



DRONECON 2016

Drones in Municipalities



INTRODUCTION

iGlobe – A Background



TOWN PLANNING
MINING

ENVIRONMENTAL
UTILITIES

OIL & GAS
MUNICIPALITY
GOVERNMENT
CONSTRUCTION



AERIAL SURVEY
TRAINING
MAPPING
GIS

TIME LAPSE
SOLUTIONS
RPAS
DATA CLEANUP

HYDRO SURVEY








THEN AND NOW

Then and Now

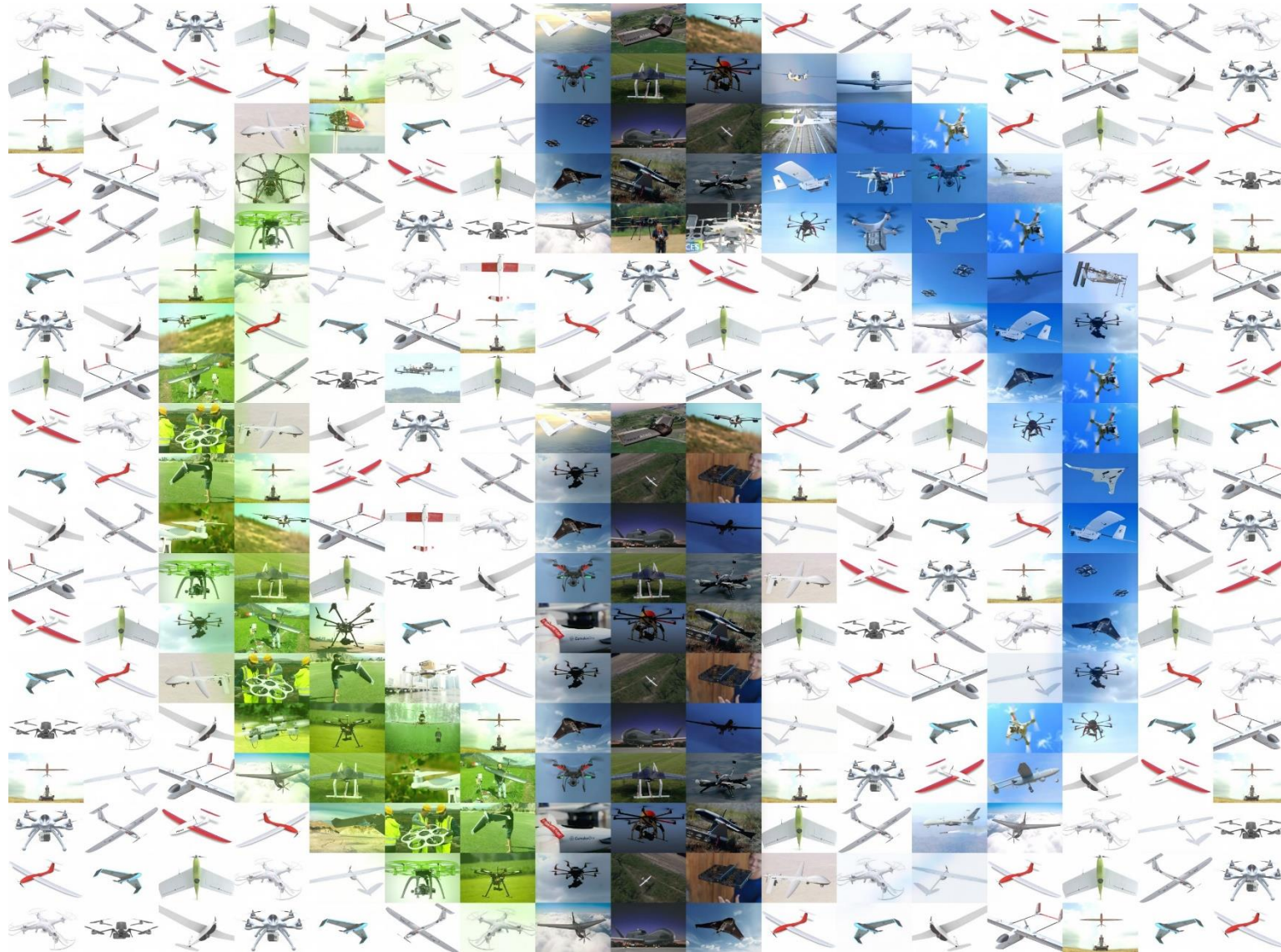


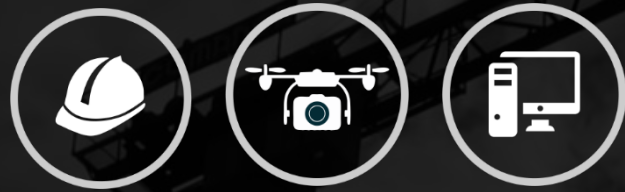
Acquisition Tools



Solution		Advantages	Limitations	Value of information
Total Station		Reliable – Widespread - Price	Only distance and angle measurement Work disruptive	Low: distances & angles
