

NAVVIS

NAVVIS VLX LIVE DEMONSTRATION

Georg Schroth
CTO, NavVis



TOWARDS THE AGE OF MOBILE MAPPING

Digital Total Station

One position captures several points



1980s

Terrestrial Laser Scanner

One position captures millions of points*



2000s

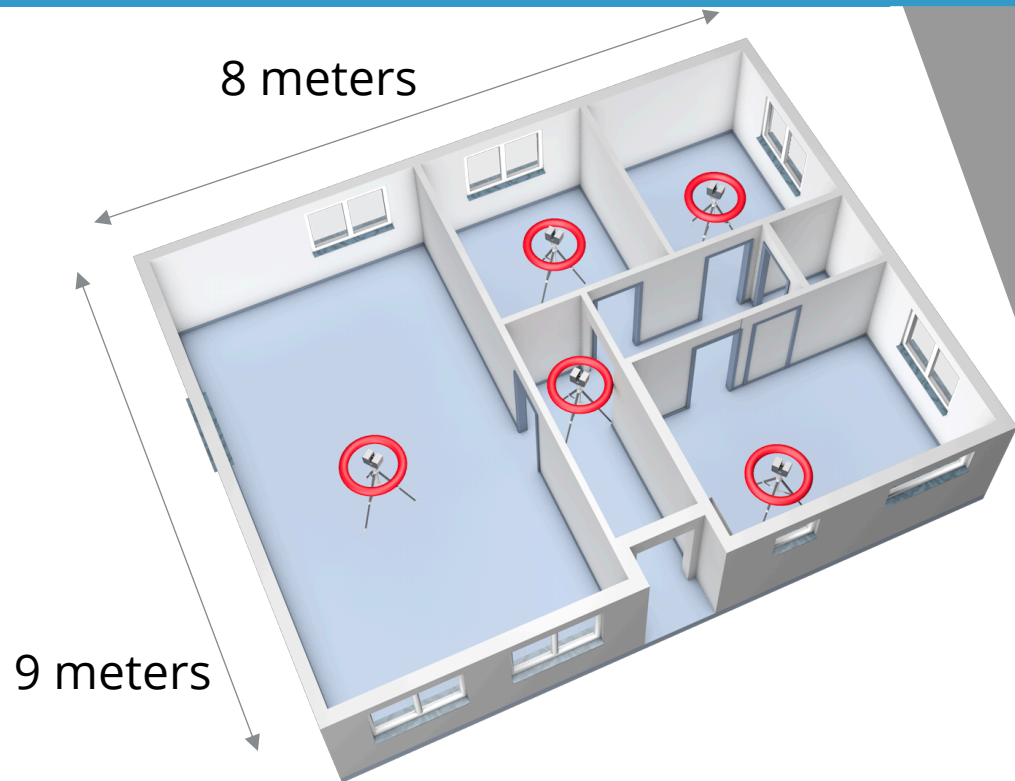
Mobile Mapping

Continuous mapping captures millions of points from multiple positions

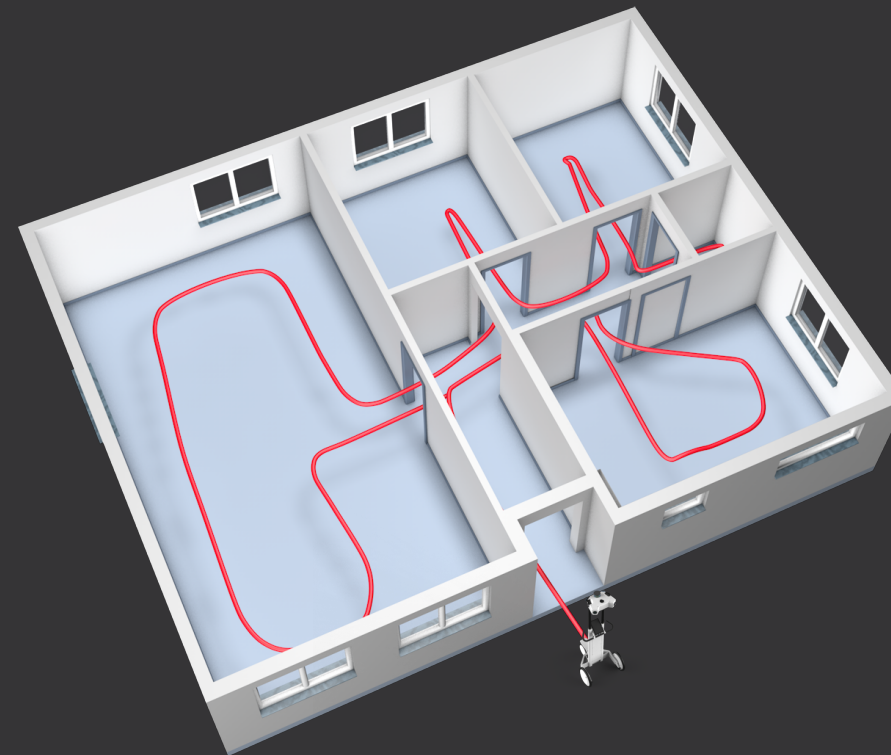


2015+

SCAN MORE COMPREHENSIVELY WHILE SAVING TIME



70 sqm
5-7 scan points, some blind spots
~ 20 min



70 sqm
Continuous trajectory, complete coverage
~ 5 min (more than 10 times faster in
larger spaces)

