

TRANSMITTING ENERGY.
MAINTAINING BALANCE.



VEGETATION MANAGEMENT SYSTEM



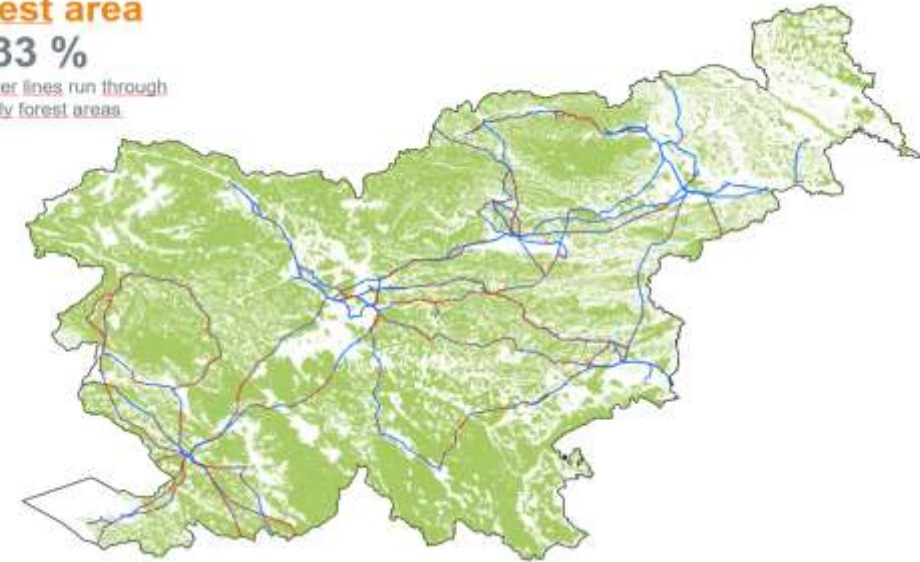
Project goals

- ▶ **Integration** – Easy integration with enterprise asset management software.
- ▶ **Risk management** – The timely identification and removal of encroaching vegetation reduces the risk of network interruptions caused by vegetation.
- ▶ **OPEX optimization** – Reducing costs through the improved planning of resources, tools and external services.
- ▶ **Optimal intervals** – Optimization of maintenance intervals through the optimization of the frequency and types of activities.
- ▶ **Simple administration** – The straightforward design simplifies the handling of complex information and use.
- ▶ **Sustainability** – Optimizing activities can minimize the impact on nature and improve land usage.
- ▶ **Network reliability** – A reduced number of outages caused by trees and planned outages for regular vegetation maintenance.
- ▶ **Analytics** – The application enables a detailed view and analysis of data on vegetation and activities.

Forest area

33 %

of the power lines run through densely forest areas.



Data sources



LIDAR



Cadaster



Tree species



Weather



Protected areas



Drones



Satellite

▶ Protected areas

- ▶ Protected woods
- ▶ Nature 2000
- ▶ Ecological important areas
- ▶ ...

▶ Weather

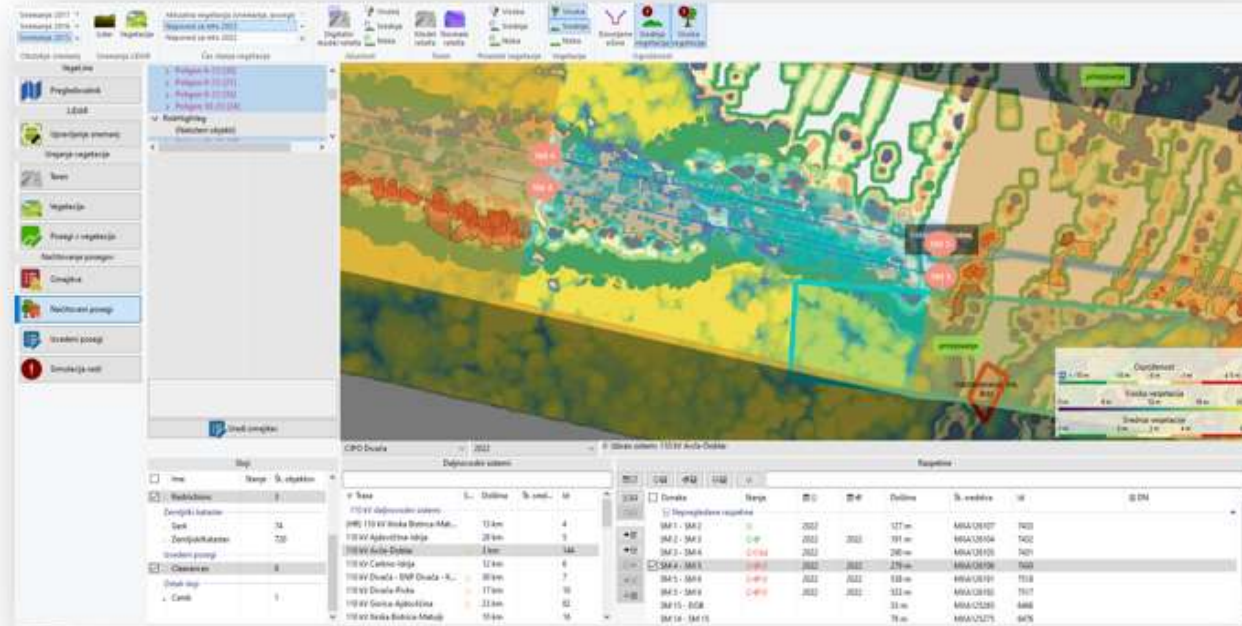
- ▶ Air temperature
- ▶ Precipitation
- ▶ Sunshine duration

▶ Land

- ▶ Slope
- ▶ Soil type

Executing activities

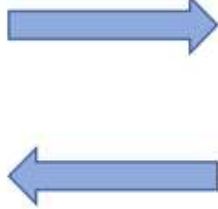
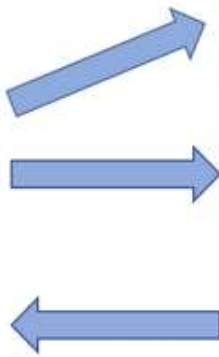
Execution



Geographic information system

Enterprise asset management

Mobile application



Successes:

Risk management
Optimal intervals
Simple administration
Sustainability
Network reliability
Analytics

Failures:

Integration
OPEX optimization

It's not so much a failure in integration and optimization, but rather a failure in meeting the timeline :)

The most distinguishing feature is the use of **predictive analytics and advanced **regression models** to predict vegetation growth in the next maintenance cycles.**

