

**UNDERSTAND THE
WORLD AROUND YOU**

About Us

Our goal is to integrate spatial information into industrial processes, making them more effective and accountable.

How we Started

Caroni started when we saw the potential of SLAM (Simultaneous Localisation And Mapping) technology and how it can add value to different stakeholders and industries, and how we can offer immediate solutions through combining easy capture and advanced processing and analysis software.

We have expanded our purpose to include those

who need more visual imagery tools to add value, maintaining the ease of data capturing and advanced processing and analysis.

Our goal is to integrate spatial information into industrial processes, making them more effective and accountable.



Our Solutions

We have partnered with other great companies to provide the best solutions to our stakeholders



There is a growing demand for accurate and up to date 3D models, from surveyors and other professionals such as facilities managers and architects. The demands are even greater in areas with limited GPS coverage and/or difficult access such as inside buildings, and in caves, mines and forests. And for many, mapping the space is time critical.

Considering this, they need tools that enable them to survey an indoor, underground or difficult to access space and within minutes build a highly accurate 3D model, and at the same time, with a user- friendly technology that is easy to install and use, and robust and reliable enough to do the job quickly and accurately.

Geoslam offers robust, easy-to-use solutions that captures and models complex 3D data up to 10 times faster, such as compact, handheld scanners which are highly mobile, simple to operate and can be used by anyone (Geoslam, 2019). Geoslam achieves this by using Lidar sensors, also known as laser scanners.



Imaging in mobile mapping was supplementary data used mostly for pointcloud colourisation. As technology evolves and systems improve, panoramic pictures gain relevance, not only as supplement but as a powerful tool on its own.

Starting from local governments, to infrastructure, mining and utilities companies, panoramic imagery provides complete coverage and detailed information of a site for many applications: asset management, change detection, advance tracking, deformation analysis.

For these applications and users, NCTech have developed iSTAR Pulsar+ panoramic camera, technology developed in collaboration with Google, Intel and Sony.

Construction

Deliver crucial site information to your teams quickly and easily. Automatically generate clear progress reports with visualisations that show you the build progress made on site:

- 1 Track and record progress against a 3D model or a previous scan to improve efficiency, save money, create unbiased progress reports and provide valuable data to help resolve any disputes that may arise.
- 2 Automated project progress with transparent, easy to understand, shareable PDF reports
- 3 Automated file storage compatible with industry collaboration platforms so the full project team and stakeholders can access progress reports anytime.
- 4 See construction progress through the life cycle of a project, helping reporting, avoiding disputes and delay penalties.
- 5 Quickly and easily share project progress updates ensuring full transparency contractors, collect data when you need it.

