Logistics Route Optimization

project by Denis Kleptsov

Table of contents

Logistics Route Optimization in Estonia

About the project

Timeframe	March 17–23, 2025
Team	solo project by Denis Kleptsov
High-Level Goal	Reduce delivery route distances by ≥15% using clustering and optimization methods.
Toold & Data	• Tableau, Python, Excel • 2 datasets (885 delivery records + 20 route logs) • Geocoding via HERE API • Route planning via OptimoRoute

Context & Summary

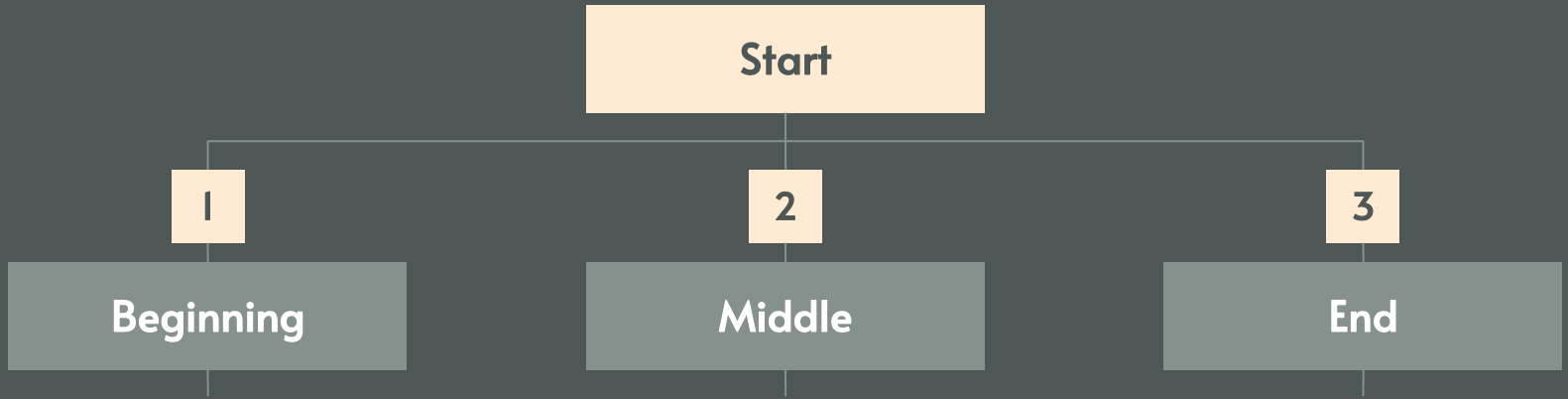
- Textile delivery operations in Estonia (urban and rural)
- Focused on a single transport partner with a high volume week
- Evaluates delivery efficiency and route structure

Main Question

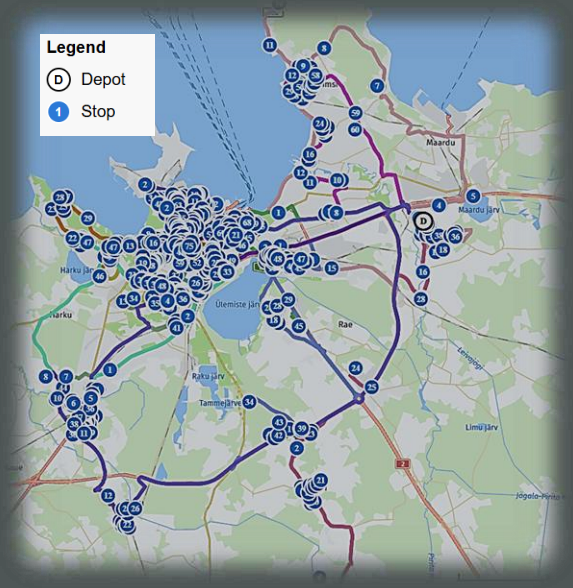
I

Can geographically clustering customers and optimizing routes reduce travel distance and time?

The Story — project flow

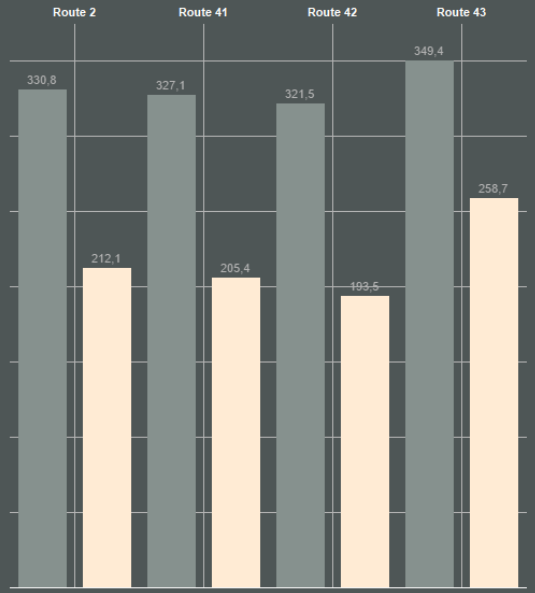


Visual Outputs & Interpretations



- Legacy Routes
- Optimized Routes

Optimized routes reduce the total distance from ~1300 km to ~850 km, only on 4 Routes, reducing the driving load by **33,17**%.



Four geographic clusters were formed from 885 delivery points. This zoning supports logical and shorter delivery paths.
For more info, **click here**

Resources & Deliverables (with links)

Presentation

Reserch Report

Cleaned & merged dataset (CSV)

Python notebooks for clustering & optimization

GitHub Repository

Tableau Public Dashboard

Local MAP file with routes

Thanks

If you have any questions?

denis.kleptsov @gmail.com