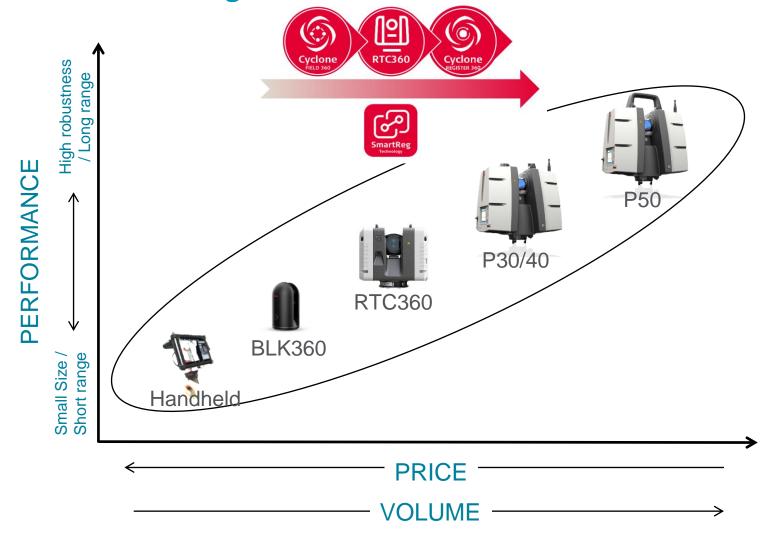
Leica Geosystems Terrestrial Laser Scanning

Solution Overview

A choice of solutions optimized for your special jobs



Terrestrial Laser Scanning – Product Categories

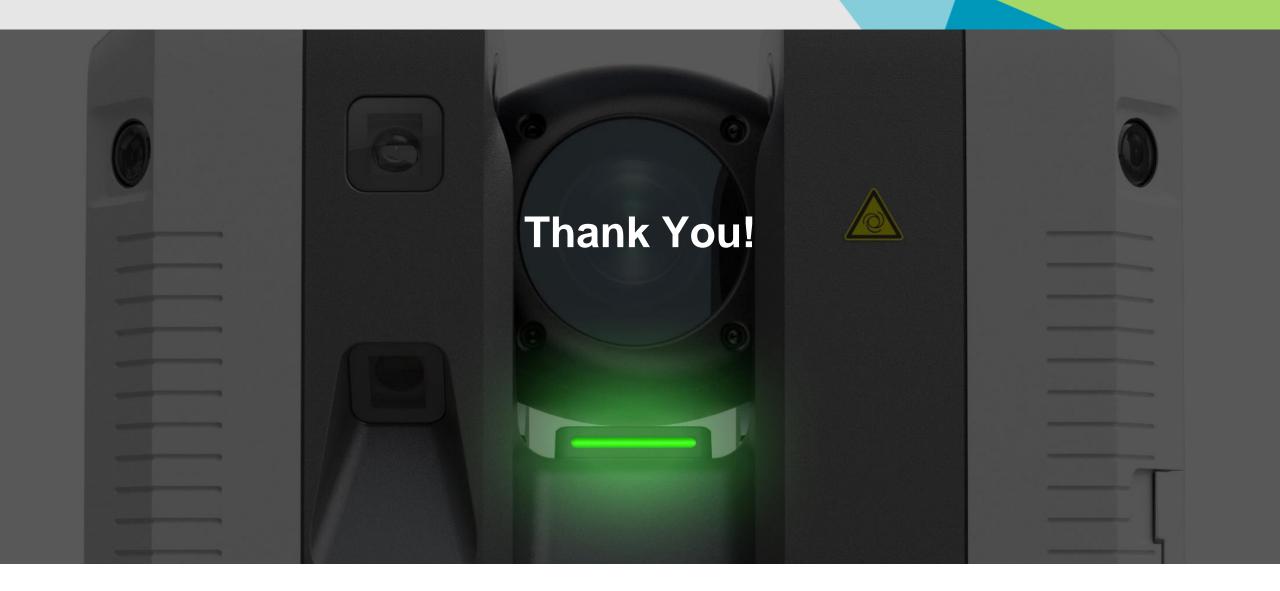




Terrestrial Laser Scanning – The right Tools for the right Jobs









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