Transforming the Way You Work
What's new from Trimble

John Whitehead

APAC Director, Geospatial

…..in such a complex world,

….what does “Big Data” mean to us?

….why is this relevant to the Geospatial Professional?

….what are the key enablers to pay attention to?

….what are applications/cases that are moving in this direction?

Focus on the Data… that's where the value is!

Big data is a broad term for large or complex data sets where traditional data processing is inadequate. Challenges include analysis, capture, data curating, search, sharing, storage, transfer, visualization, and information privacy.

Wikipedia, Sept 2015

Geospatial challenge: how to effectively extract valuable information from large, often disparate data sets from different origins?

Traditional GNSS/TS

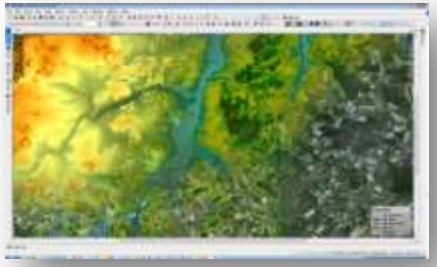
3D Terrestrial Scanning

Mobile Solutions

Unmanned Aerial Solutions

Terrestrial Photogrammetry

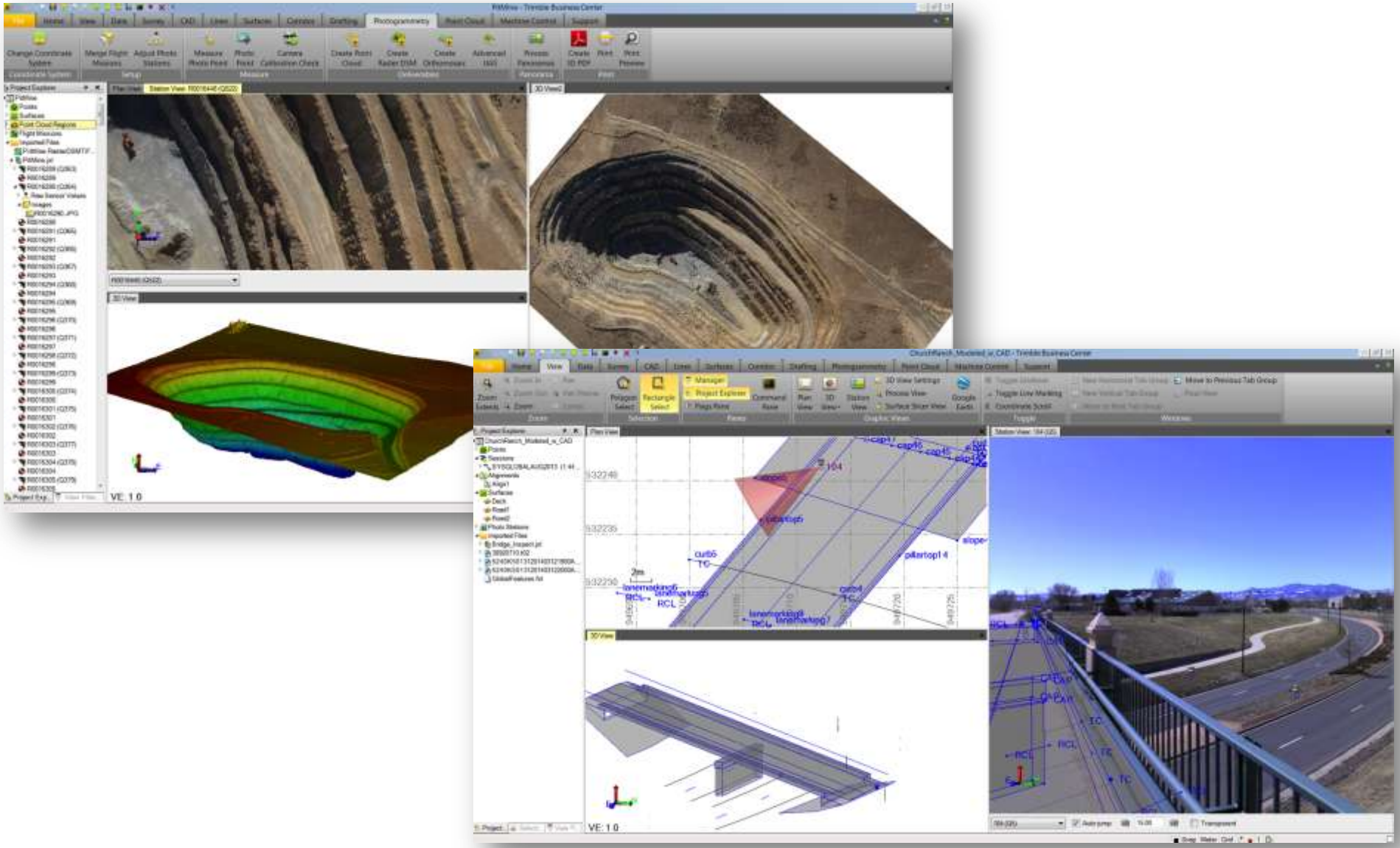
Remote Sensing



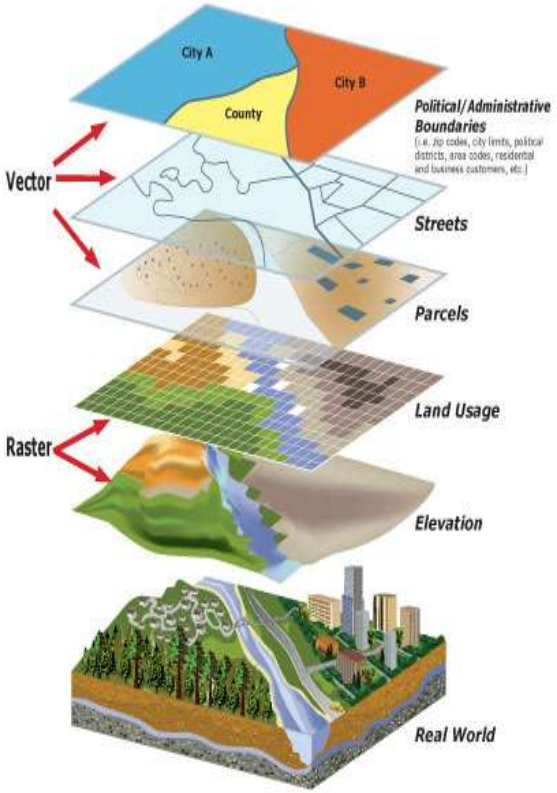
PLUS MANY MORE……!