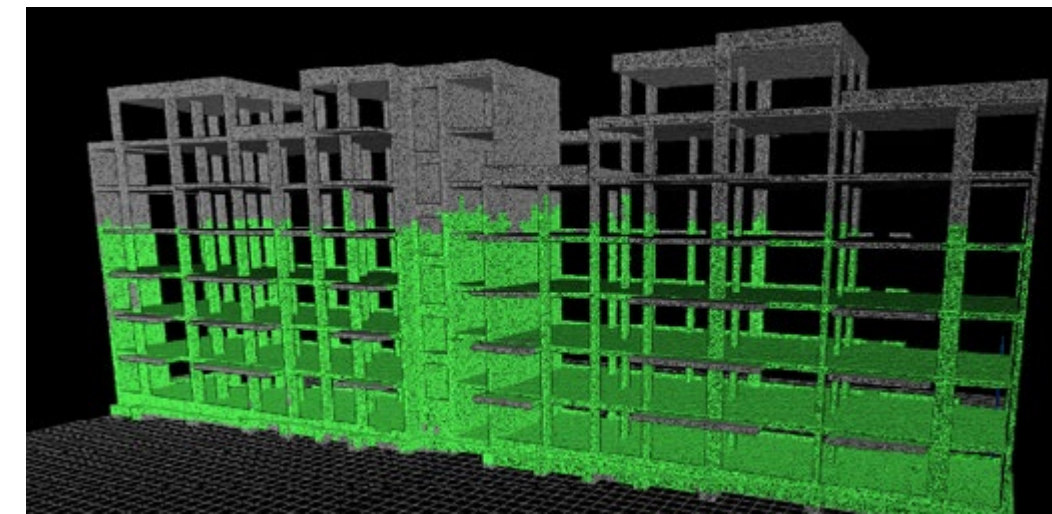
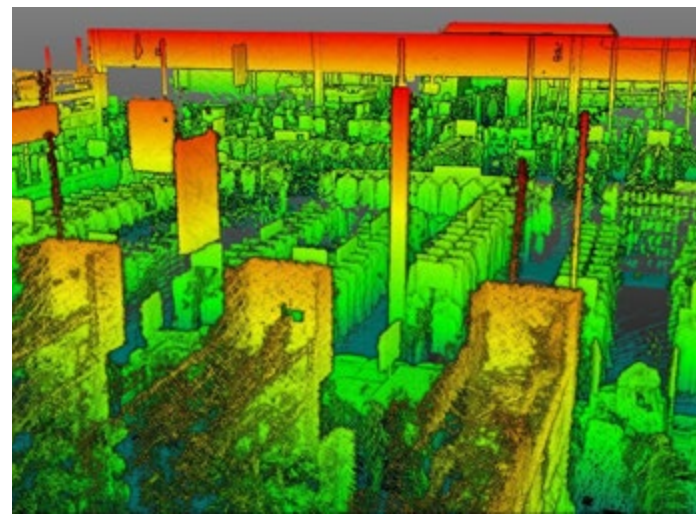
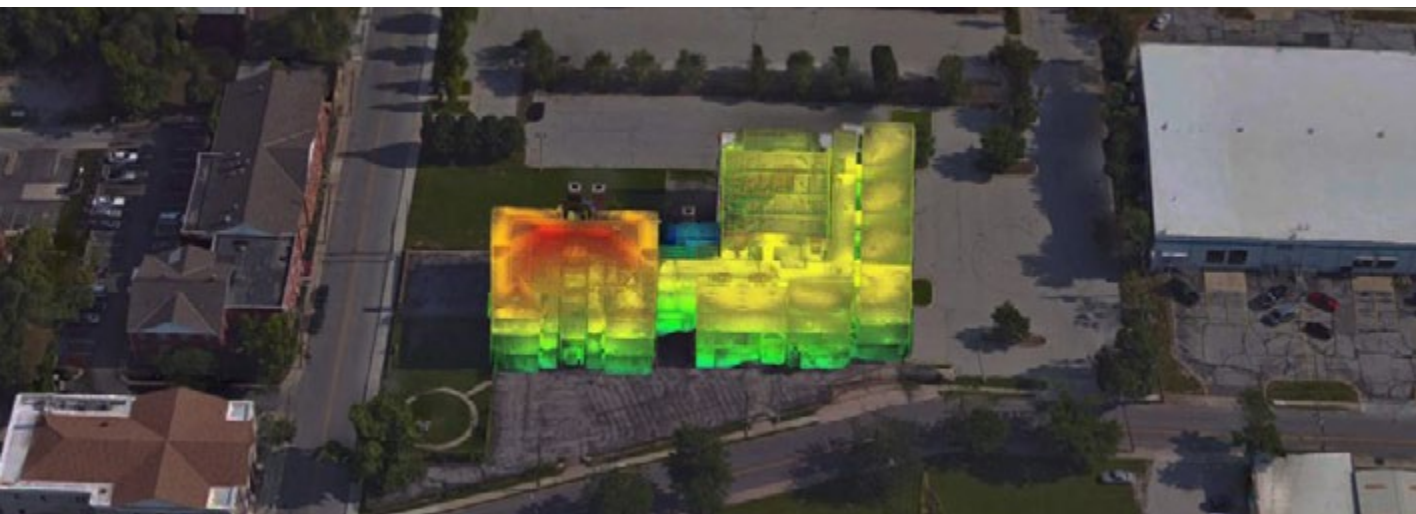