Laser Scanner		3D – High local precision – instantaneous	Monochromatic – Requires calibration & training – Limited density - Price	High: 3D point clouds
Depth field camera		3D – Real time – Price - Texture	Low precision – Indoor only – Proximity to the scene	Very High: colored point cloud (→textured mesh)
Camera / Photogrammetry	 	3D – Texture – Precision – Price – Widespread – No training – No calibration – highly portable	Not real time	Very high: georeferenced textured mesh (→ 3D colored point clouds, DSMs, Orthophotos)

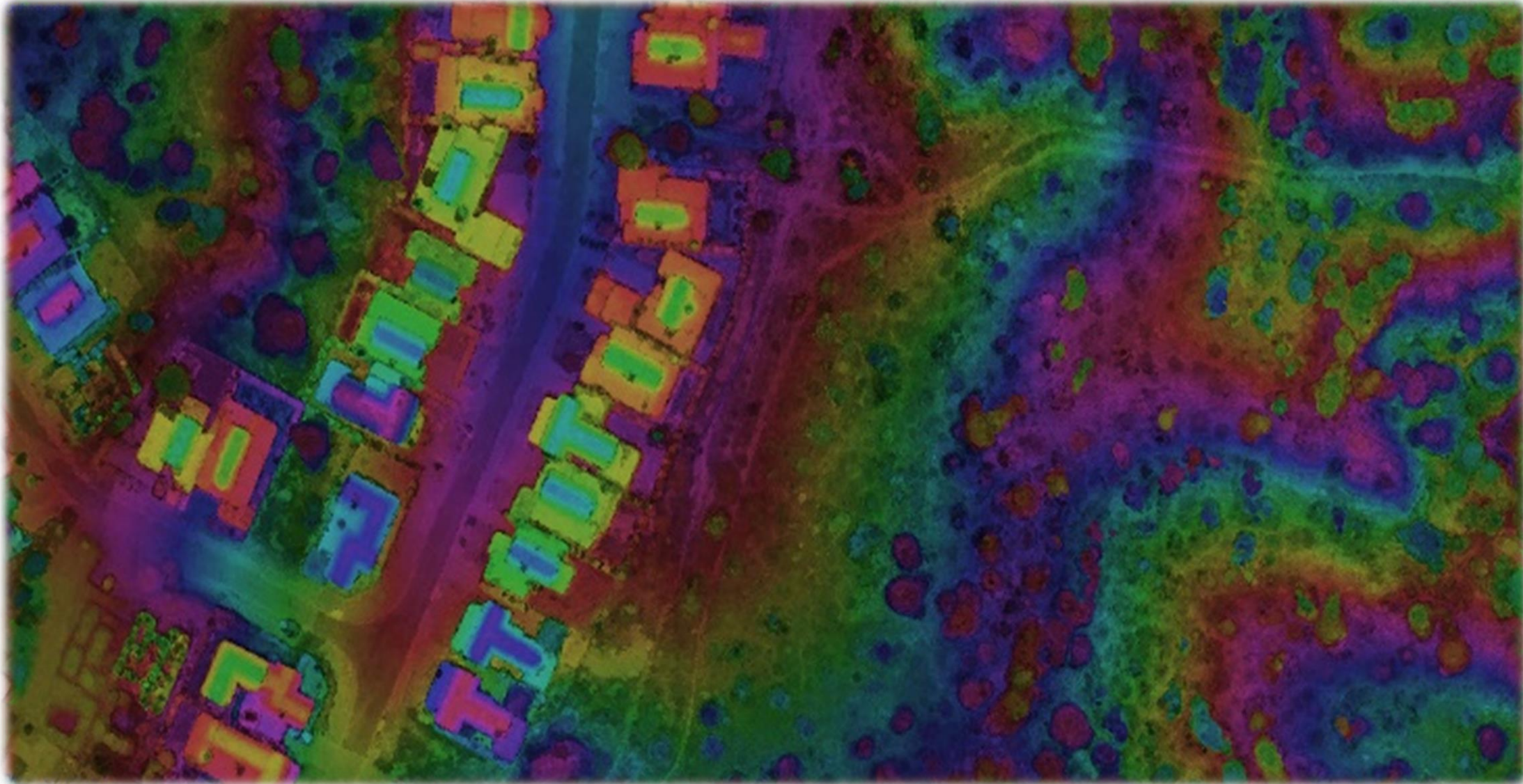
Camera in the air...