THERE ARE WINNERS



Mark Hanna

CEO & Founder, PrecisionPoint

An indoor mobile mapping system like NavVis M6 can scan an area up to 30x faster than traditional tripod scanners and is less disruptive to the building occupants.



INTRODUCING NAVVIS VLX INDOOR MOBILE MAPPING SYSTEM

NAVVIS VLX INDOOR MOBILE MAPPING SYSTEM

Wearable device featuring next generation SLAM:



Navigate into any space



Sensors are protected



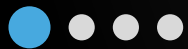
Always have real-time interface and map in view



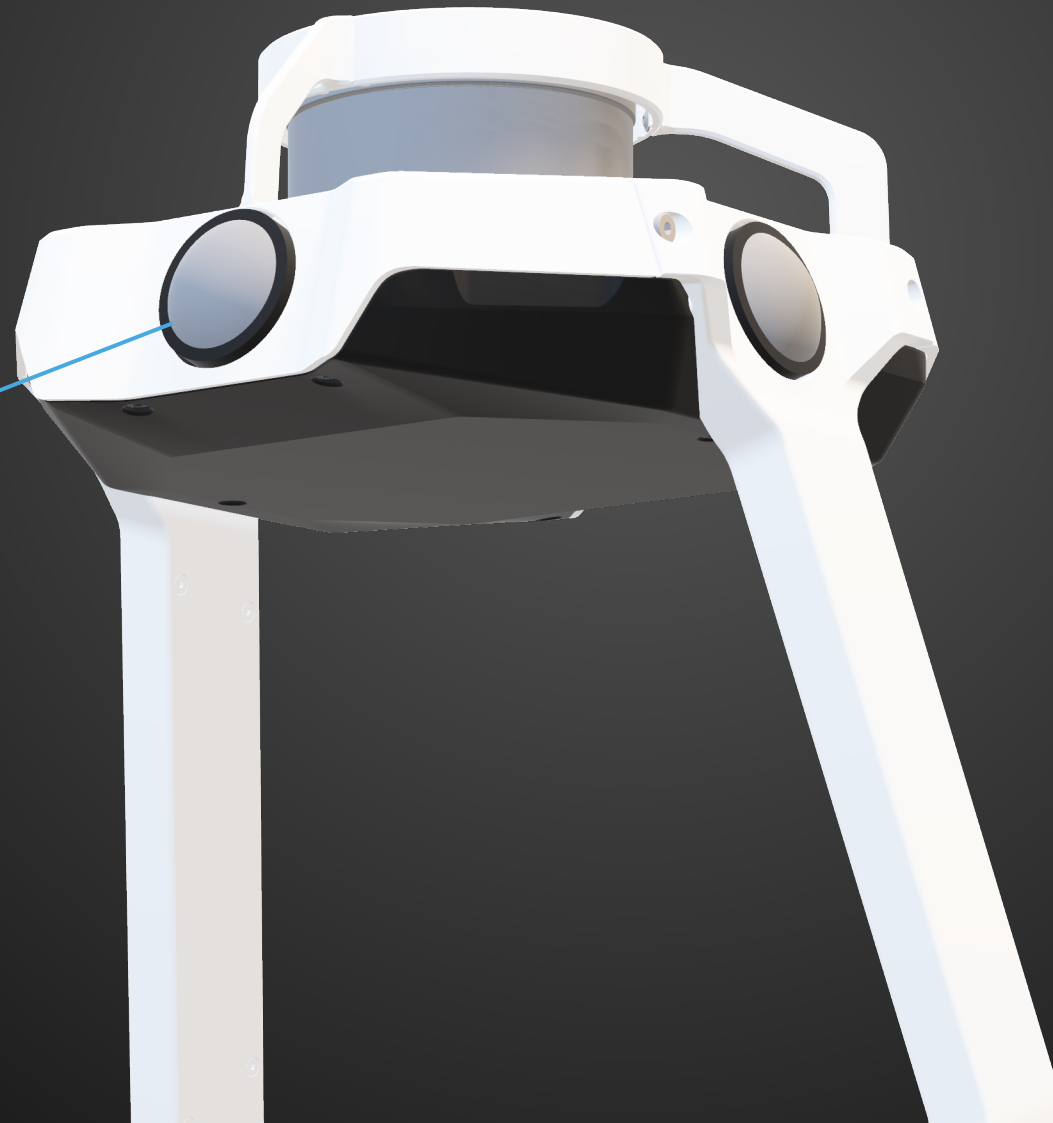
NAVVIS VLX INDOOR MOBILE MAPPING SYSTEM



Four 20 MP cameras
arranged for perfect
360° panoramas



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NAVVIS VLX INDOOR MOBILE MAPPING SYSTEM



