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Semi-automatic classification of power lines by using airborne LiDAR

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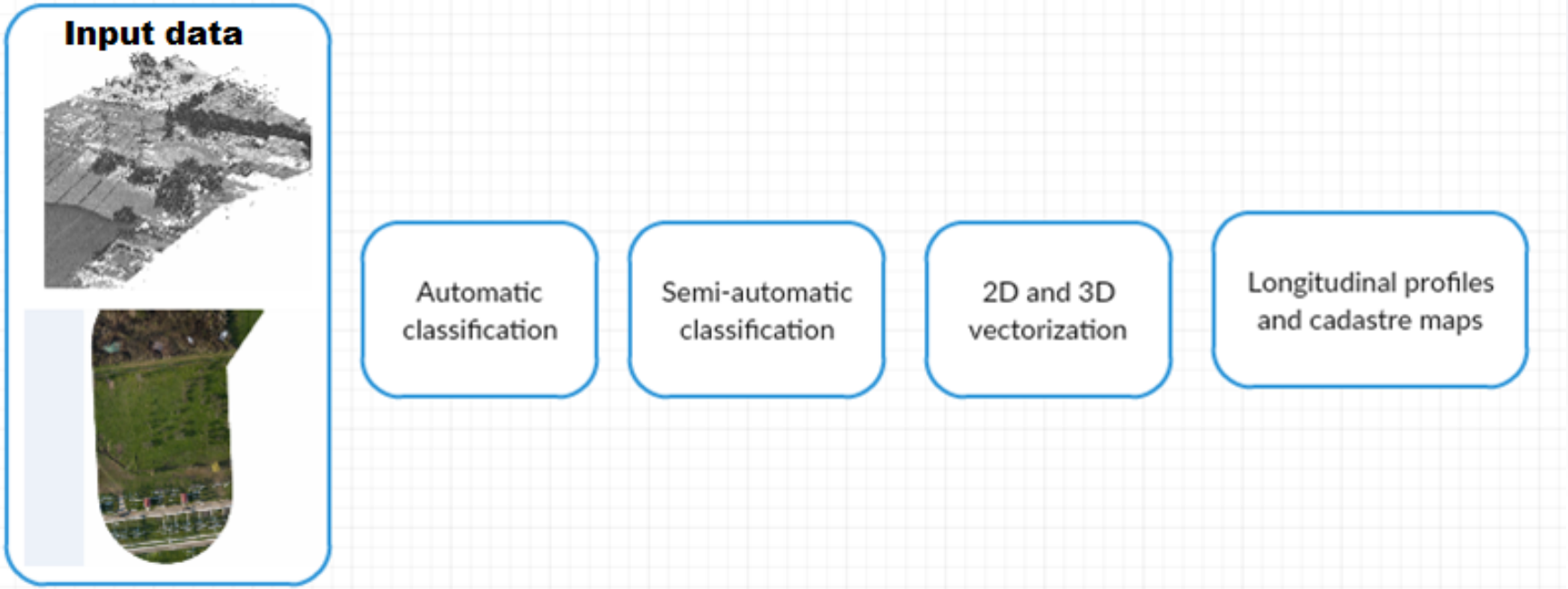
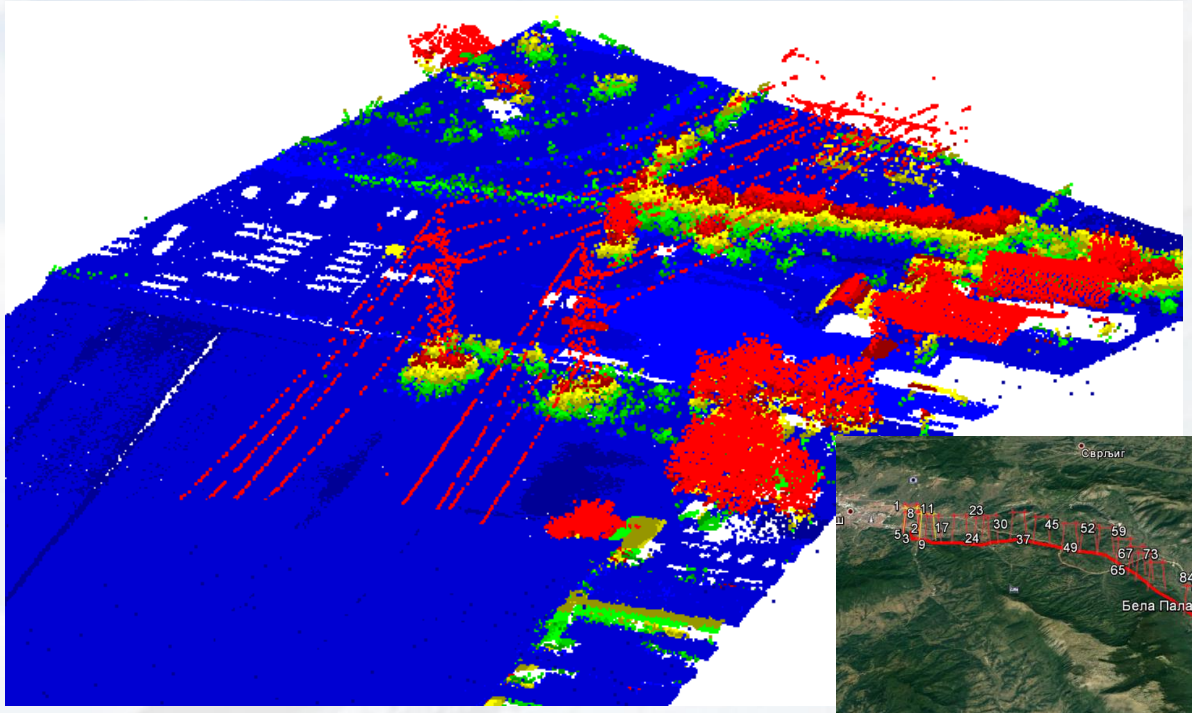
Introduction