Proptech

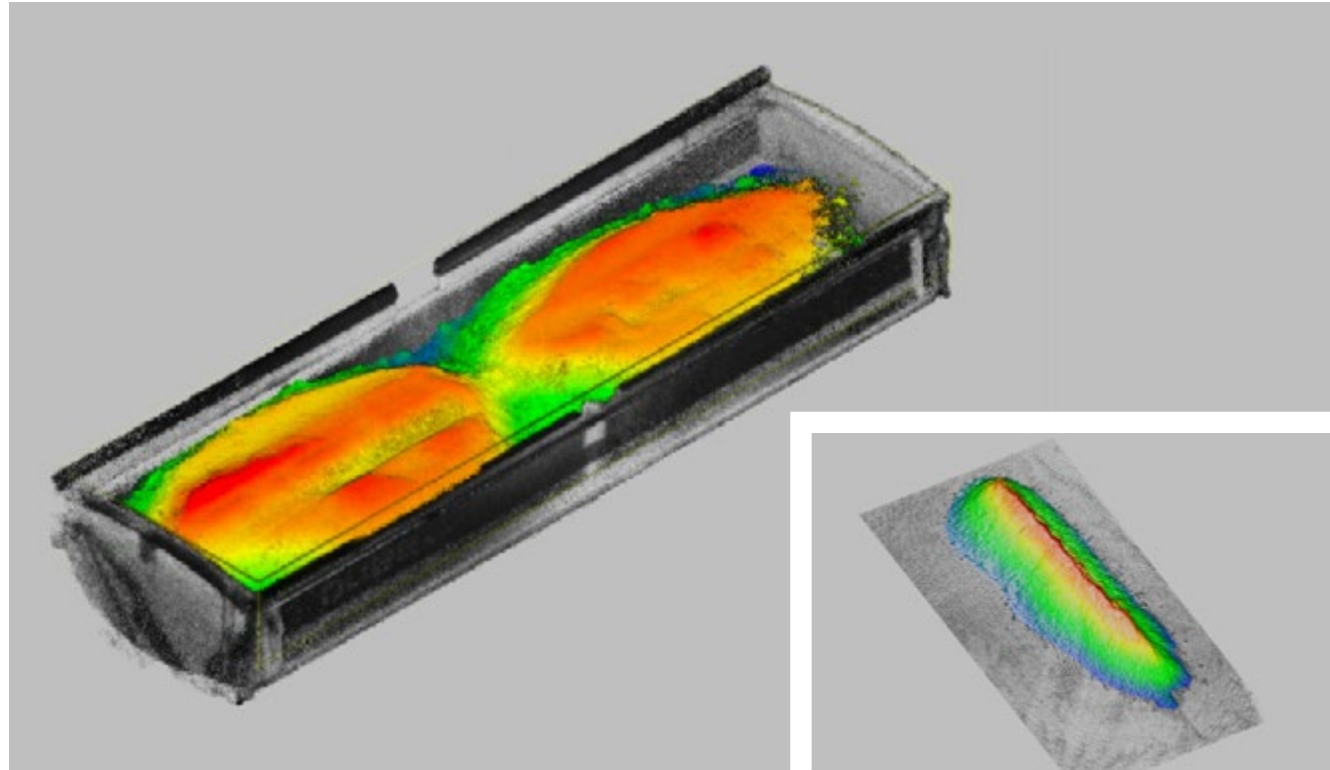
Embracing technological solutions like SLAM laser scanning gives Commercial Real Estate rapid, repeatable and highly accurate measurements and floorplans of their properties, without needing to outsource or rely on dated information, ultimately saving them money.

Also, SLAM solutions accurately determine the floorplan of a property and how it has changed and adapted over time.

Considering these, Commercial Real Estate companies are able to maximise their property value and have easy to read digital records of their assets.



Mining



Capturing data in mines is quick, safe and highly repeatable.

Rapid data capture means fewer hold ups in production, saving time and money, plus the frequency of capture means companies can keep on track with targets and make necessary logistical changes.