Comfortable shoulder
rests for hands-free
operation



NAVVIS VLX INDOOR MOBILE MAPPING SYSTEM



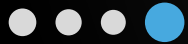
Two lithium-ion
batteries for hours of
mapping (also hot
swappable)



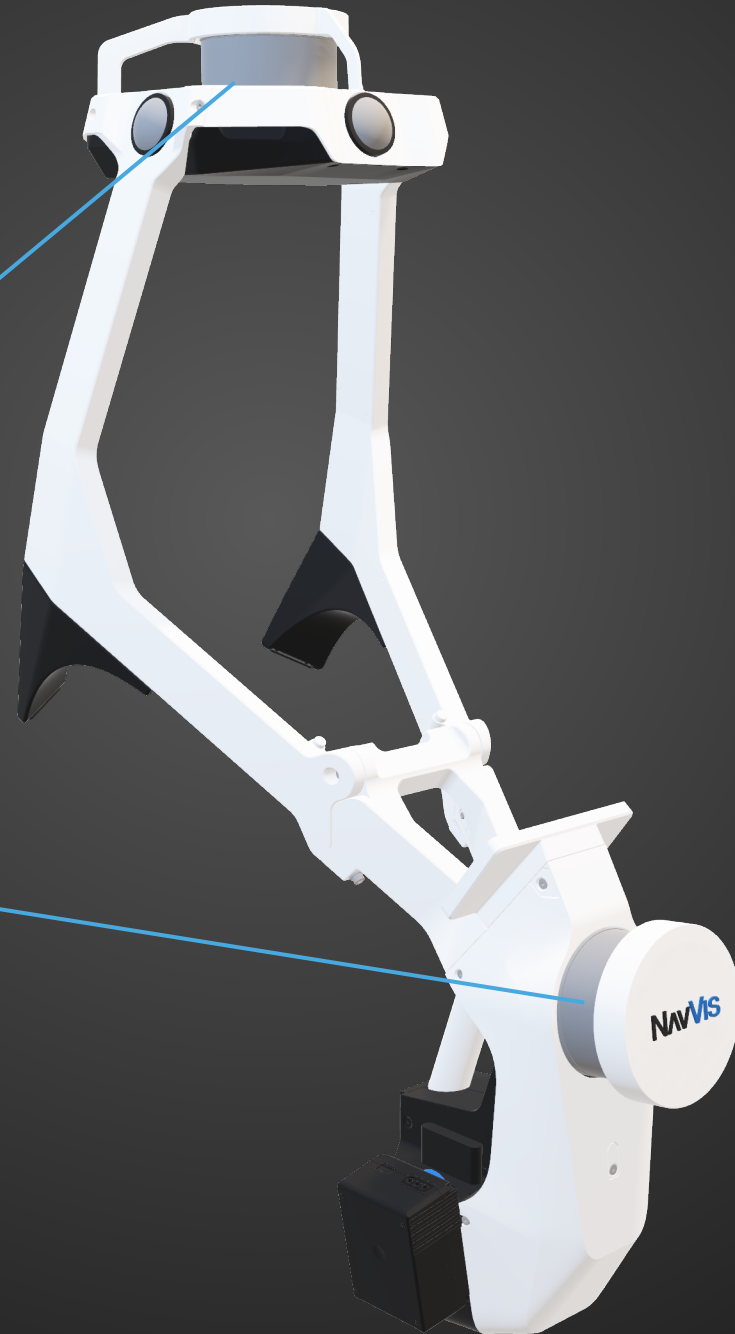
NAVVIS VLX INDOOR MOBILE MAPPING SYSTEM



Two LiDAR modules with
100-meter range powering
the most advanced SLAM
in the industry

