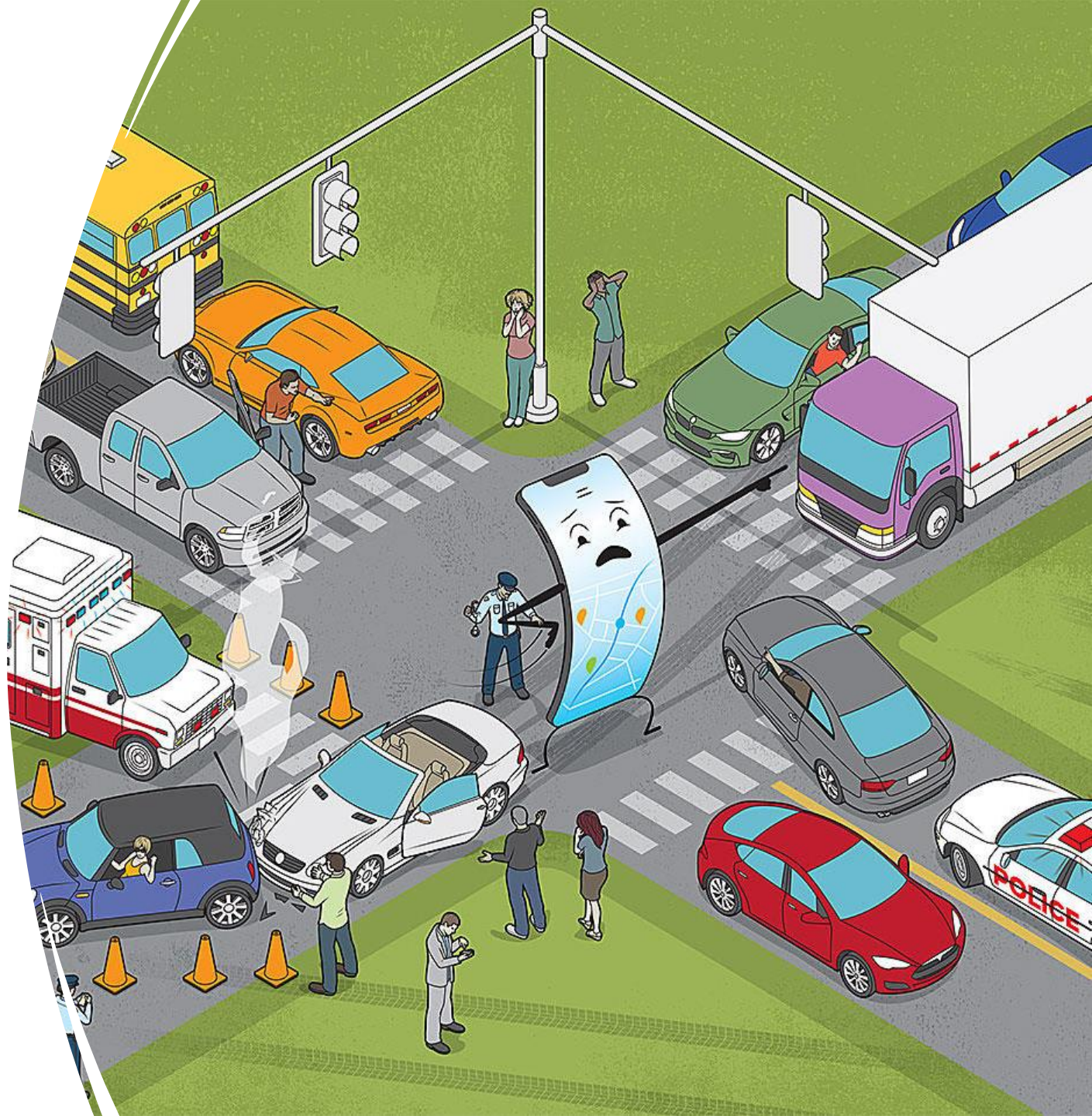


TRAFFIC PREDICTION

**LEVERAGING MACHINE LEARNING TO FORECAST TRAFFIC
CONGESTION**

BACKGROUND

- Increased in travel times
- Fuel consumption
- Pollution
- High stress when commuting