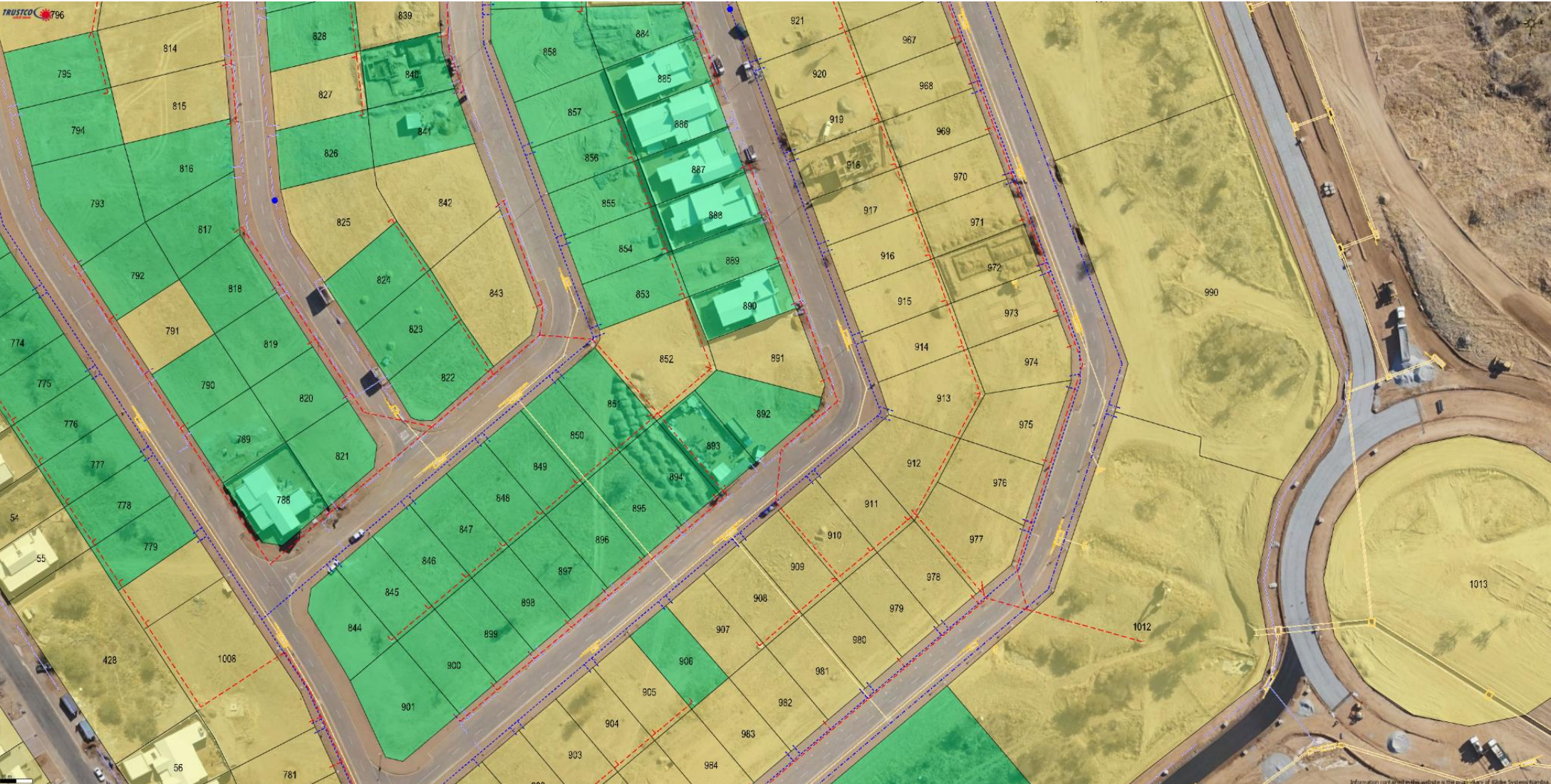


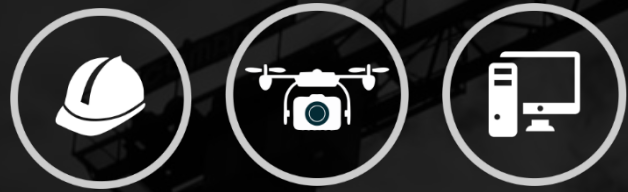
CASE STUDY - NAMIBIA

Case Study - Namibia



