

Optimizing the separate waste collection in the Győr region

CHALLENGES: separate waste collection optimization

MATHEMATICAL AND COMPUTATIONAL METHODS

PRODUCTIVE SECTOR: logistic

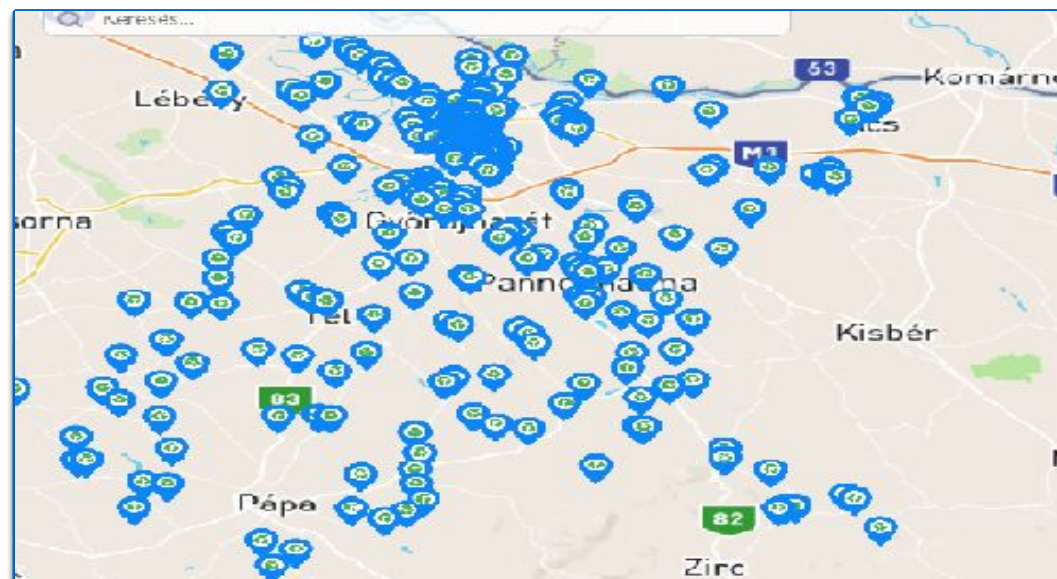
PROBLEM DESCRIPTION

GYHG collects the separate waste in the Győr region. A weekly plan of the garbage trucks that yields no working overtime has to be determined.

- The problem is formulated as a mixed integer linear programming problem.
- Data processing was done by Python.
- OpenStreetMap was used to produce the time and distance matrices..
- The mathematical models were formulated in GAMS and solved by CPLEX.

CHALLENGES AND GOALS

Determine the optimal routes of the trucks and find out whether the current fleet size is sufficient to operate the waste collection without working overtime.



Location of the separate waste collection islands.