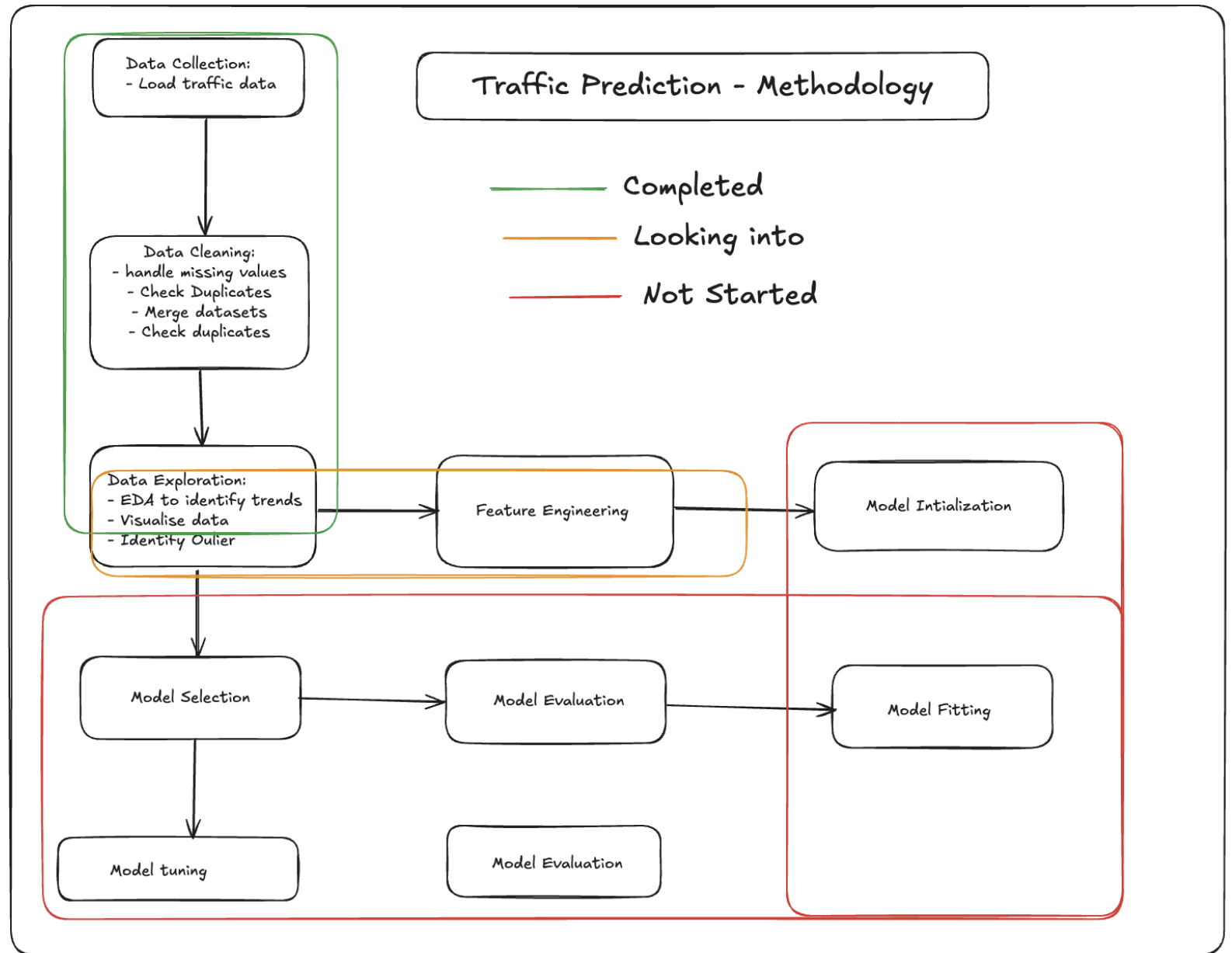
Who Benefit From this project

- Local Authorities: drive insights to plan and implement measures to mitigate traffic.
 - Reduce pollution
- Commuters: better planning, less traffic and reduced stress
- Policy Makers