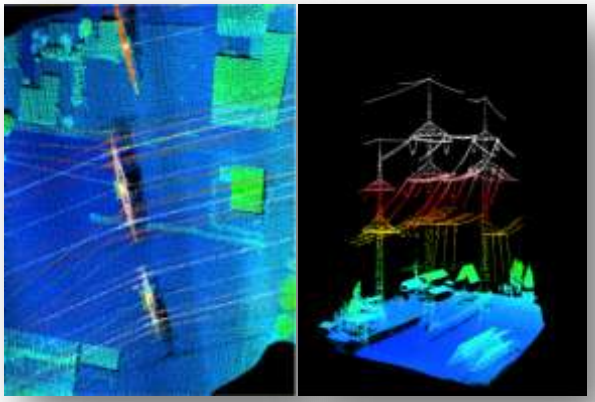
KEY ENABLERS

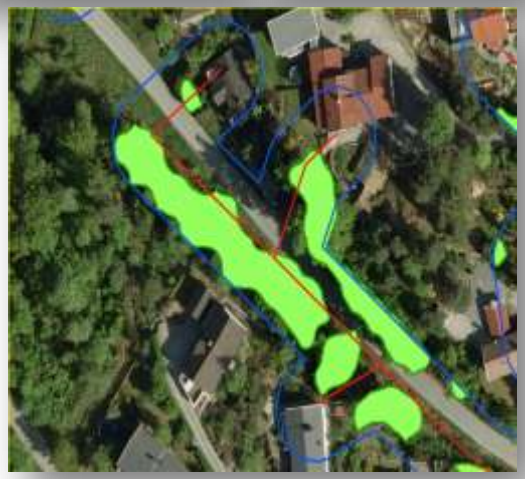
Data Integration



Data Fusion and Analytics







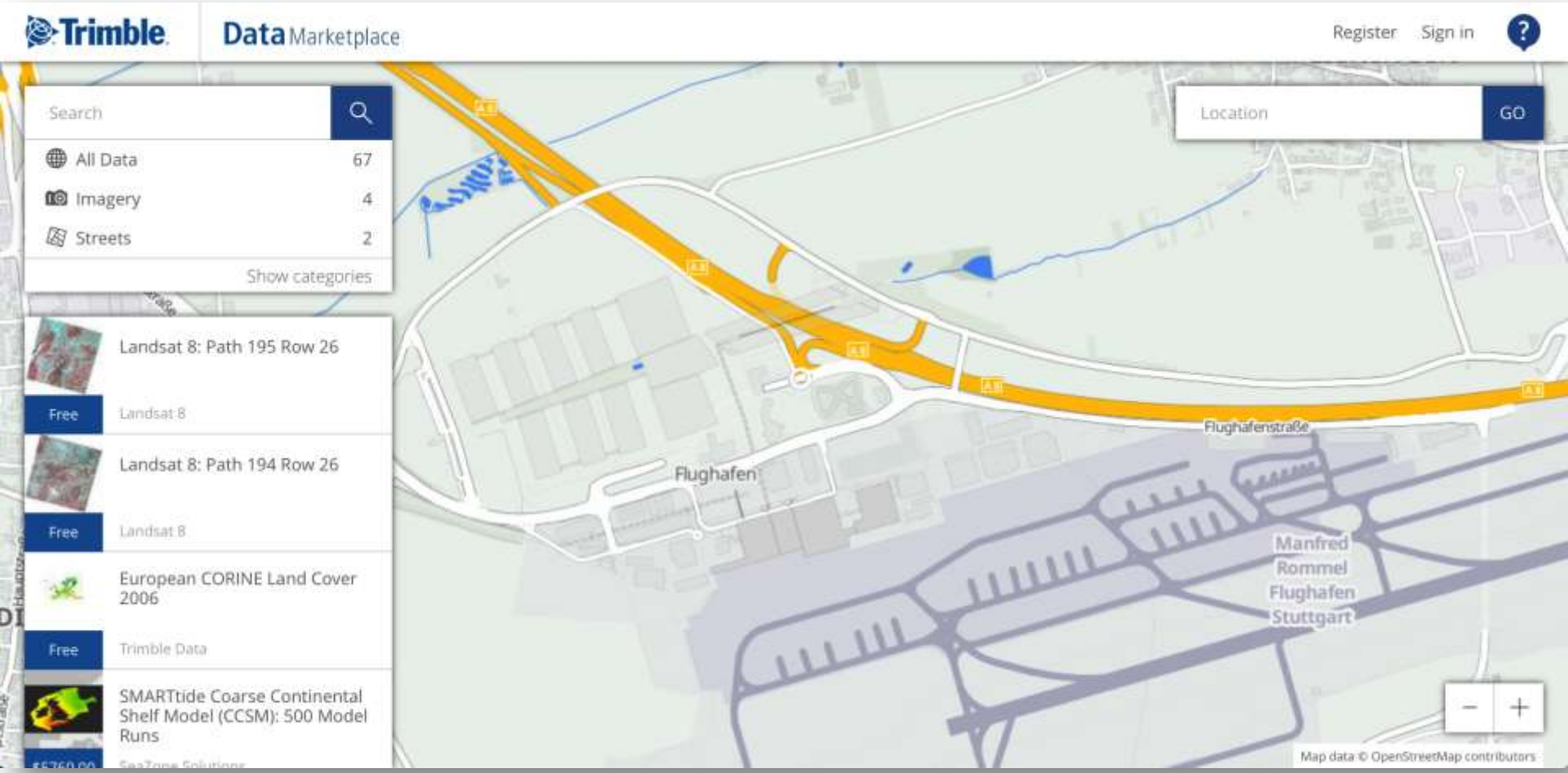
Vegetation Clearances – Power lines

New Buildings in yellow

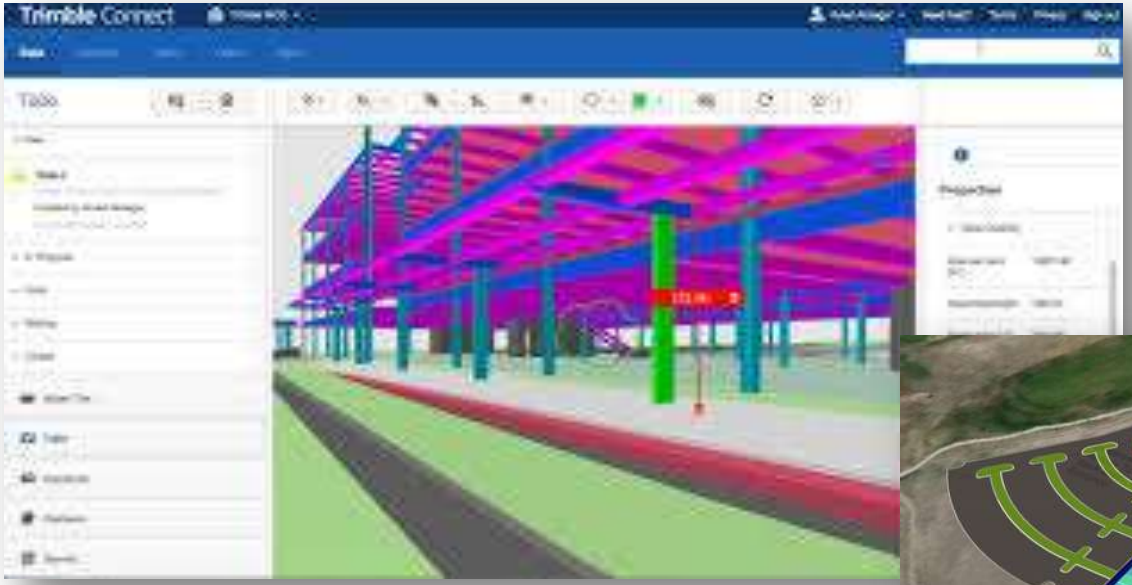
Temporal Changes - Permitting/Planning

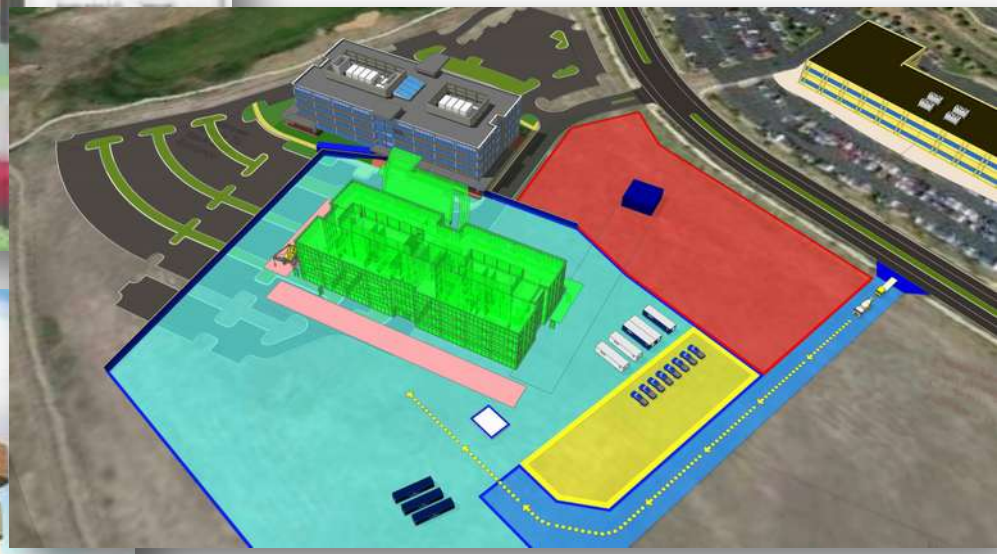
Cloud Computing

Data Access


Trimble
Data Marketplace
Register
Sign in