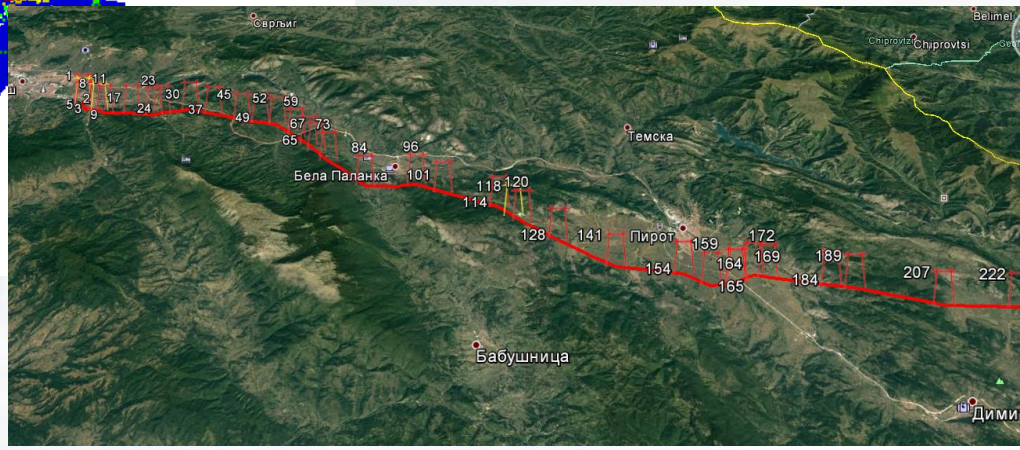
- Mapping of power lines for cadastre use
- LiDAR data
- Fusion of different methods for data extraction
- Problems with methods
- Obtained valid and accurate data

Workflow


Input data
Automatic classification
Semi-automatic classification
2D and 3D vectorization
Longitudinal profiles and cadastre maps