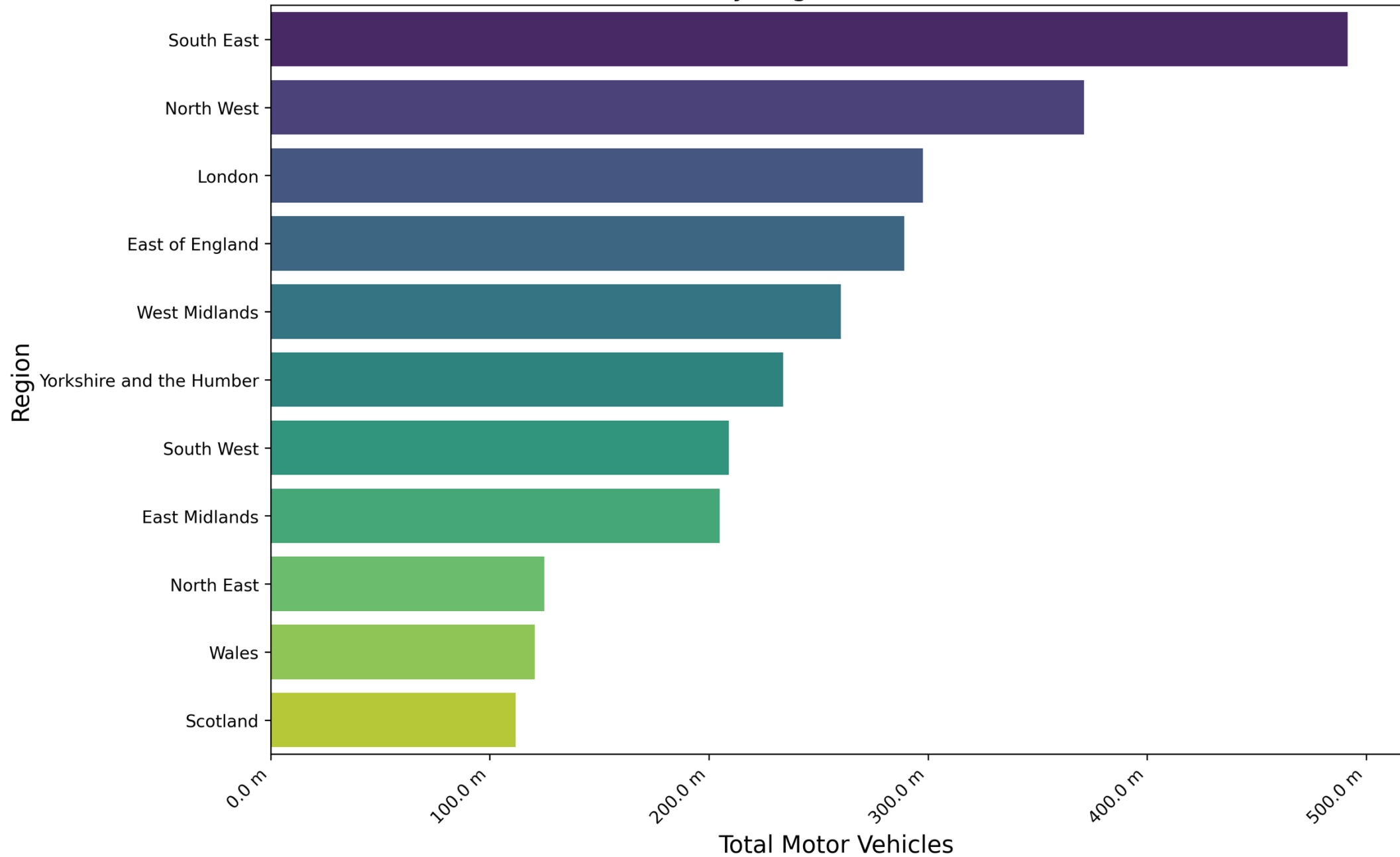
Data Dictionary

- Collected 2000 – 2023
- Local Authority Traffic Estimates (6353, 8)
- Raw Traffic Count Data (4960860, 34)
- Datatypes:
 - Int64
 - Object
 - Float64
 - datetime