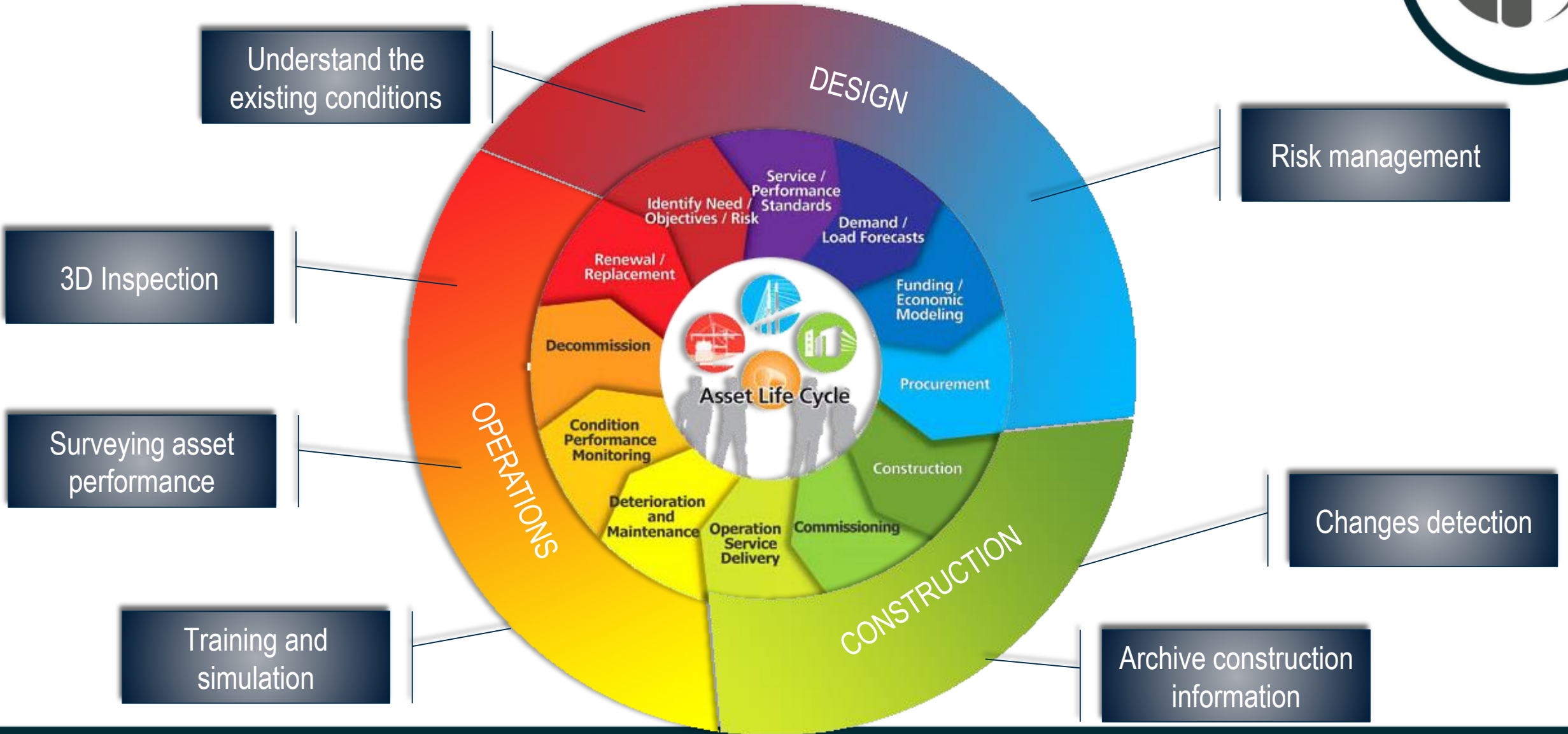
Case Study Namibia





THE FUTURE: GEO-ENGINEERING

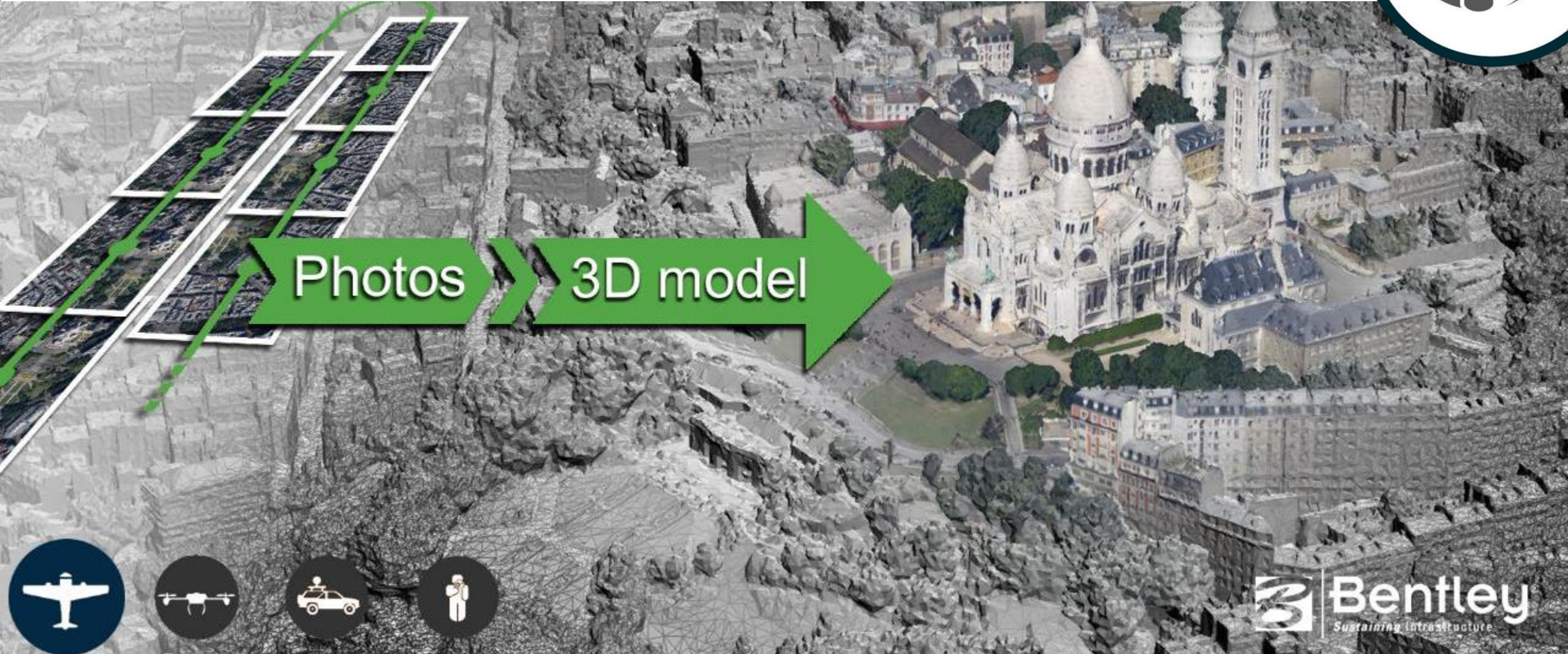