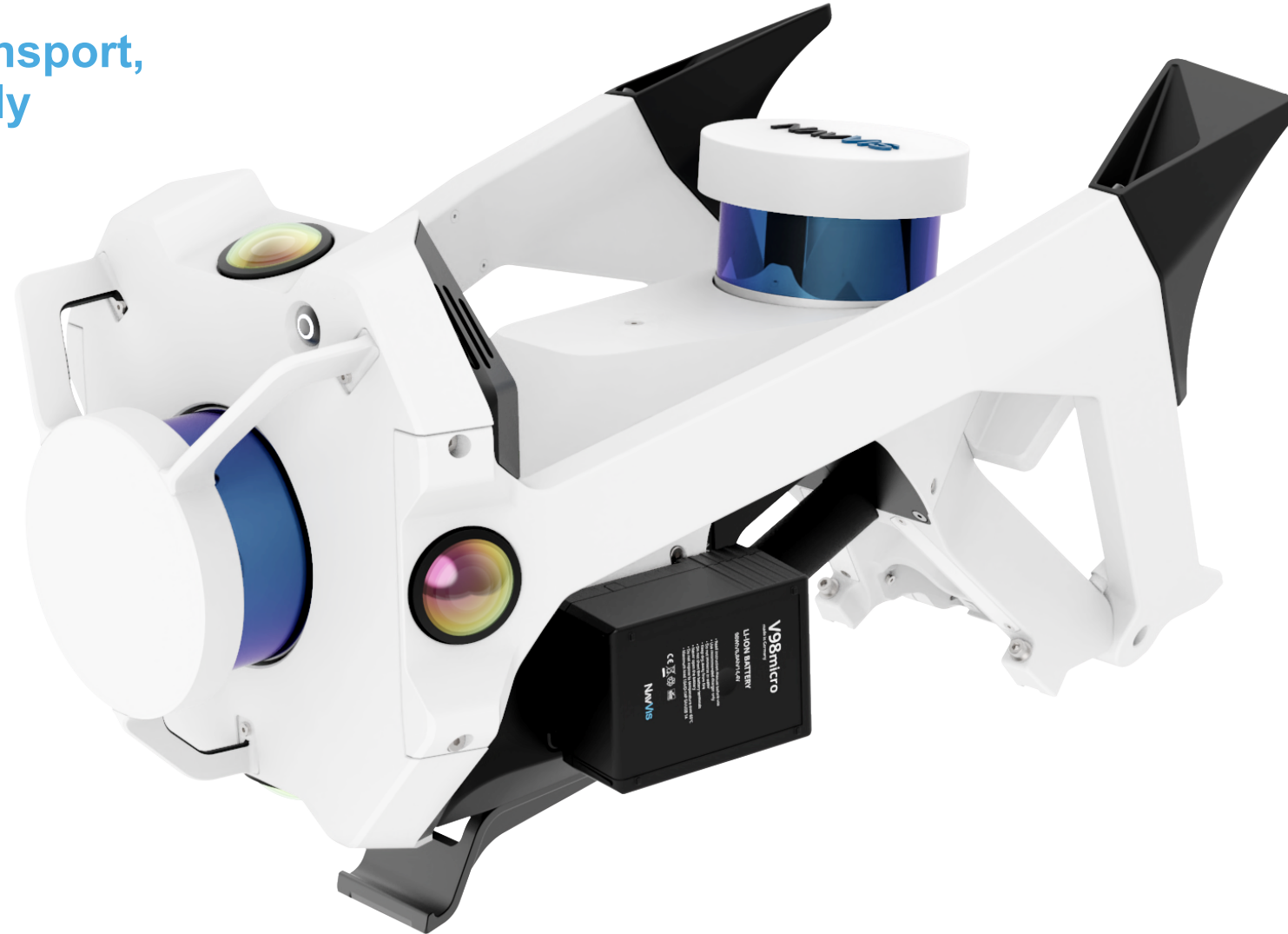


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A SMART PACKAGE FOR SMART WORK

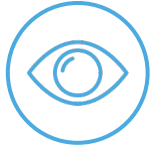
Secure case for easy transport,
all tools included – simply
unfold and get scanning



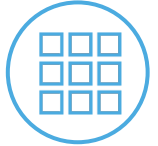
NavVis

NAVVIS VLX INDOOR MOBILE MAPPING SYSTEM

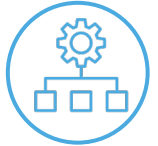
Monitor progress and quality while mapping.
NavVis real-time interface features:



Always in view



High resolution OLED display



Dataset management



Real-time quality map



Covers indoor, outdoor,
and multi-story scans



GROUND CONTROL POINTS

Align point clouds with control points on wall and ground for quality assurance.
NavVis control points:



Ground and wall targets



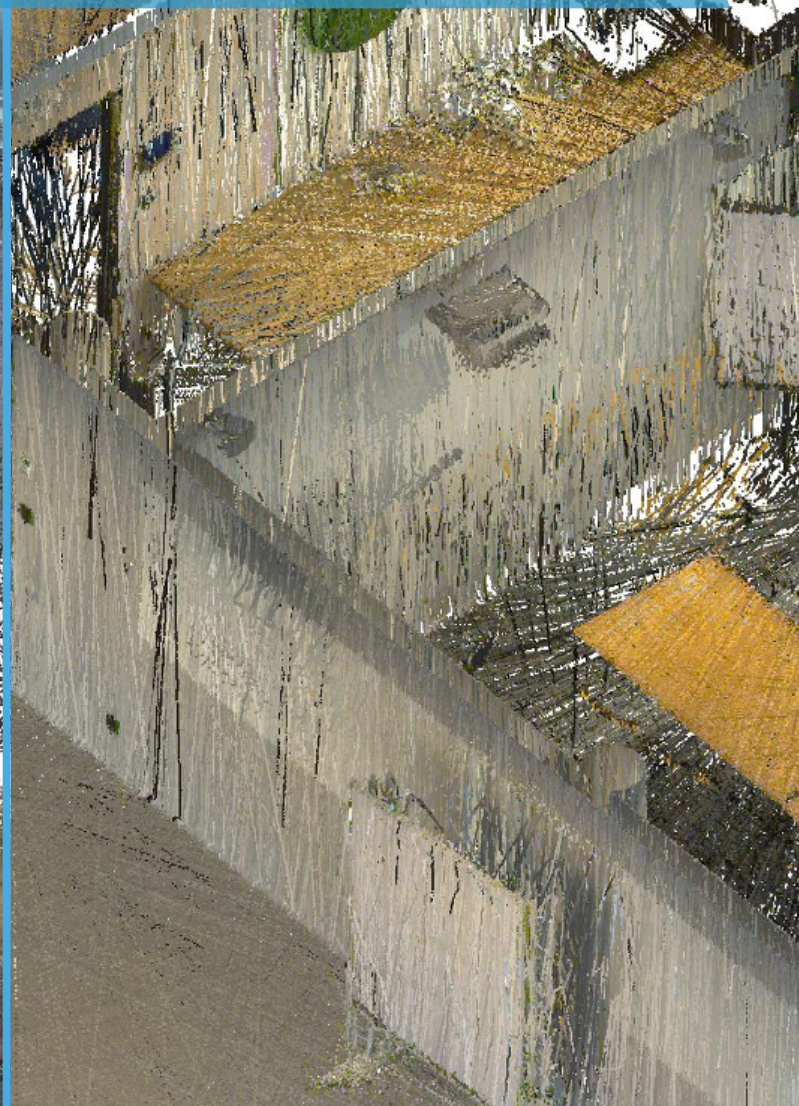
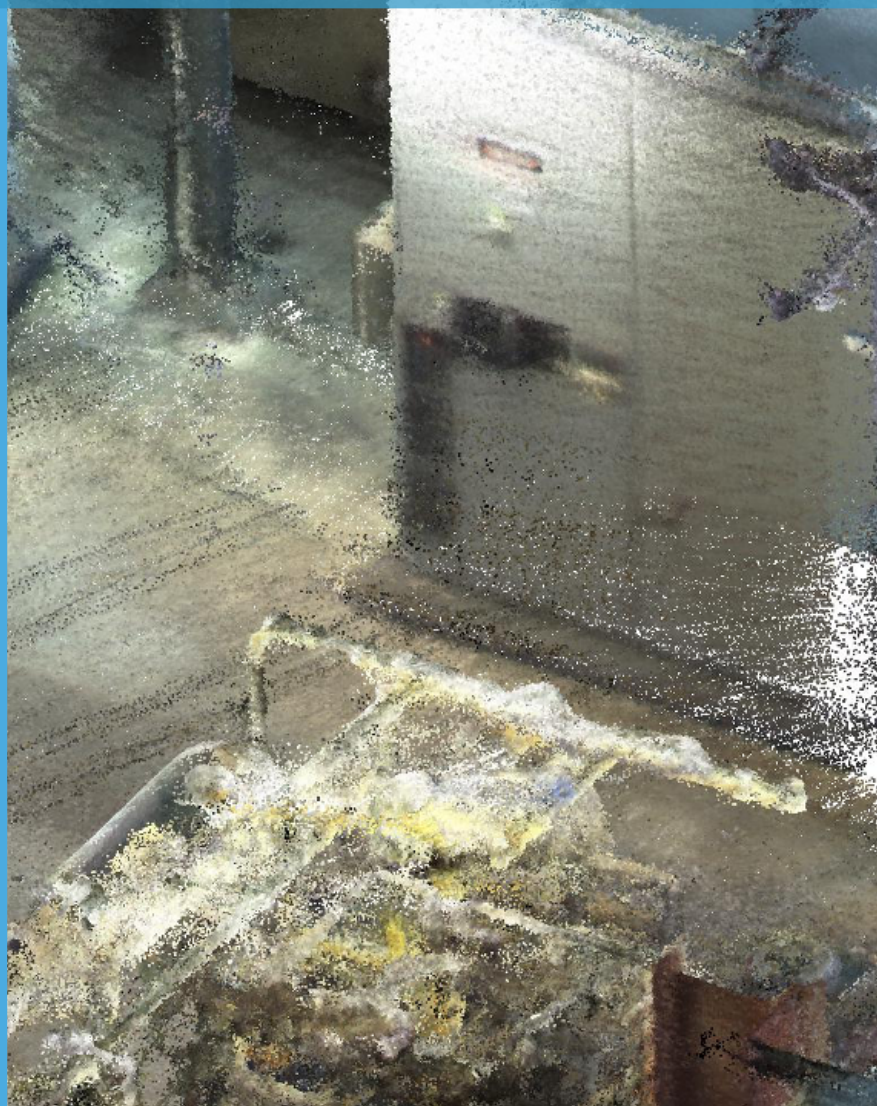
Simply touch the target and trigger