Search
All Data 67
Imagery 4
Streets 2
Show categories
Landsat 8: Path 195 Row 26
Free
Landsat 8
Landsat 8: Path 194 Row 26
Free
Landsat 8
European CORINE Land Cover 2006
Free
Trimble Data
SMARTtide Coarse Continental Shelf Model (CCSM): 500 Model Runs
Location
GO
Flughafen
Flughafenstraße
Manfred Rommel Flughafen Stuttgart
Map data © OpenStreetMap contributors

World of 3D and Collaboration





SketchUp

Trimble Connect Ecosystem

brings together and allows you to manage

People, Information & Equipment

Reduce cost & increase profit through better information management

Eliminate inefficiencies, wastage, & litigations

Bring transparencies, and traceability

Trimble Connect Ecosystem

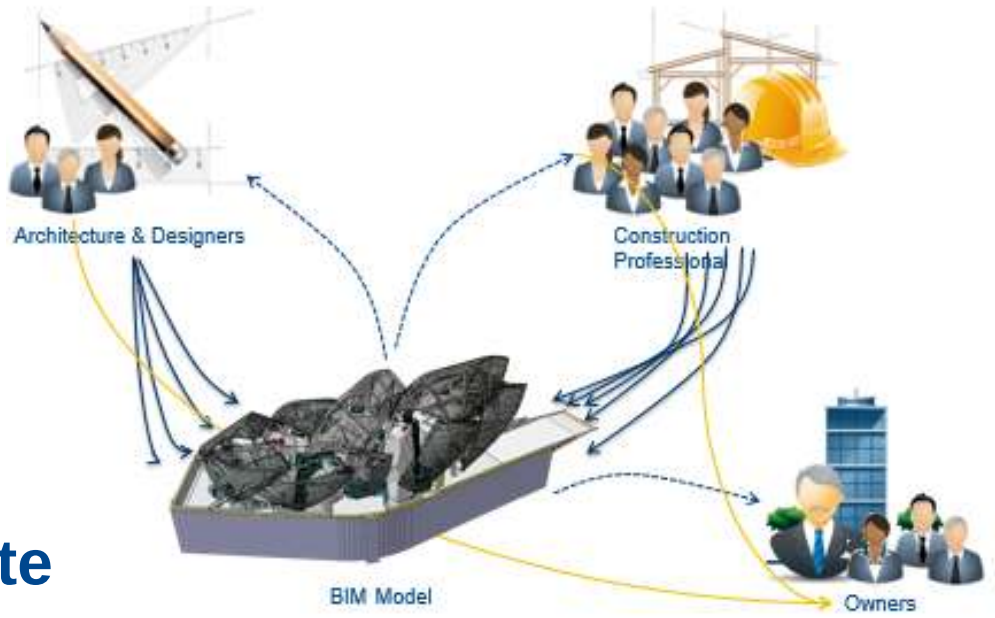
provides streamlined processes for

Your Projects & Business

Brings designers, contractors and operators into a seamlessly integrated work process.