Geo-Engineering with Reality Modeling

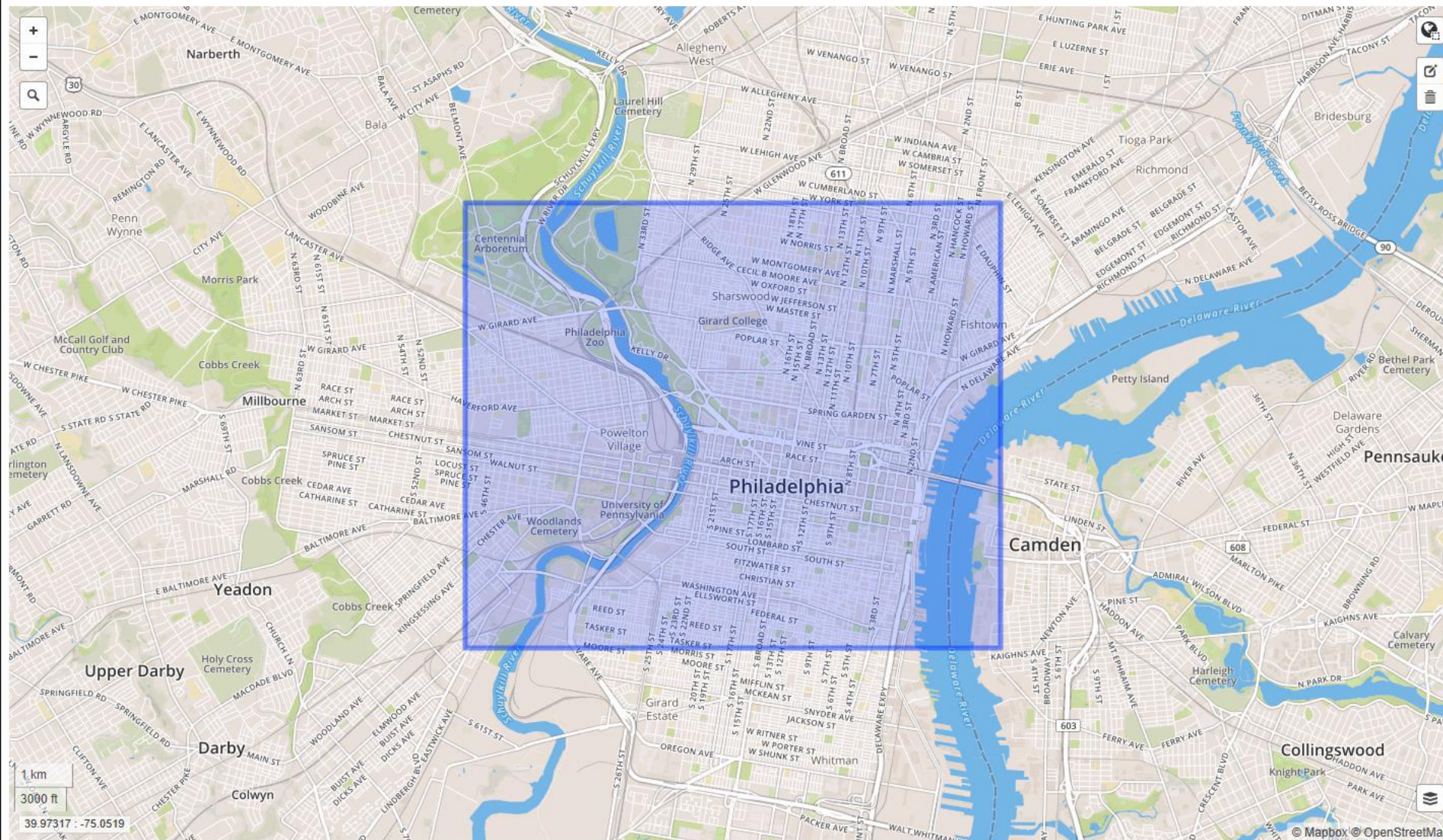


Geo-Engineering with Reality Modeling



From Cities...