Control data quality, align datasets, and eliminate drift on long scans



STATE OF THE ART IN SLAM-BASED MAPPING

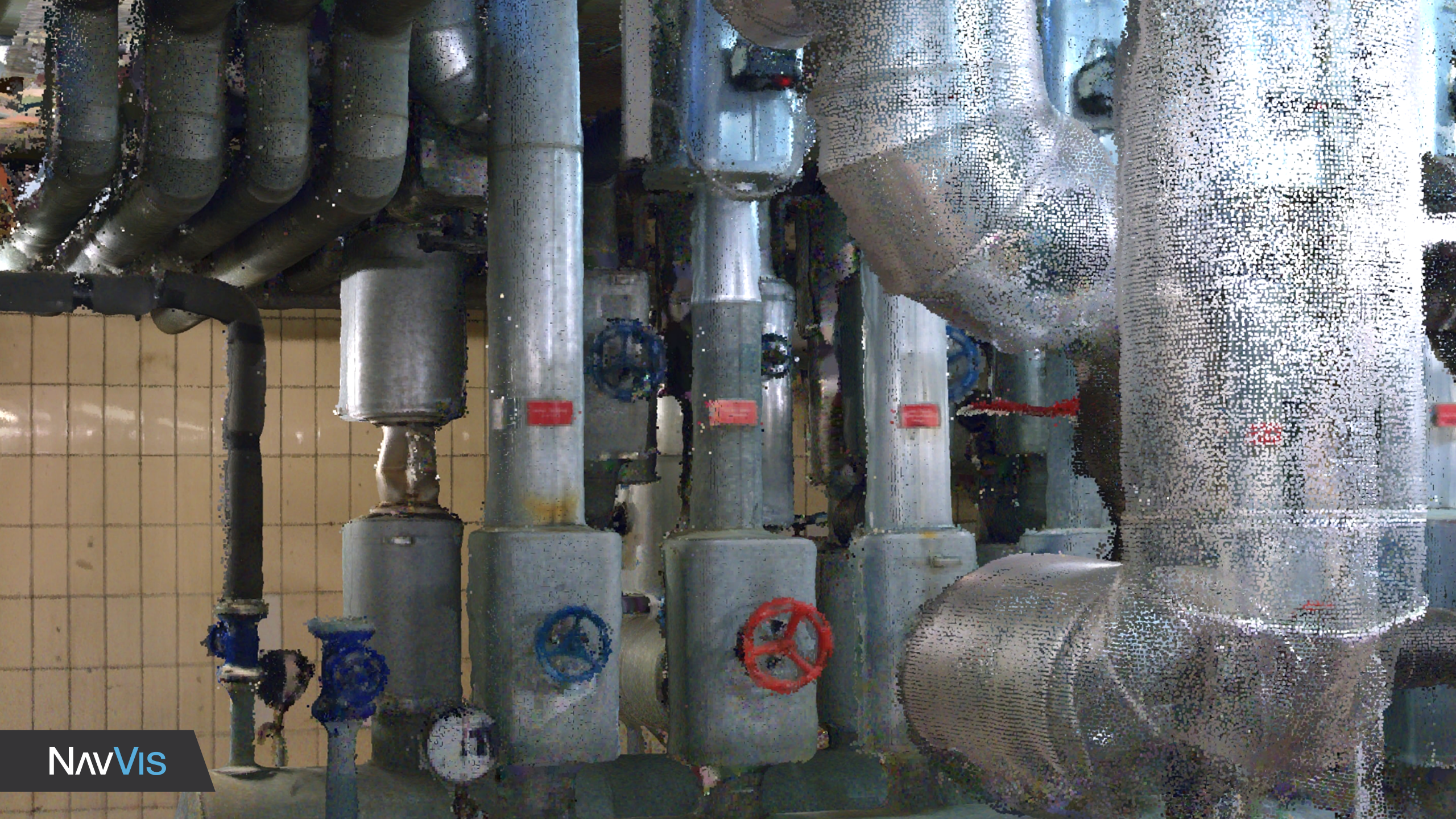


A photograph of a modern building with large windows and trees, overlaid with a blue banner containing text.