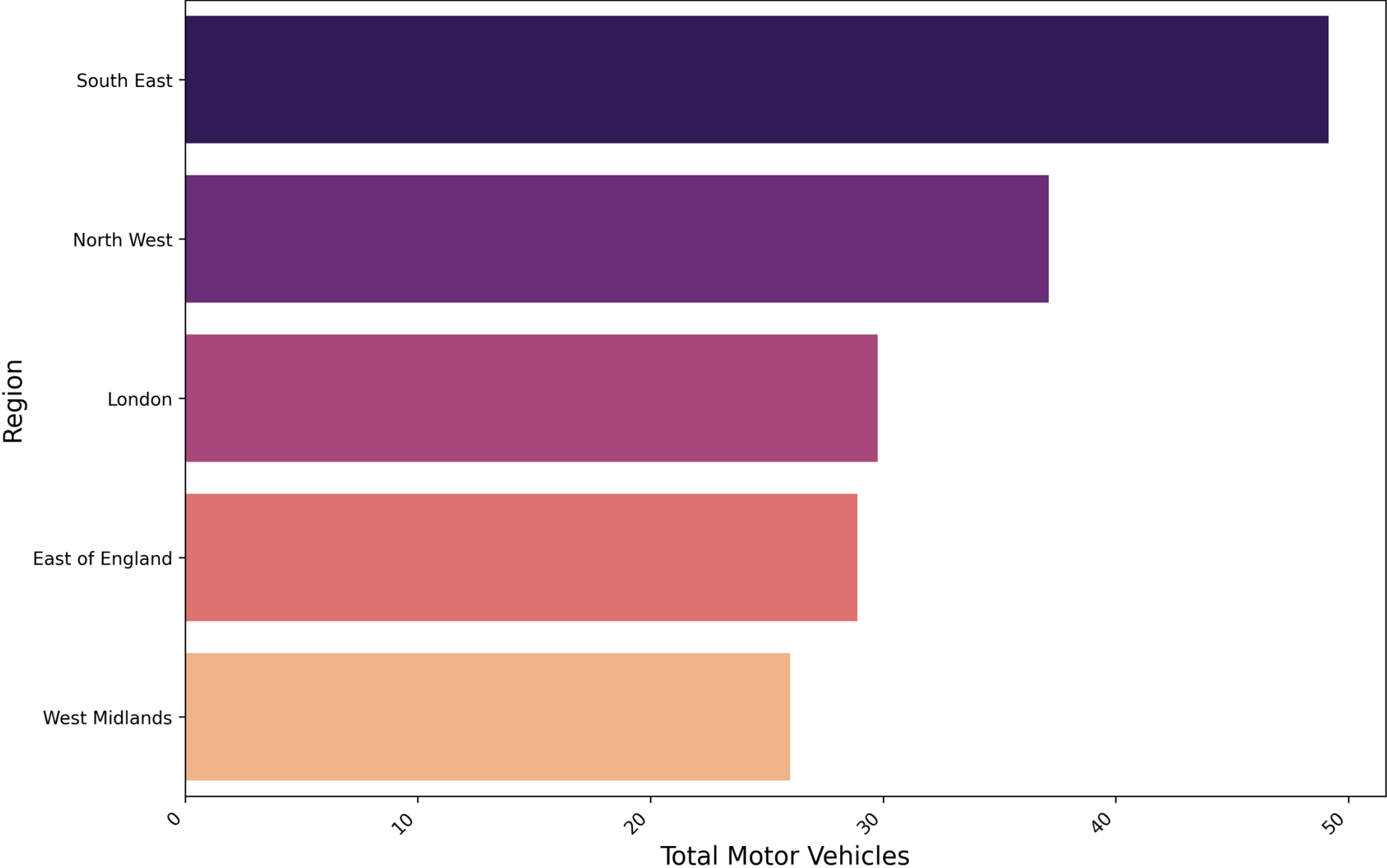
Methodology