Used data




Сврљиг
Belimel
Chiprovtsi
Темска
Бела Паланка
Пирот
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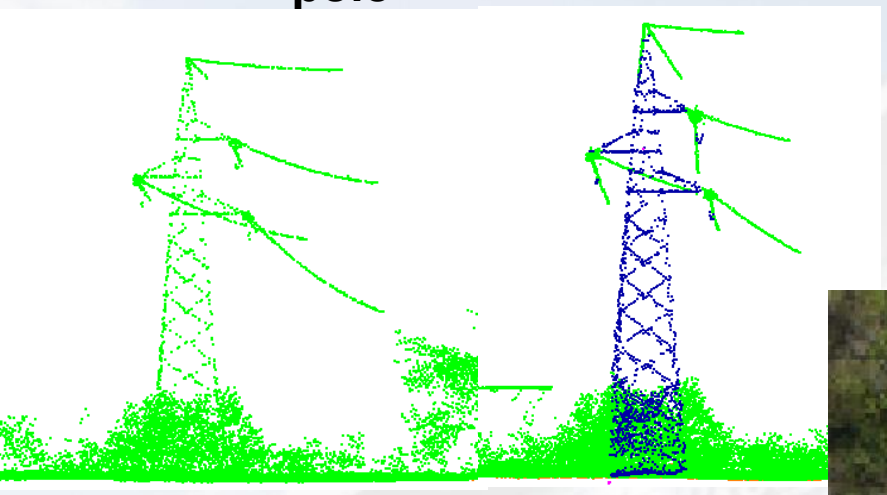
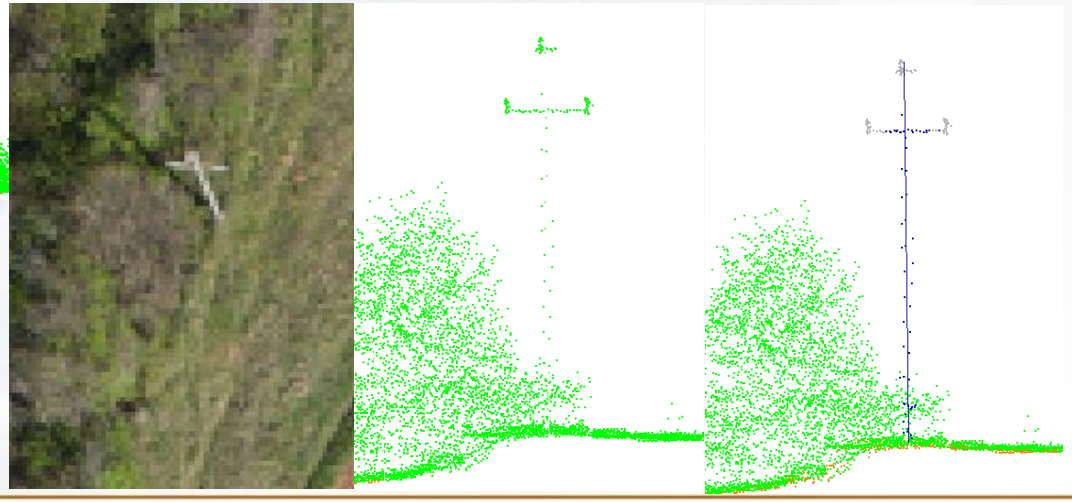
Дими