**PROUDLY PRESENTING A POINT CLOUD
CAPTURED WITH NAVVIS VLX**



NAVVIS

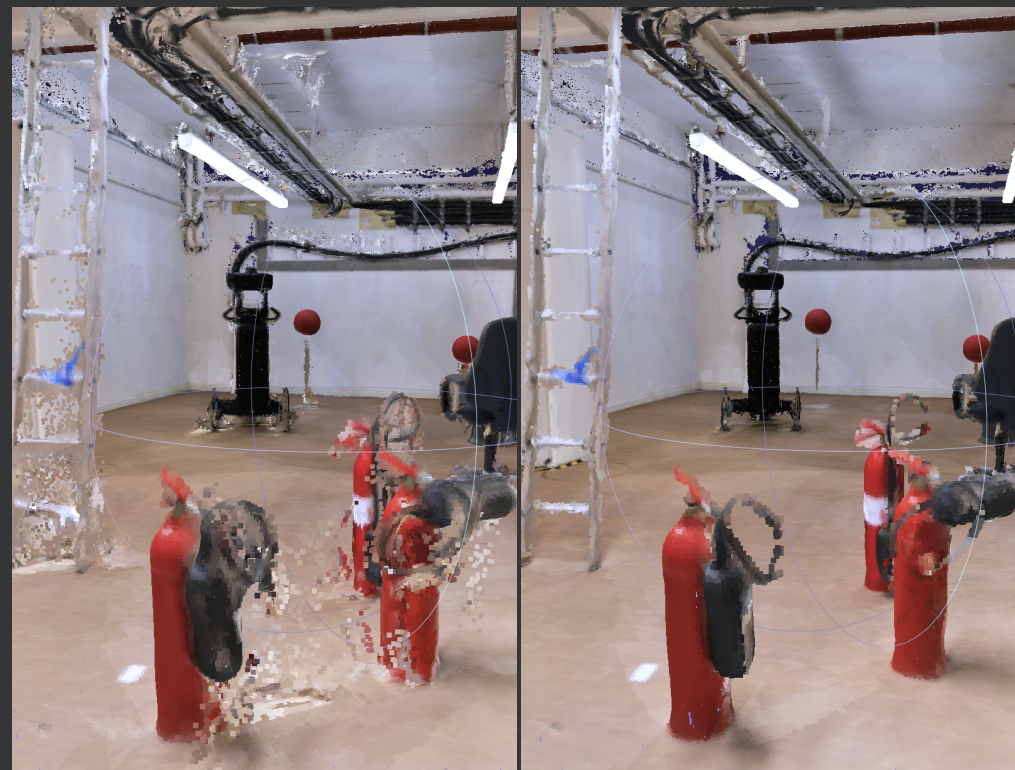




POINT CLOUD QUALITY OVERVIEW



Dynamic object removal

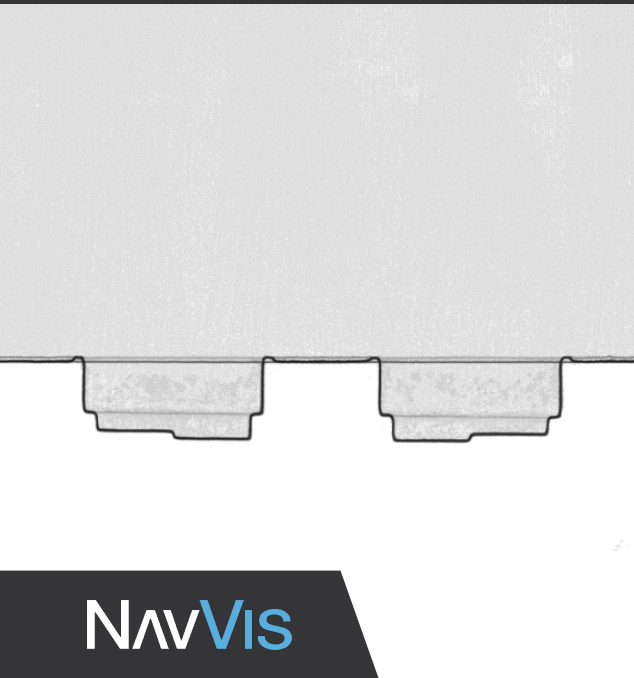


Fringe point removal

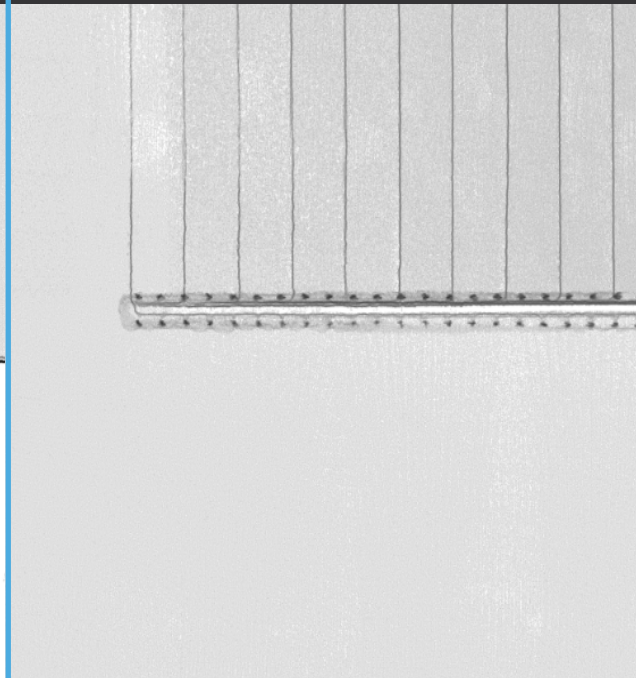
QUALITY IS IN THE DETAILS

Capture point clouds with clear and unprecedented detail

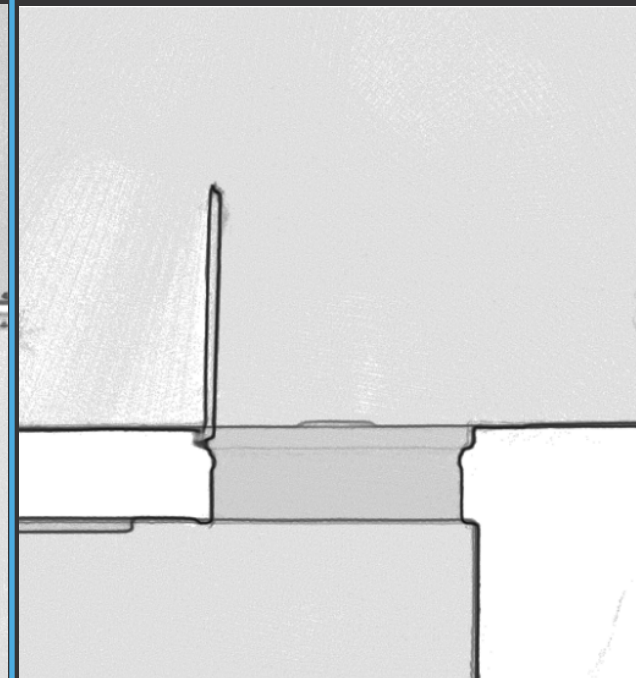
Elevator doors



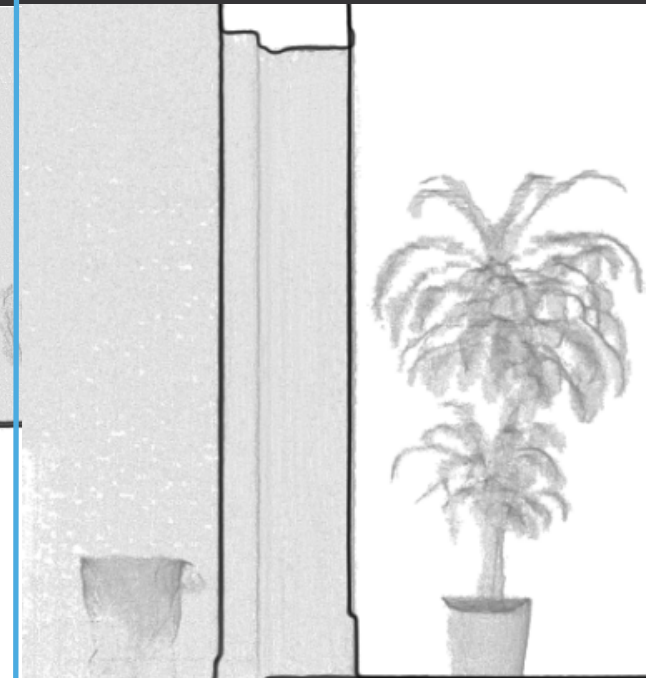
Stairs and handrail



