

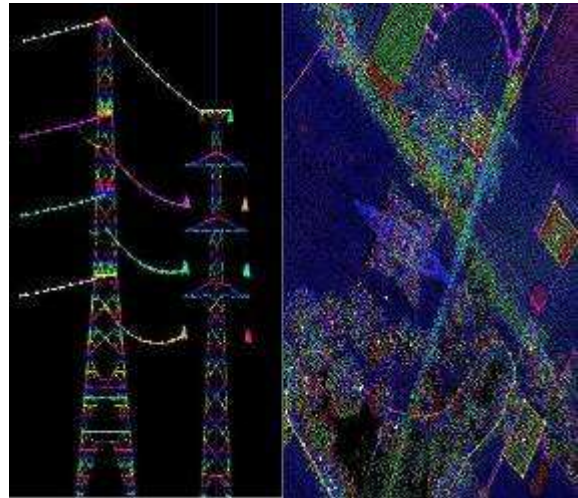
## Project: LIDAR Data Processing of European Cities

### Client: A global leader in Surveying and Engineering Solutions

Our client is a land surveyors and engineering company specializing in advanced measurement technologies. Areas are: high accuracy mobile mapping, aerial laser scanning, 3D laser scanning, total station, GPS and Ground tracer.

Our client has developed custom GIS applications. These are procedures that operate on top of commonly used GIS applications. This makes it possible to manage data gathered in masses, to examine possible reporting which perform almost automatically.

Paradigm was chosen to support them in LIDAR data processing of few European cities.



### Objective:

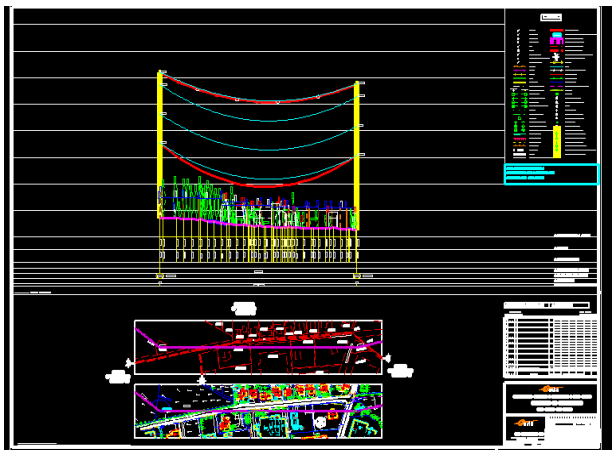
To provide accurate model & map for transmission lines, allowing utility to measure the shape of the ground below the transmission line, the position of the towers and poles, the sag on the wires, and the up-growth of any vegetation incursions or other possibly illegal incursions into the right of way.

### Services:

- Man made and geographical features are digitized using LIDAR data in flip7 software. Ortho images were sent by the client for identification of features.
- Firstly wires(powerline) and features(ie buildings,fence,roads,poles) are digitized upto 100m on either side of powerline.
- Digitized wires are used to prepare input files which is used by the client to prepare sag value of wires which is due to temperature, wind and self weight.
- Digitized features are sentt to the client for field check and this is called as preliminary GP.
- Then we receive the preliminary GP with correction in objects(addition or deletion of object) this corrected object has no z value (no height),so we have to check this file again using lidar data to fix the z value for the missed data on that particular area.
- Final file prepared is used for the preparation of LP(longitutinal profile or CELEV), GP(ground profile or PMLEV).
- Final microstation files which contains LP,GP and cadaster in the sheet(GBLEV).

### Benefits:

- LiDAR technology has demonstrated that speed, high resolution and accuracy are benefits that can be used for transmission power line assessment
- LiDAR is an effective tool that dramatically improves the efficiency of the current workflow used by power line companies.



### Software Used:

Flip7, Point Cloud, Polaris, Auto CAD & Microstation

**Technology:** LIDAR

**Area of Interest:** European Cities

**Cities mapped :** Major cities in Belgium

**Duration :** Jan 2002 – On going

**Team Size :** 10+