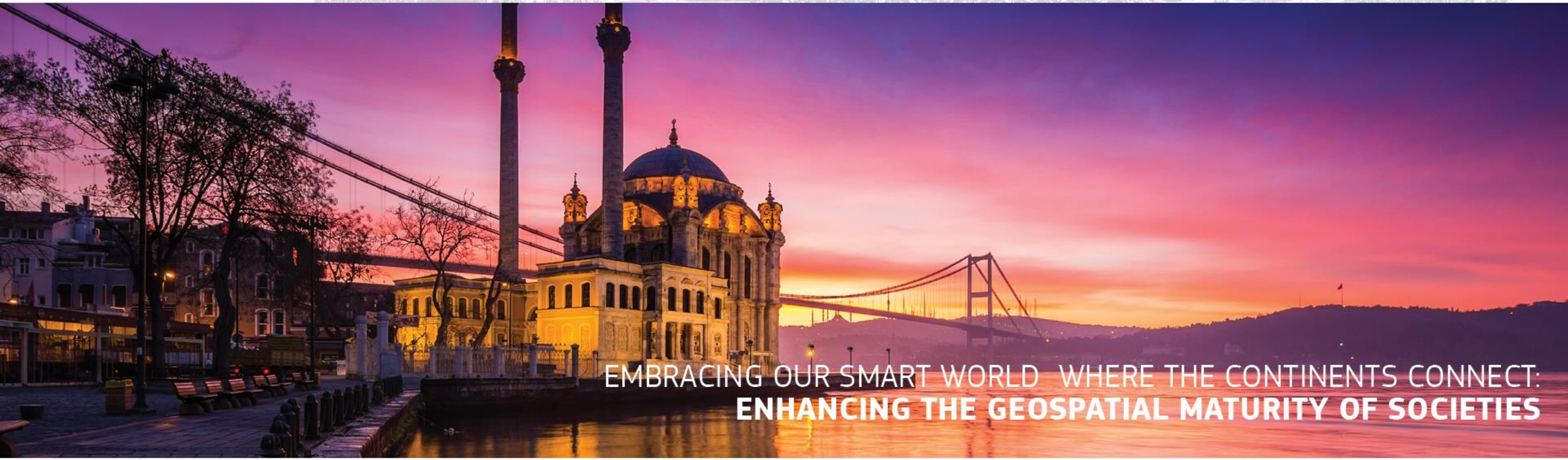
FIG 2018 ISTANBUL

XXVI FIG CONGRESS

6–11 May 2018, İstanbul



EMBRACING OUR SMART WORLD WHERE THE CONTINENTS CONNECT:
ENHANCING THE GEOSPATIAL MATURITY OF SOCIETIES

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FARO
THE MEASURE OF SUCCESS

BIM from point clouds

They bridge between reality and design

Hasan Bal | Account Manager – construction BIM
Marc Zschieschang | Product Manager – construction BIM

Agenda

- Review: BIM and Laserscanning
- BIM Workflow
- Typical project numbers
- What will be possible in the future

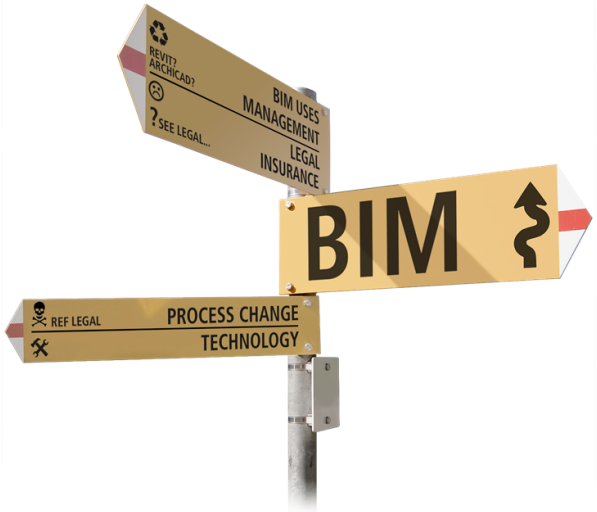
What means BIM in context of FARO?

Building Information Modeling:

- Process for creation of a digital, parametric building information model
- Usage of this model as central data hub during the overall building lifecycle

Building Information Model:

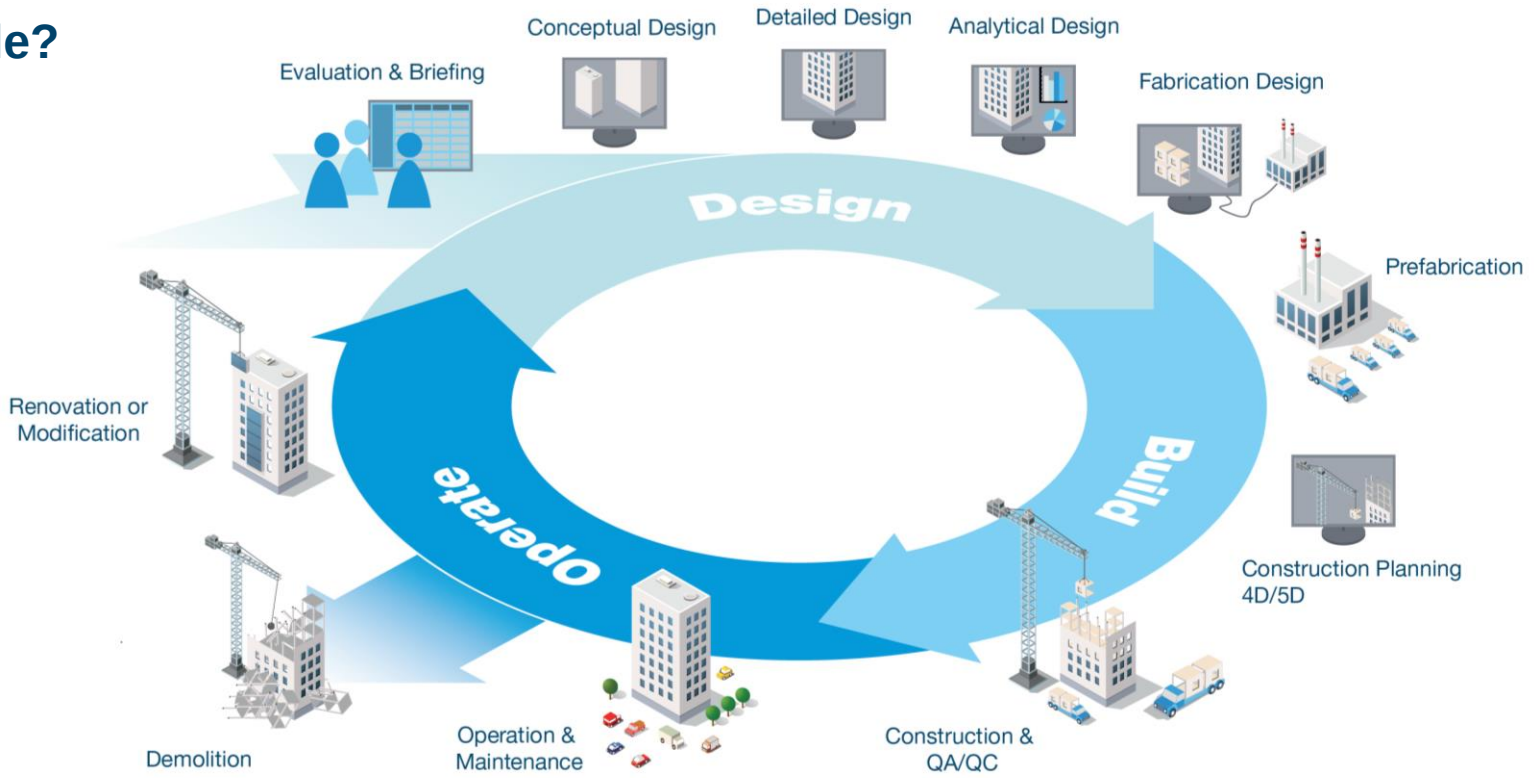
- Digital, parametric representation of an existing or planned building, plant or civil engineering project



What does FARO do?

- FARO feeds real world data into the building and infrastructure lifecycle
- FARO provides complete solutions for extracting value from reality data
- FARO helps to link the plan model with the construction site

Building Lifecycle?



How to get reality capture data?

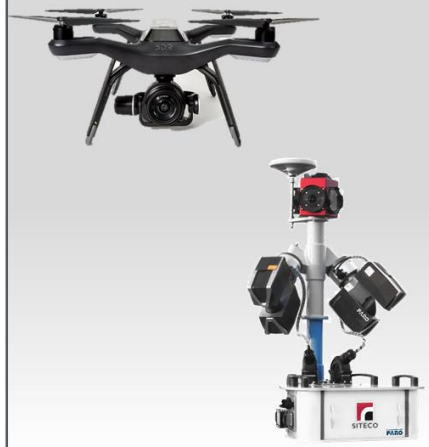
Terrestrisches Laserscanning

Laser Scanner FARO Focus S

Handheld Scanner

FARO Freestyle 3D

Mobile Mapping



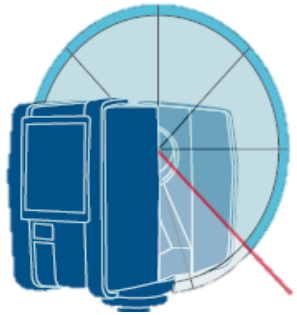
UAV with Kamera, Roadscanner C

Laser scanner

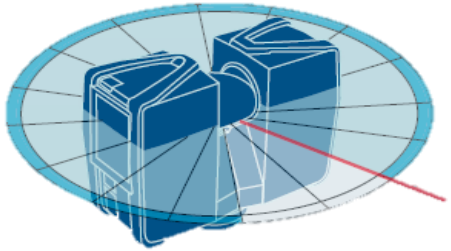
- Captures up to ~1 Million 3D points per second
- Creates a high density representation (digital twin) of the reality

Technical specification FARO FOCUS S:

Link



Vertical angle



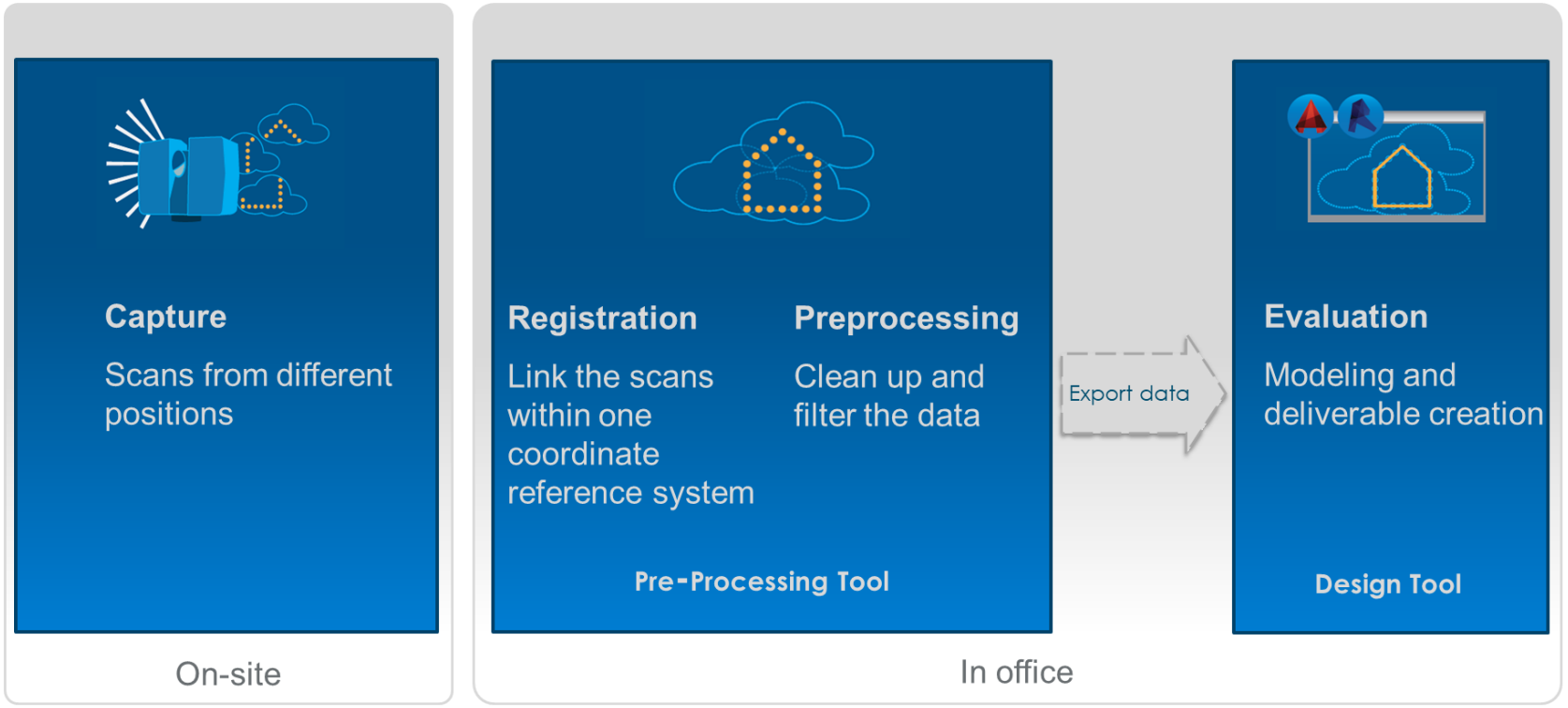
Horizontal angle

Distance measuring

Result:

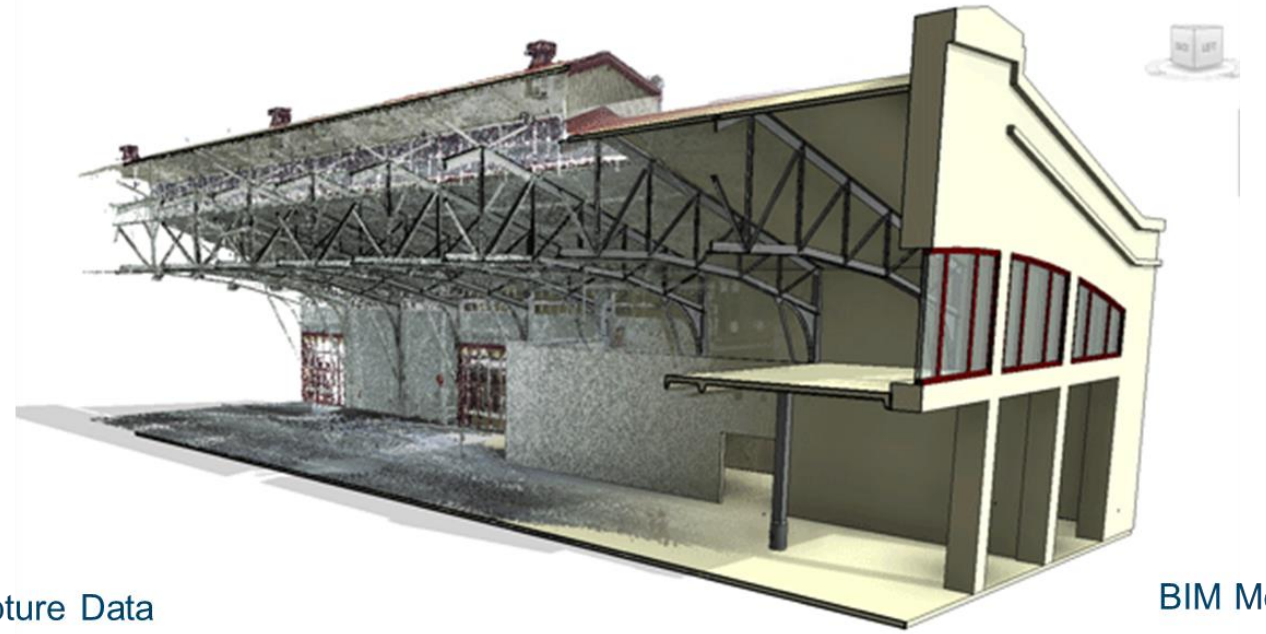
Reality capture data

From reality capture data to BIM



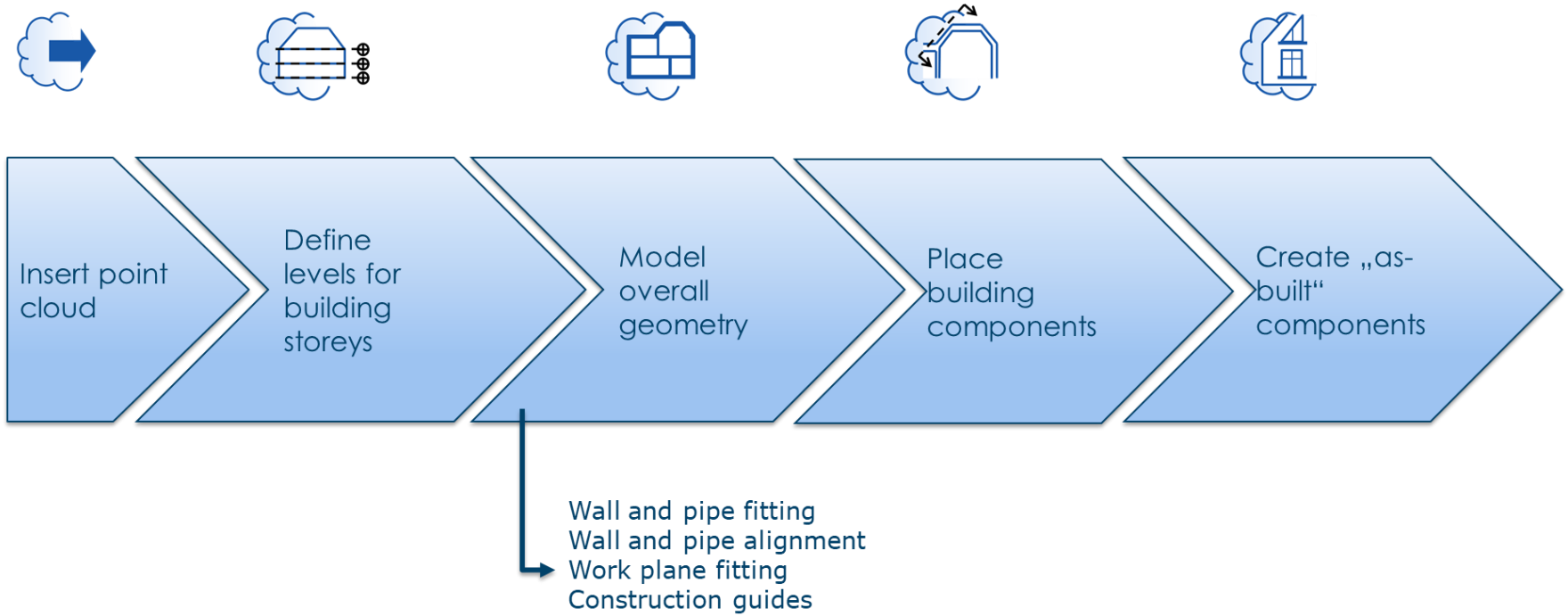
From reality capture data to BIM

In FARO context: „Scan to **BIM**“