Doors and doorframes



Vertical section through a door



THE BEST MOBILE POINT CLOUD DATA QUALITY. FULL STOP.

NavVis VLX accuracy specs

Local accuracy:

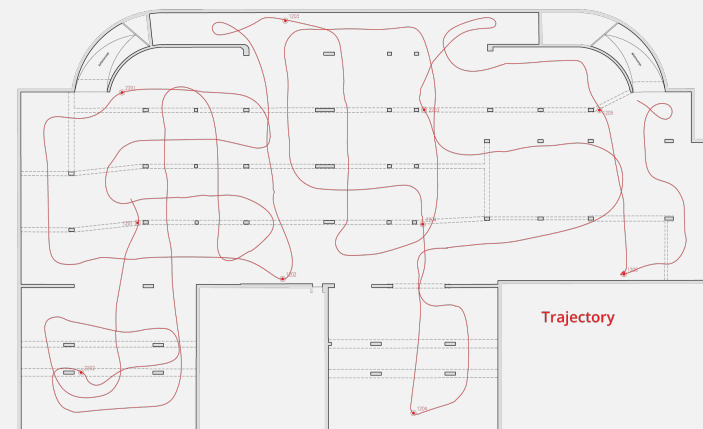
8mm at sigma one (68%)

Local accuracy is measured and validated systematically based on a 100 sqm testing room

NavVis VLX accuracy case study

Absolute accuracy: (results from one case study)

- 8mm at sigma one (68%)
- 18mm at sigma two (95%)



Environment: a parking garage of 1.500 sqm