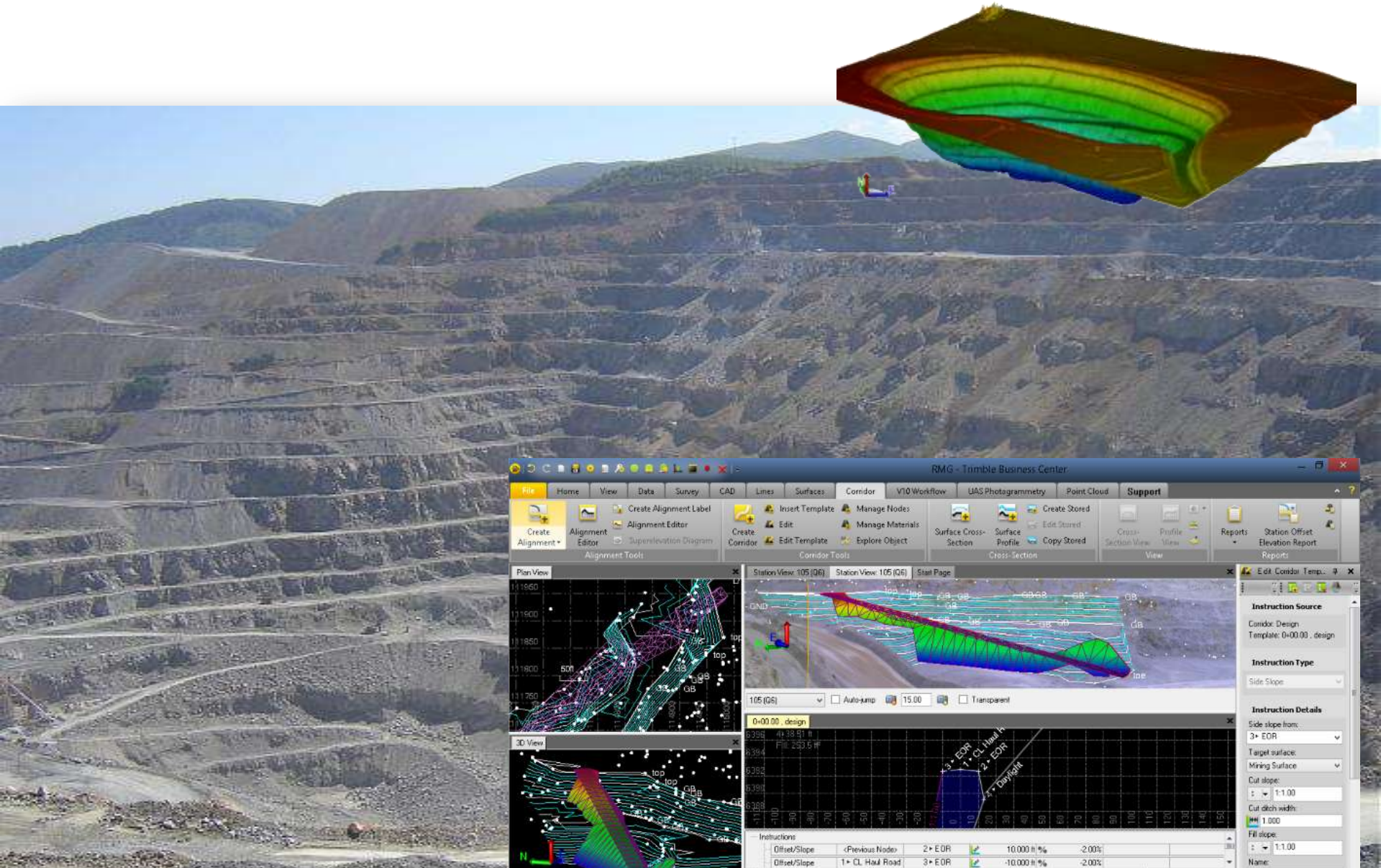
Every stakeholder can share, review, coordinate

Anywhere. Anytime.