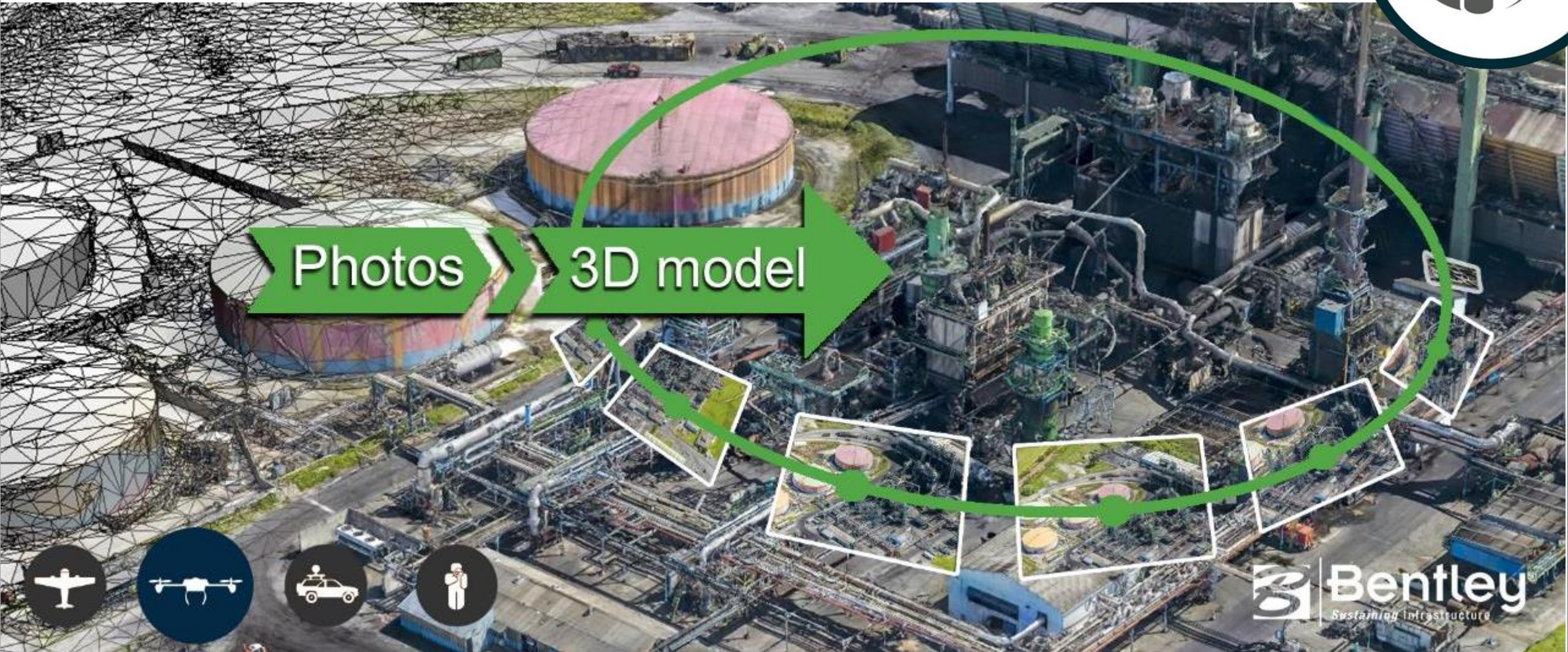
Data classes

Select classes of data that the import should return, at least one class must be selected.