Main applications in mining:

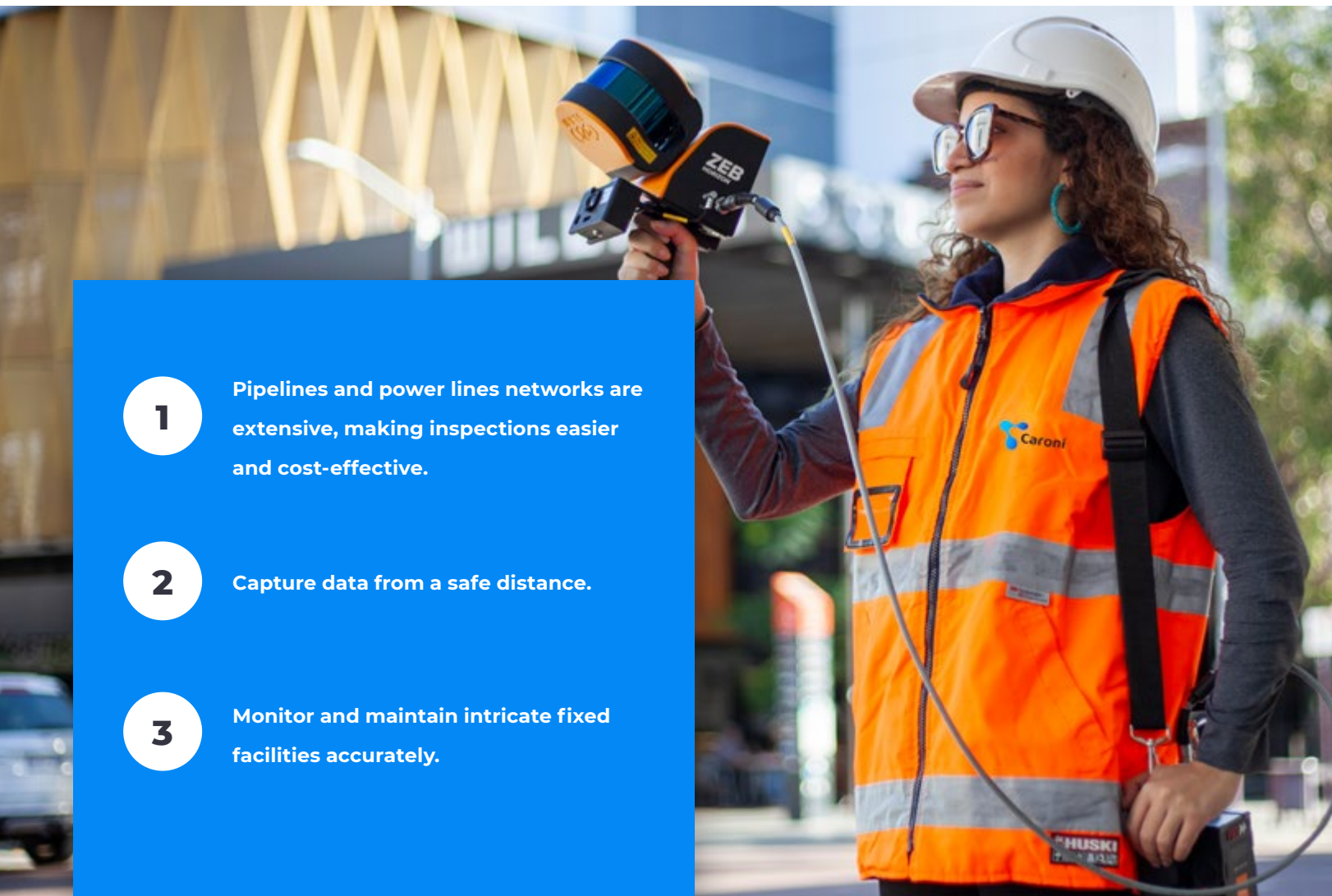
- ✓ General mapping: mapping areas without previous (or outdated) information.
- ✓ Convergence analysis: scanning the same area in different epochs to detect and quantify changes.
- ✓ Restricted area mapping: use of the ZEB along a remote vehicle to safely scan in areas of difficult access.
- ✓ Incident recording: use to record all details surrounding an incident scene.
- ✓ Advance tracking: to quantify advances in underground tunnels.
- ✓ Volume calculation: measure stockpile volumes, indoors and outdoors.
- ✓ Vertical scanning: scan shafts, ventilation passes and ore passes.