Misclassified points

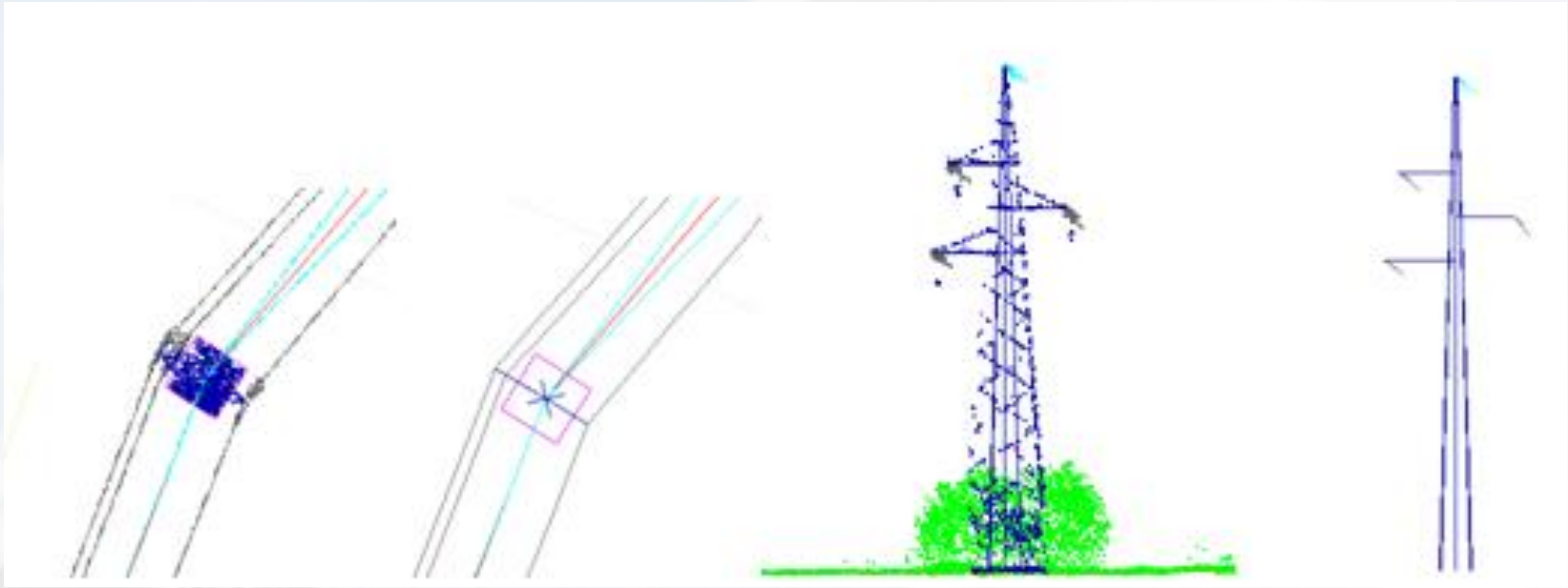
misclassified points of pole



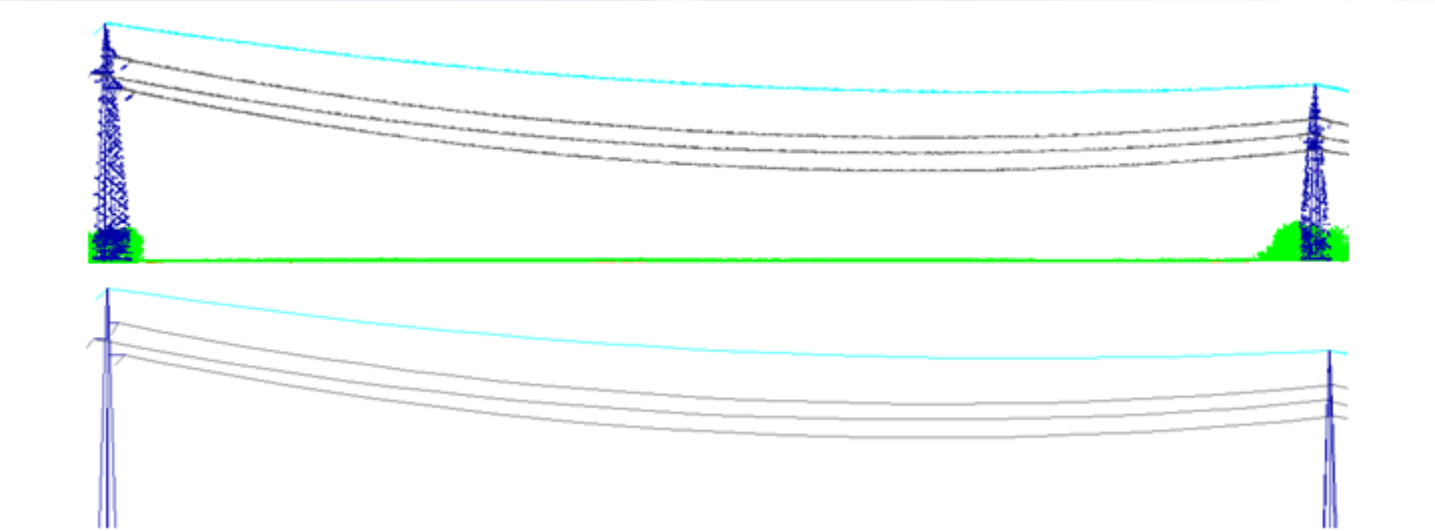
points close to vegetation that belongs to pole