APPLICATIONS

Mine Management



Asset Capture - Oil and Gas

Inpho Extended CAD Capabilities

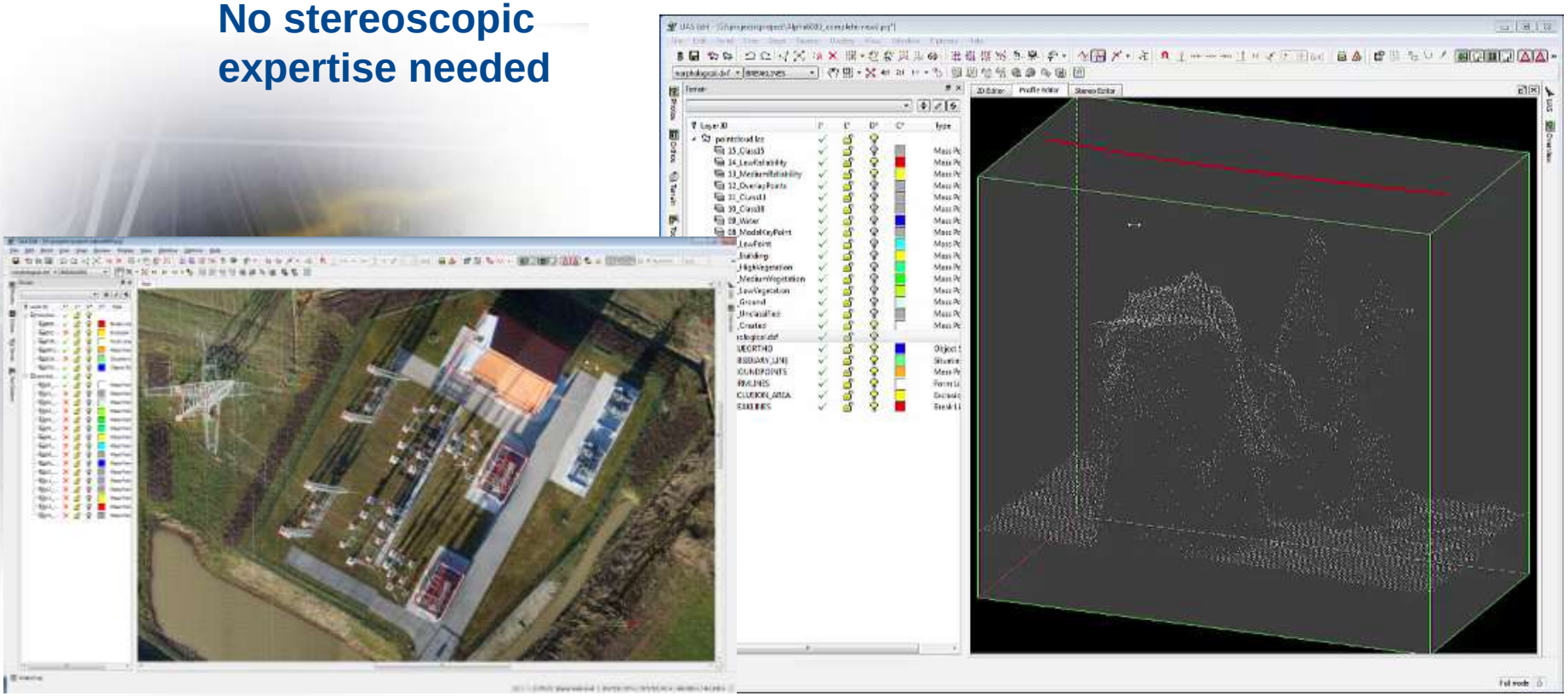
Follow Terrain Mode for linework

- Digitize in xyz without setting the height manually
- Repeatable accurate measurements based on image matching or interpolation