Infrastructure inspections

- 1** information is gathered only once and there is no need for multiple visits to a site.
- 2** Limits disruption to traffic and improves safety by decreasing the time spent on a roadside.
- 3** Allows to identify and then evaluate damage, wear and deformation of roads, cycle paths, paved surfaces.
- 4** Create an inventory of assets, to manage and maintain outdoor objects such as road markings, public lighting, traffic signs.
- 5** Assess the work carried out by contractors.



Asset Management Inspection



1

Pipelines and power lines networks are extensive, making inspections easier and cost-effective.

2

Capture data from a safe distance.

3

Monitor and maintain intricate fixed facilities accurately.

Utilities Inspection



1

Create an up-to-date database: Street furniture e.g. street lights, billboards, bus stops can all be detected.

2

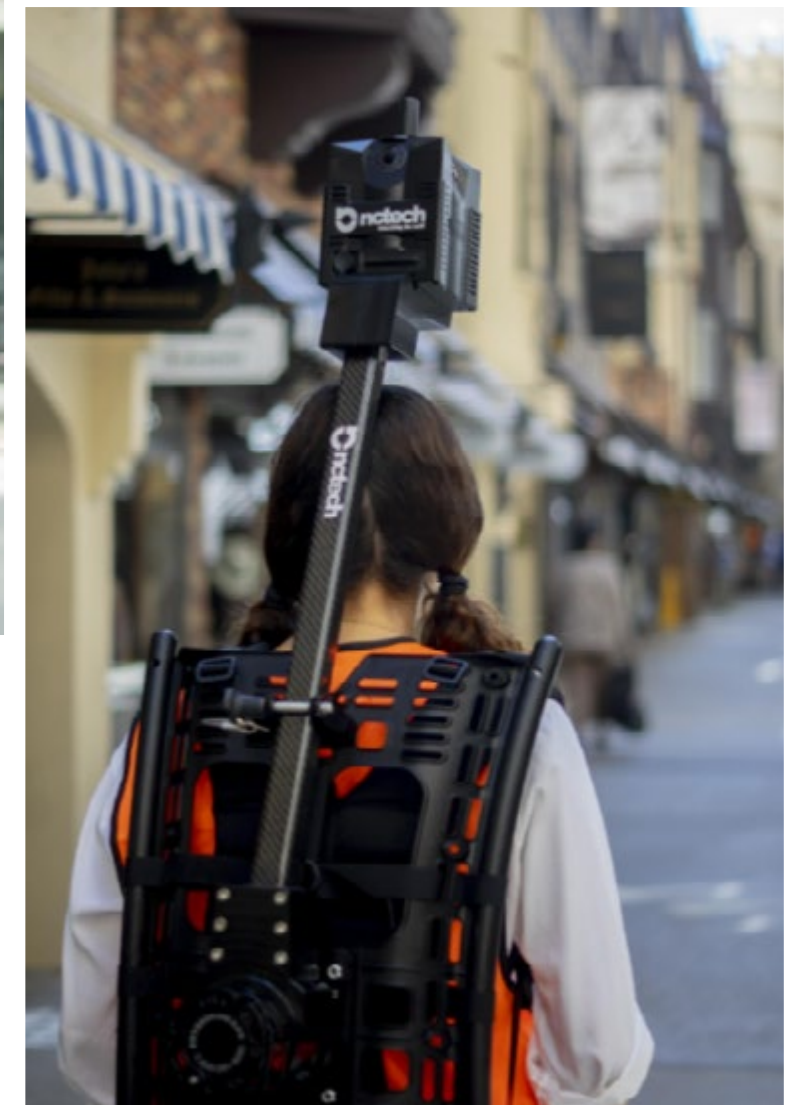
Remotely monitor the condition of assets

3

Save time spent outside investigating.

4

Know when and where maintenance is needed.





**EFFORTLESS DATA CAPTURE
AND ADVANCED PROCESSING
AND ANALYSIS**

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