- Terrain
- Imagery
- Roadway
- Building
- Hydrology

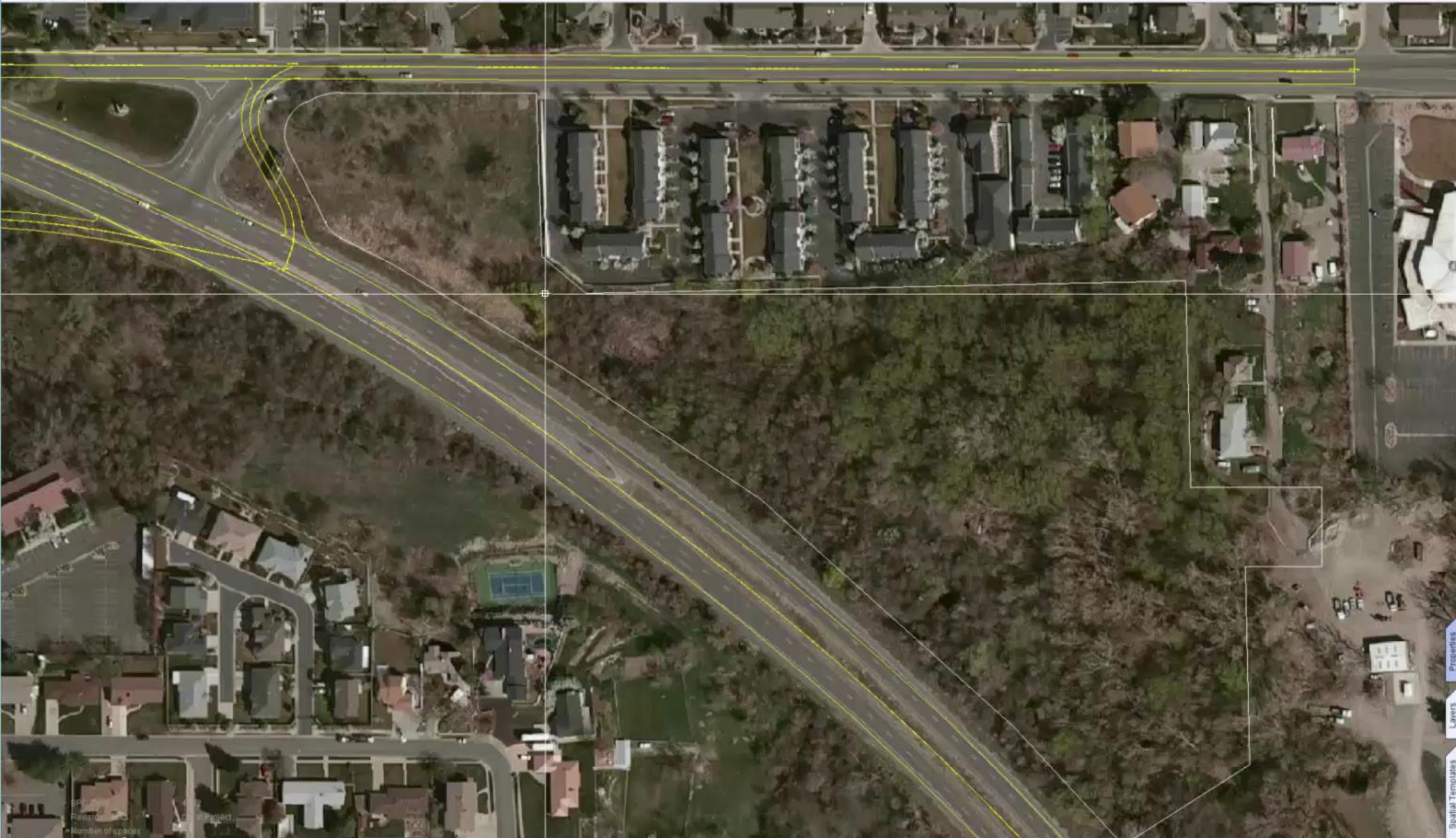
Defined concept area: 49.645 km²

...To Sites...