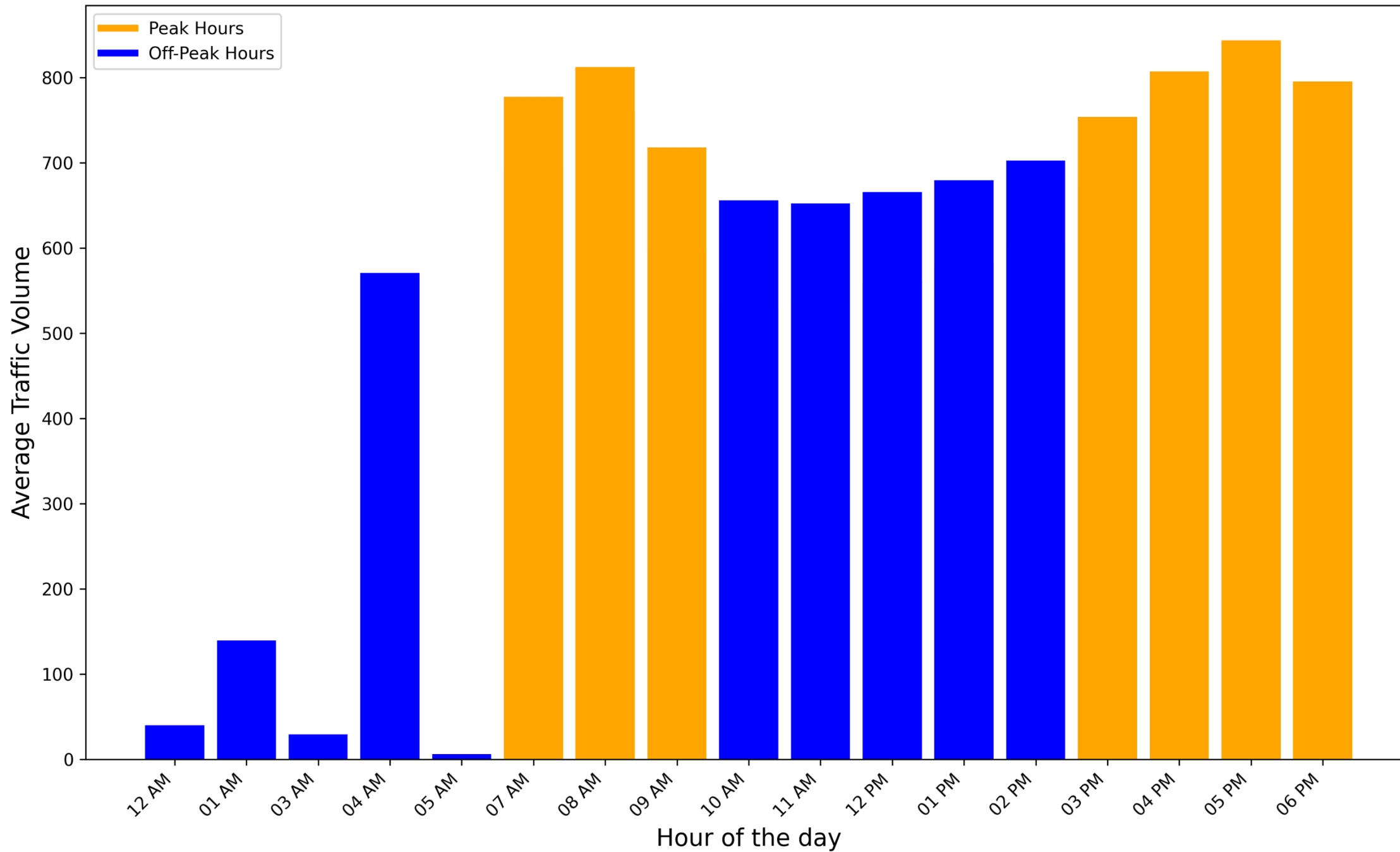
Total Traffic by Region (All Motor Vehicles)



