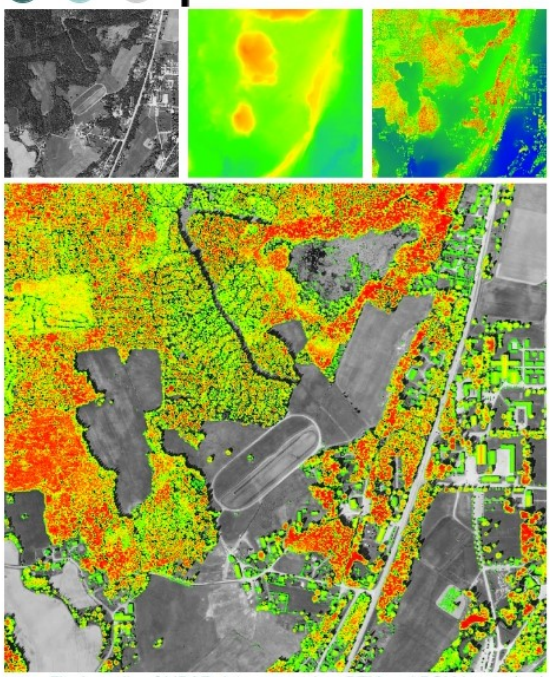
Lidar data processing

Automated mapping of forest cover density and changes



Final results of LiDAR data processing: DTM and DSM layers (top) and filtered forest cover & buildings on top of aerial photo image (bottom)

Users: EPA, forestry enterprices, emergency services

Need: Monitoring of forest cover, floods, urban sprawl, etc. needs frequent updates of precise surface scanning

Challenge: Automated LiDAR data processing not available as an affordable & complete analytical solution

Initiative: Automated processing of a large amounts of LiDAR scanning data, combined with operational mapping and statistical analysis toolbox, developed as a complete open-source software solution, focused on efficiency, processing speed and flexibility of analysis. It should bring LiDAR technology closer to the end-user.

Results: Filtering of LiDAR points cloud, extraction of DTM and DSM, flattening of water surface, cleaning the layer of trees and buildings, extraction of tree height classes, forest change detection & statistical analysis.

Service provider: GEOMATRIX UAB (www.geomatrix.lt)