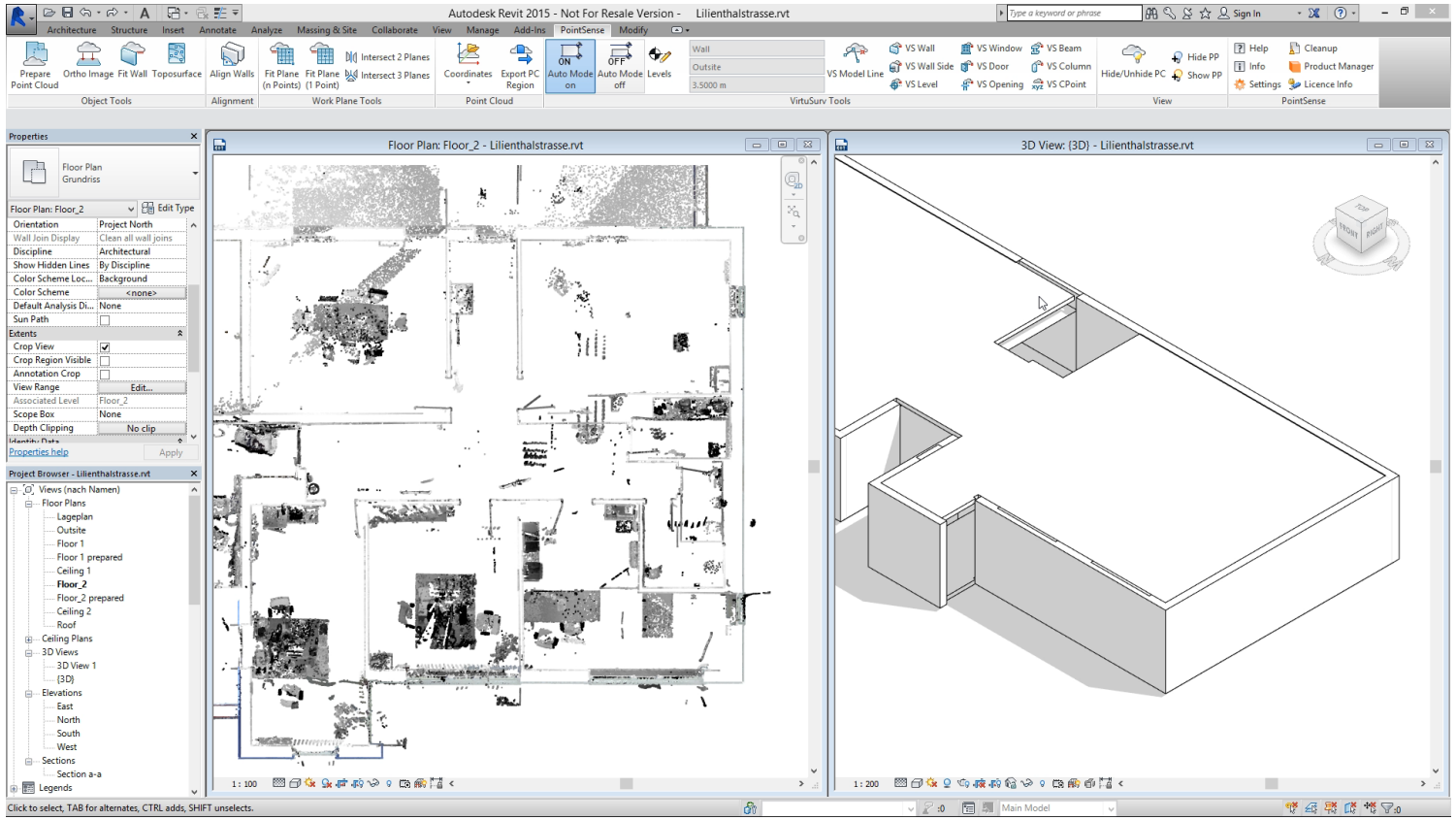
Reality Capture Data → BIM Model

Scan to BIM workflow



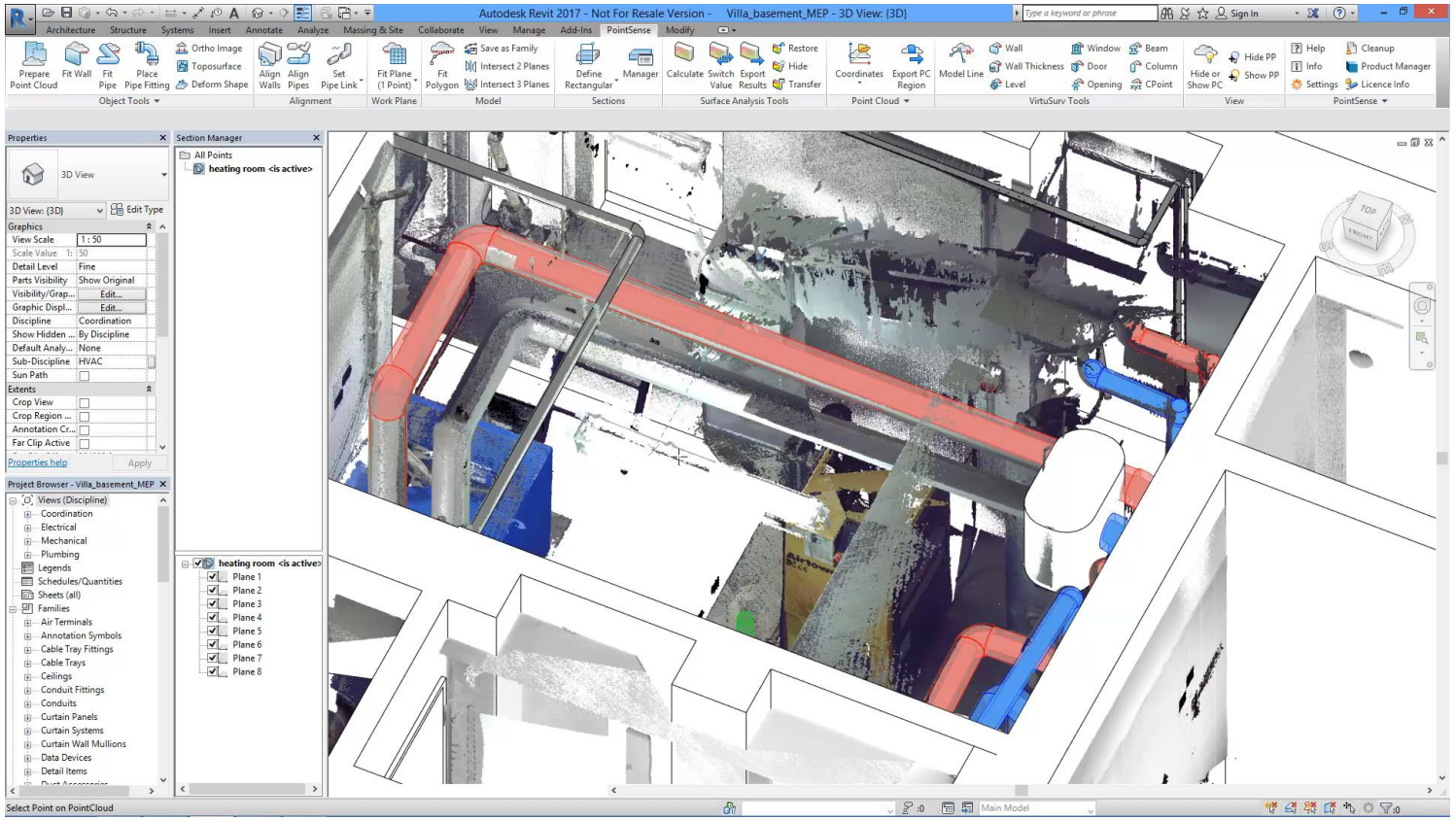
Example:

Wall fitting



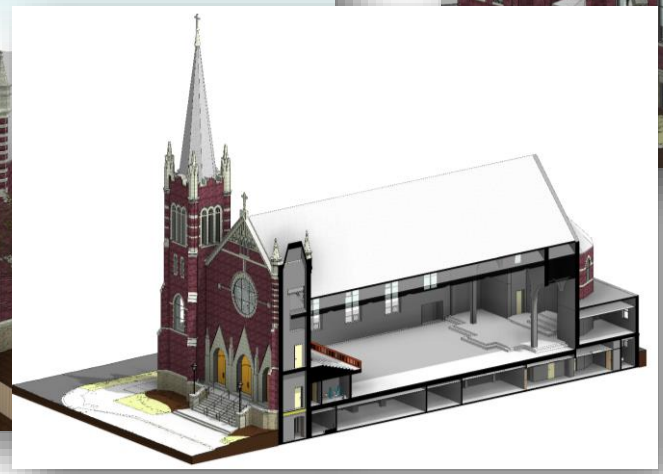
Example:

Pipe fitting



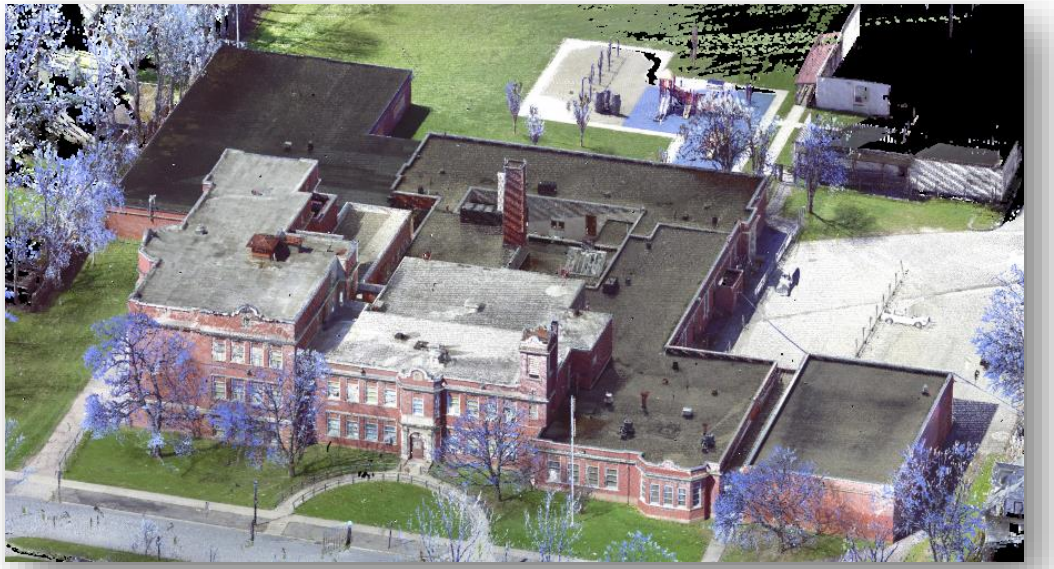
Project numbers

- 118 Scans, 2 Days on-site, 3 weeks modeling (1 person)



Project numbers

- 470 Scans, 5 Days on-site, 5 weeks modeling (2 person)