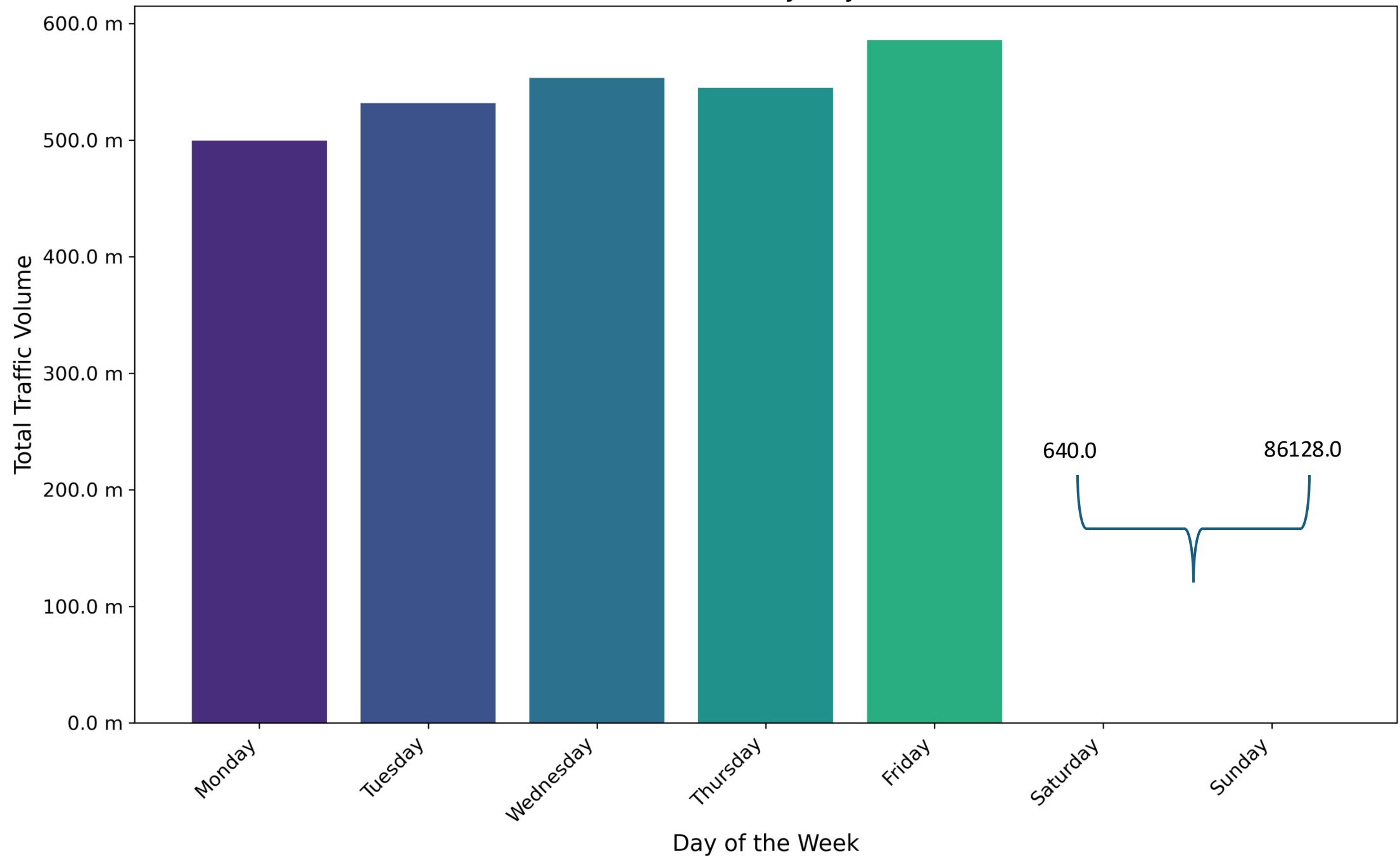
Top 5 Regions with the Heaviest Traffic



Average Traffic Volume by Hour of the Day



Total Traffic Volume by Day of the Week



Next

- More EDA
- Correlation Analysis by Region
 - Road length
 - Vehicle type
- Analysis on Peak vs Off-Peak Hours in each region
- Feature Engineering