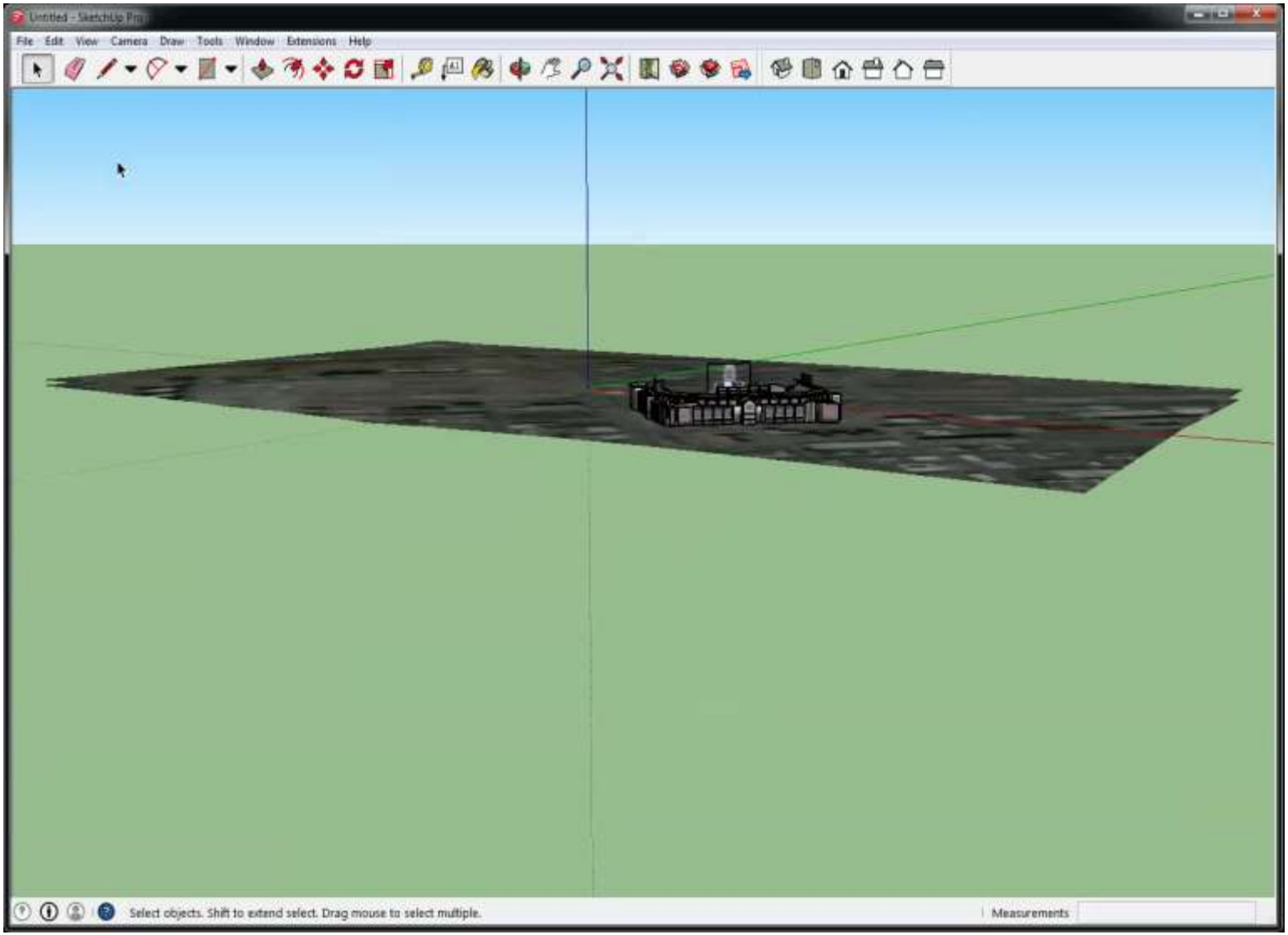
Rematch data to terrain

- Drape 2D data or incorrect drawings to the UAS data

No stereoscopic expertise needed



Data Integration – Visualization



Urban Canopy Analysis

- Boulder County, CO, USA
- Rockefeller Foundation's 100 Resilient Cities (100RC)
- Data Fusion - eCognition
  - Remote Sensing imagery
  - Aerial LiDAR and imagery
  - GIS Ground truth
- Information Extraction
  - Urban canopy footprint
  - Tree type / damage and health assessment
  - Heat and Energy usage assessment

Presserving Machu Pichu

- Flying height above ground ~100m
- Challenging conditions (altitude/weather)
- 1st day: flight > processing over night

Data: Distribution Partner Geosystems & Ministry of Culture

Summary

- Rapidly expanding sources for rich geospatial data
- Geospatial Professionals have the knowledge of how to integrate and link the right data to generate valuable information and results for clients
- Data access, integration, collaboration and extraction are critical to turn big data into actionable information

Finish with a telling quote:

"We quantify and eliminate geospatial unknowns by telling people (and companies) what they have and where it is. The ability to give an entire project team a geo-referenced 360-degree view is an incredible tool. It's important not just for engineers but for other disciplines inside the project as well. We do a lot of long-line pipelines where we work with archeologists, planners, engineers and biologists."

- Jason Jung, CH2M

Thank You!

www.Trimble.com