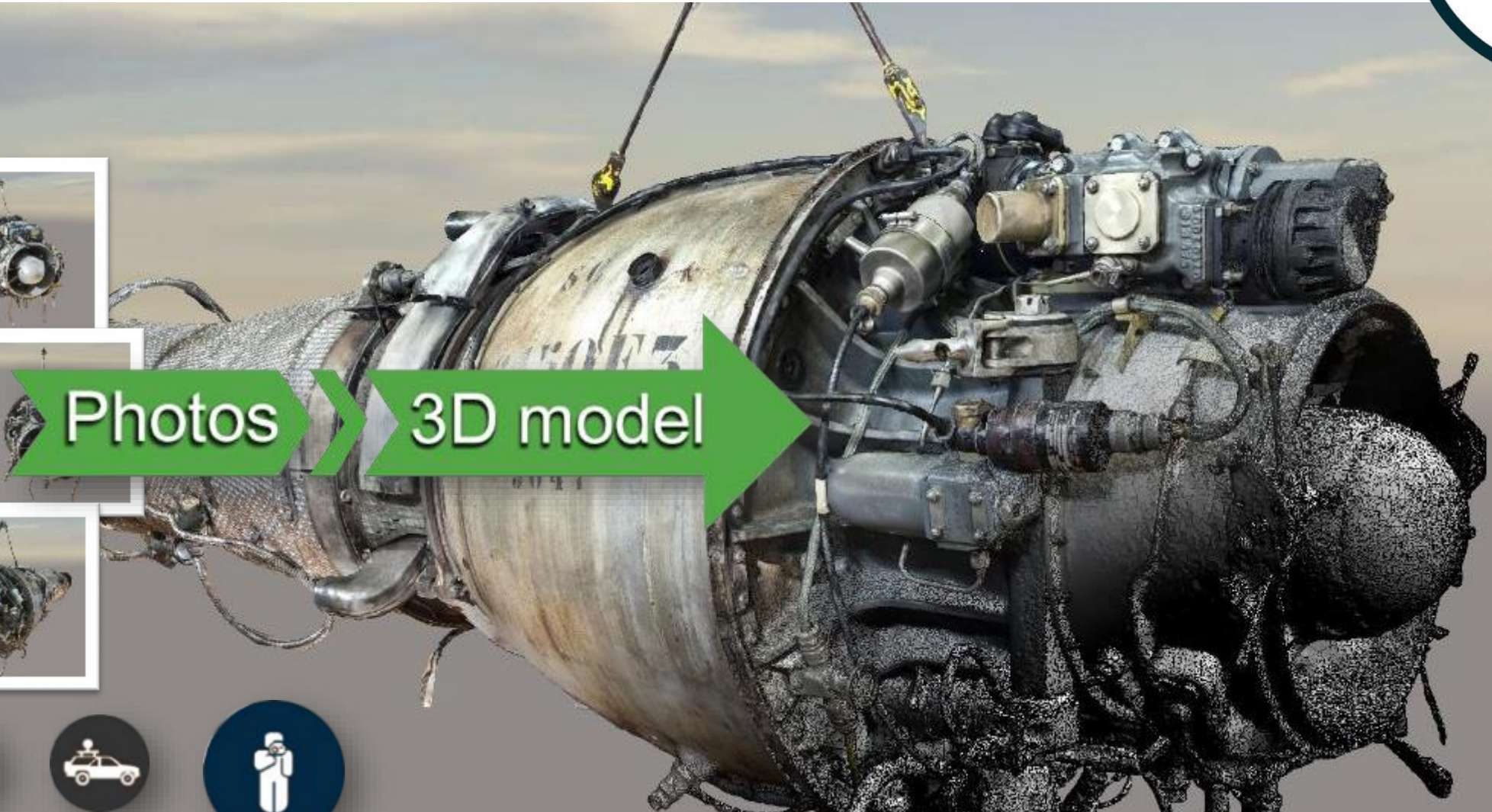
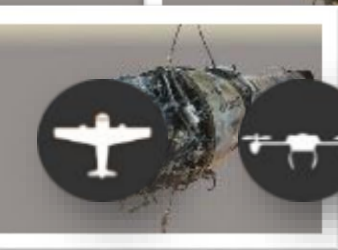
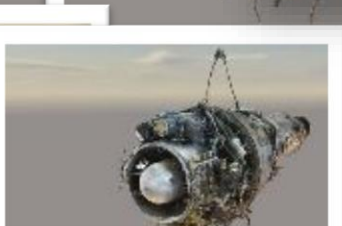
Property Boundary Building Parking Lot Area Direction Path Space Point Island Point Parceling Drive Line Assign Block Drive Path Street Path Sidewalk Path Vehicle Path Route Vehicle Path Point Landscape Area Outparcel Area Other Area

Layout Solver Grading Solver Utility Solver Solvers



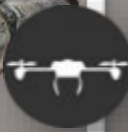
Spatial Templates Layers Properties

To Equipment!



Photos

3D model



Asset Management





THANK YOU

CENTURION

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