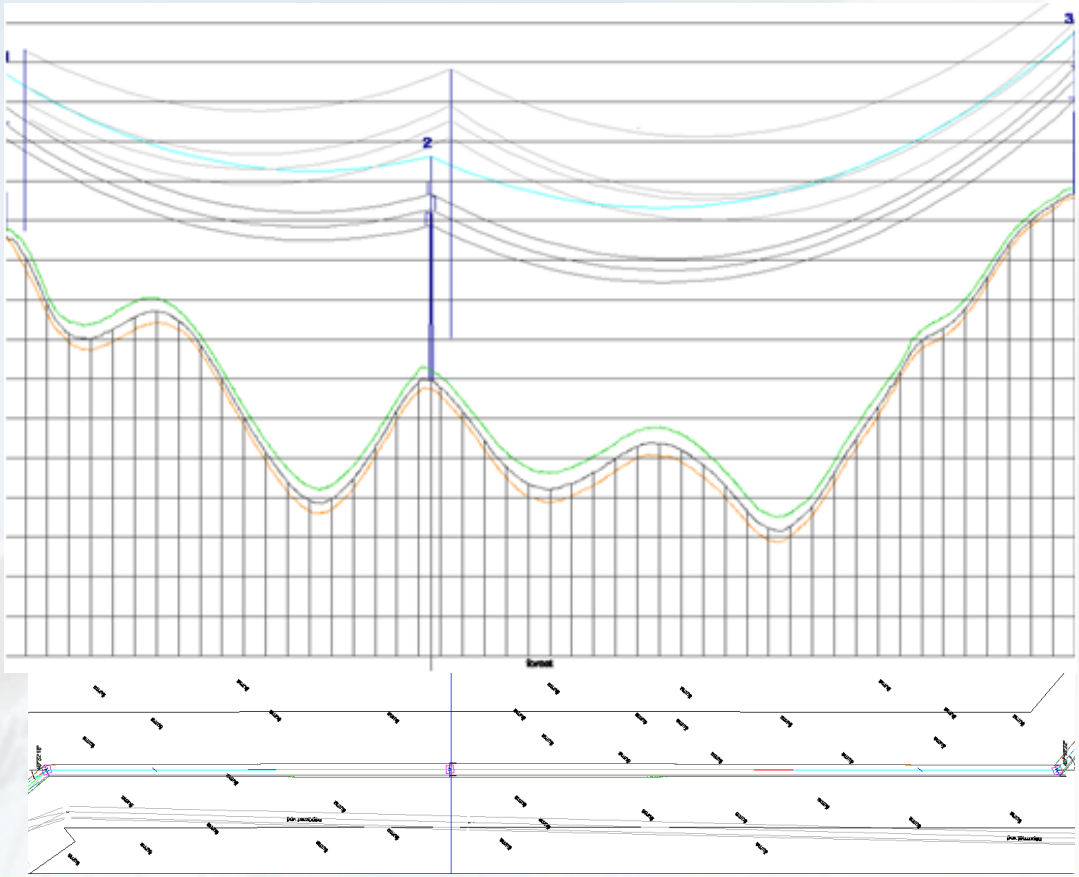
2D and 3D Vectorizaton of poles



3D Vectorizaton of poles and wires



Longitudinal profile and cadastre map



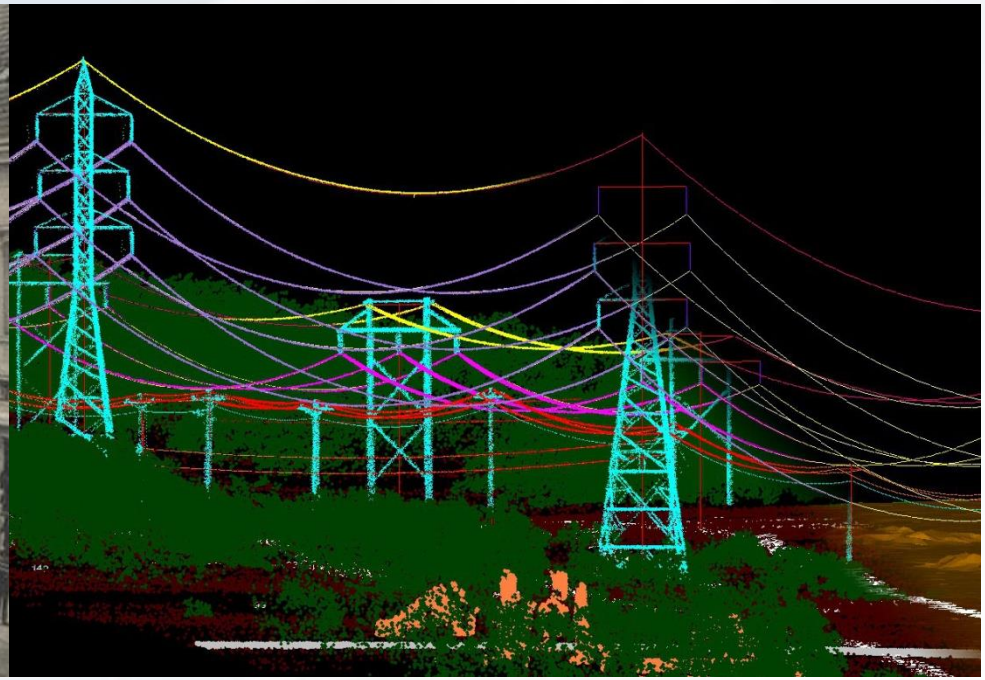
Conclusion

- Valid informations for cadastre
- Precise i accurate data used in Electricity distribution infrastructure

Future work:

- Will be focused on finding the ideal solution for semi-automatic classification and vectorization.

-Solution should be basic automatic classification that would classify much more point classes that automatic classification could not classify.

Past

Future is here