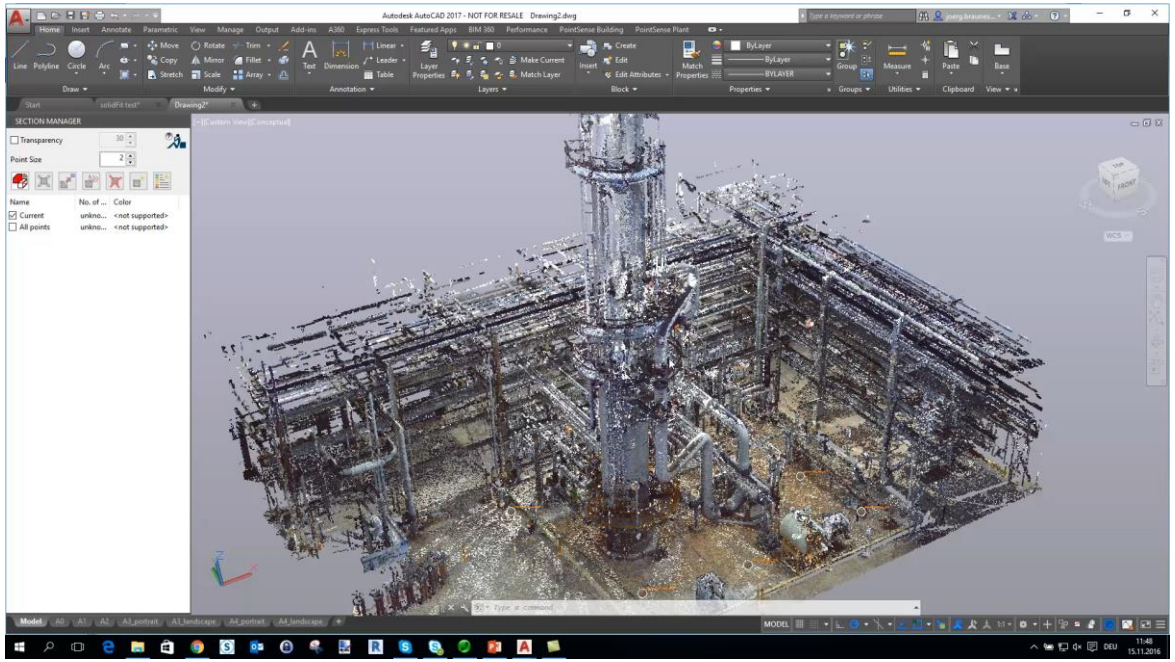


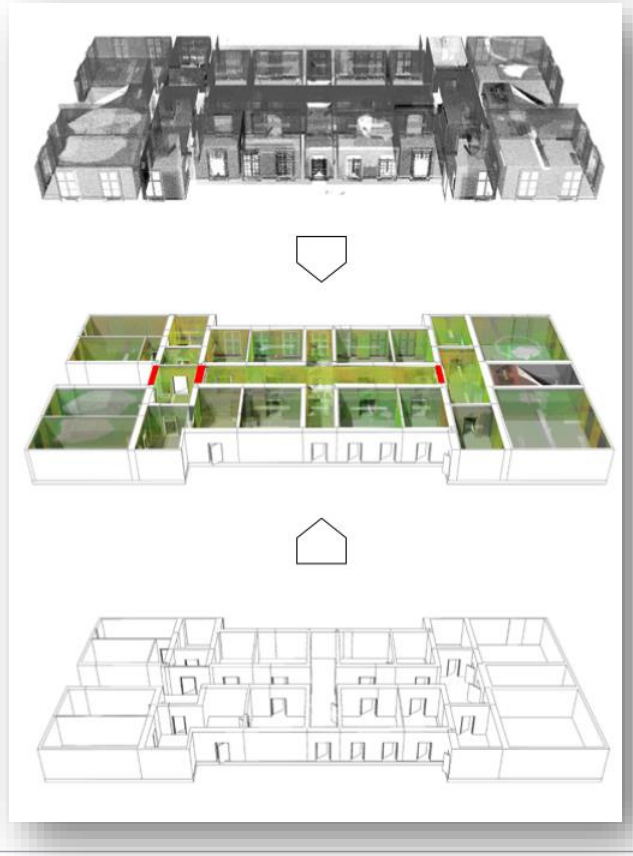
Future outlook

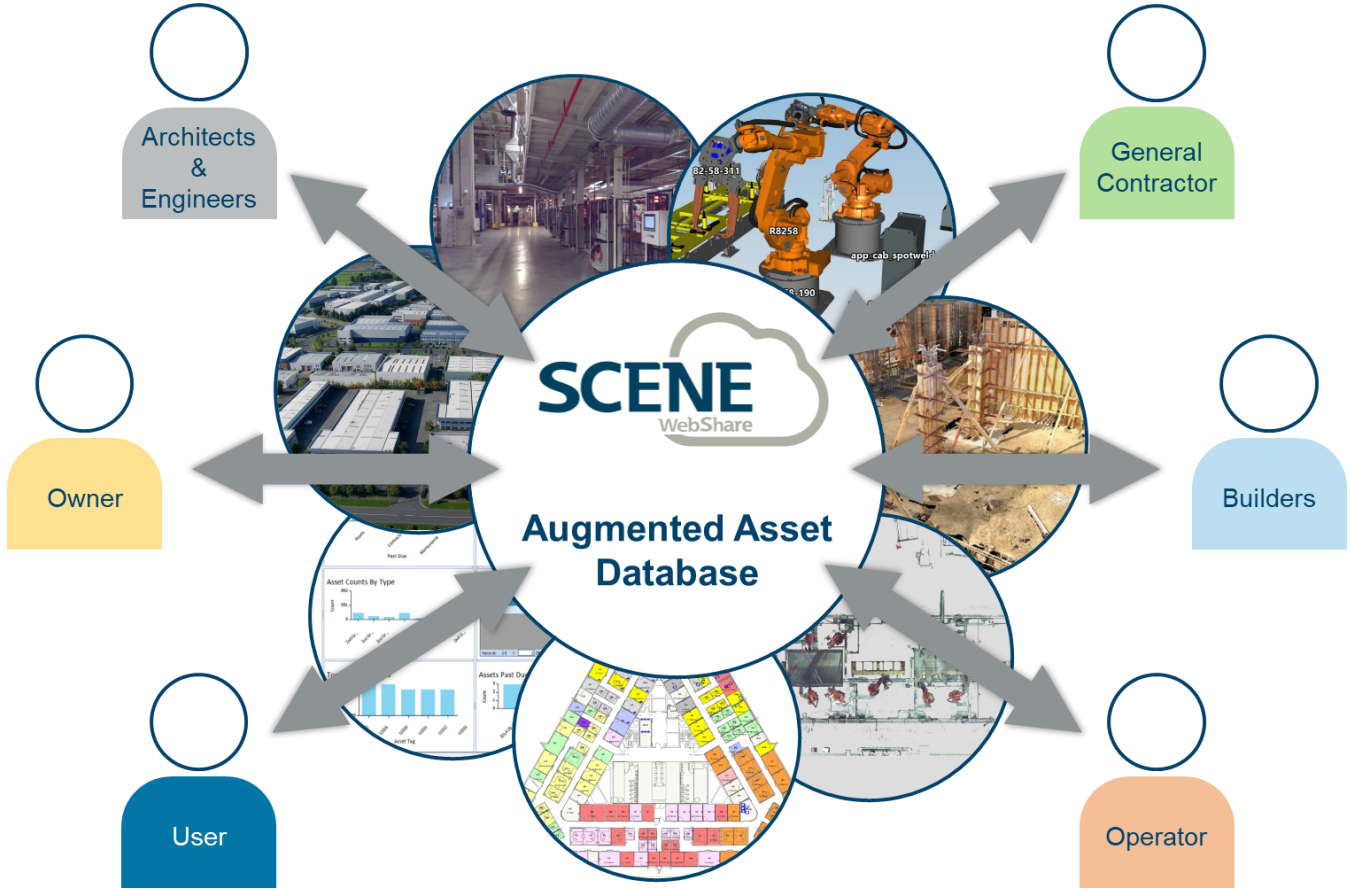
- Lets look behind the door

Future outlook

- Automated modelling embedded in user workflows with quality control toolsets

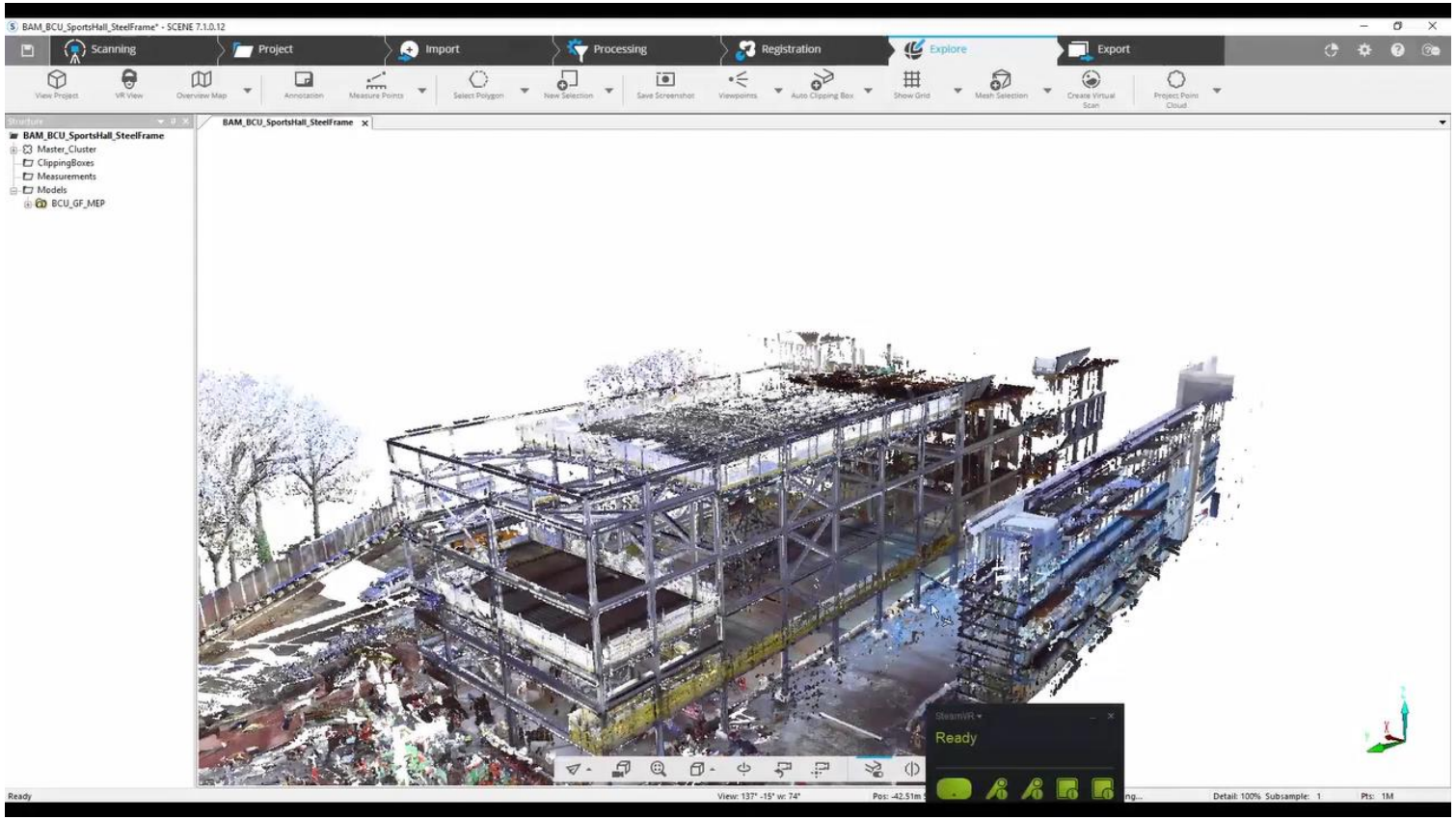





Architects & Engineers
General Contractor
Owner
Builders
User
Operator
SCENE
WebShare
Augmented Asset Database

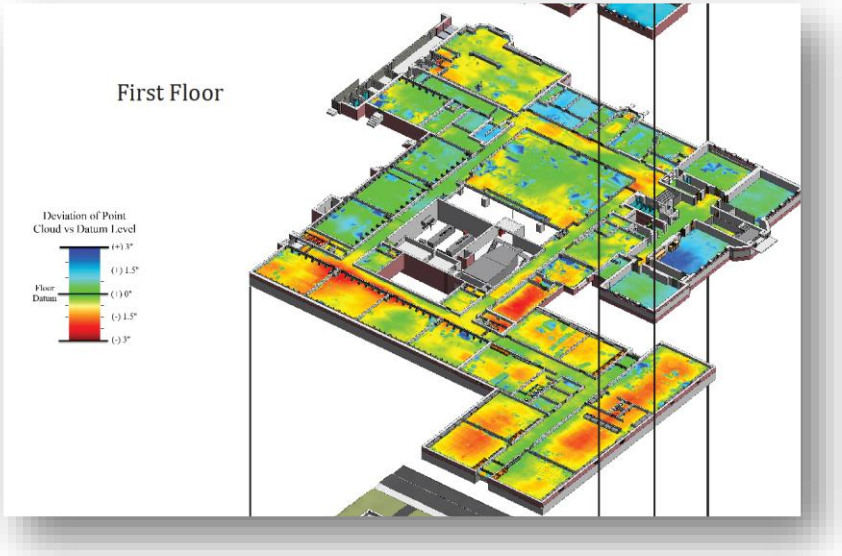
Future outlook

- Improve technology harmonization



Future outlook

- Efficient on-site workflows for data capturing and quality control



Questions?

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Manage
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T4R: Create/Modify
AddIn Integration
VirtuSurv
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Linking PC
Import Pos
Hide PP
Show PP
Settings
Info
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TOP
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