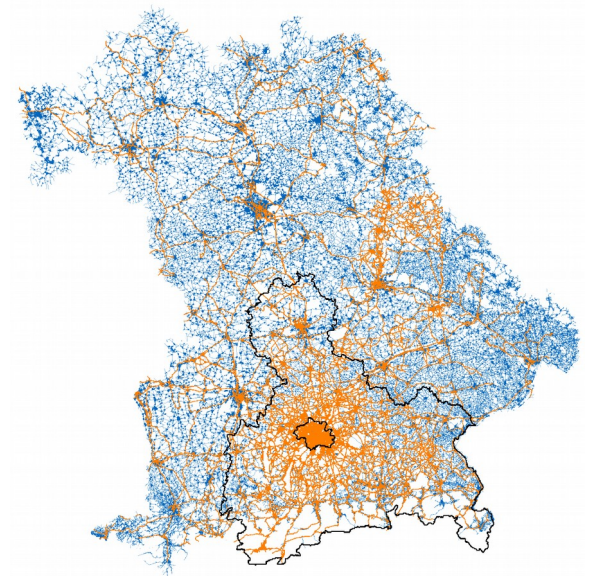


Acquisition, Processing and Evaluation of Vehicle Movement Data

Mobility@TUM | 26.11.2018

Adam Waclaw, M.Sc.

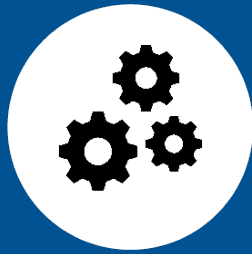
Technical University of Munich
Department of Mechanical Engineering
Chair of Automotive Technology



Agenda



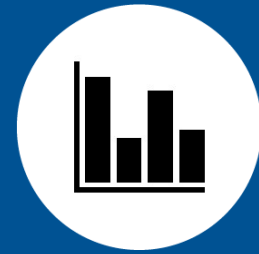
Introduction



Approach



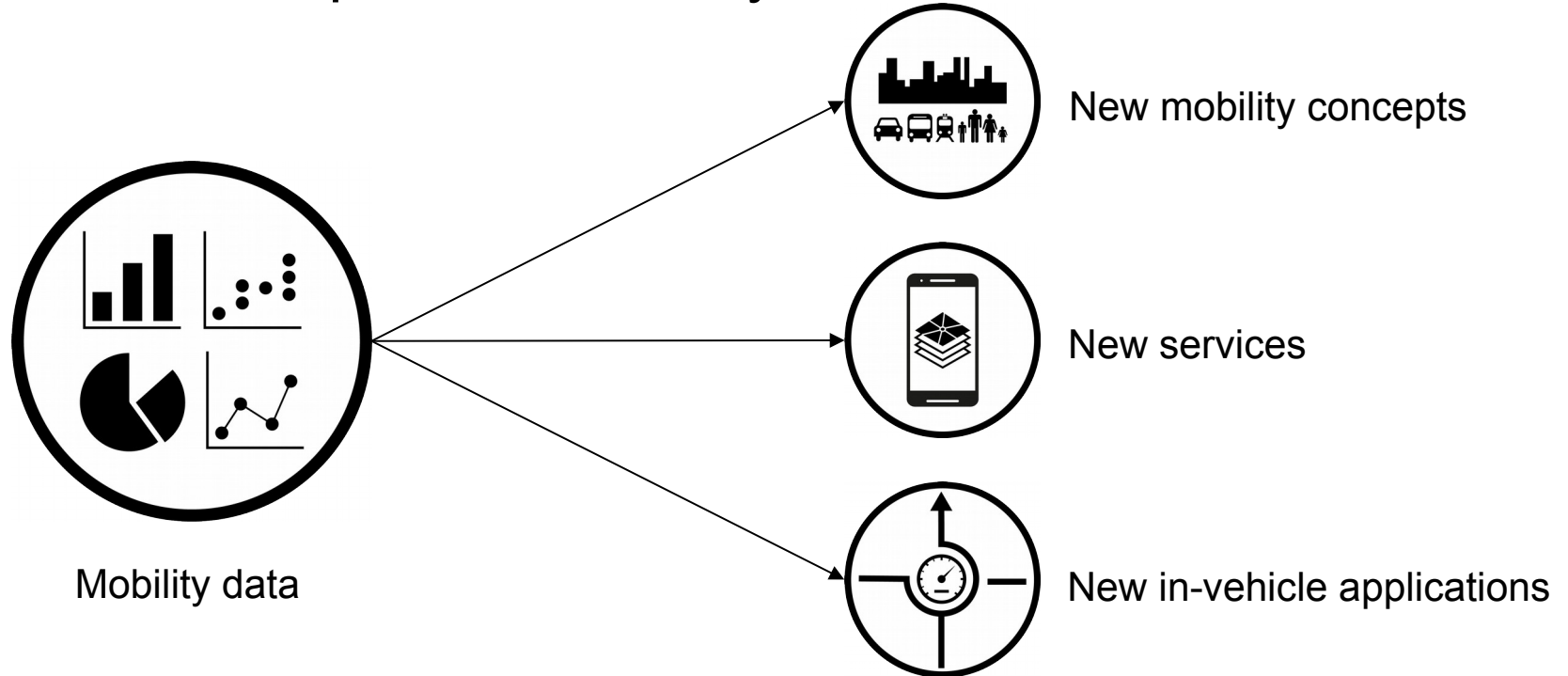
Data Set



Evaluation



Research Group Smart Mobility





How to get, process and evaluate vehicle movement data?



Mobility data



Introduction 

Approach

 Data Set

Evaluation 



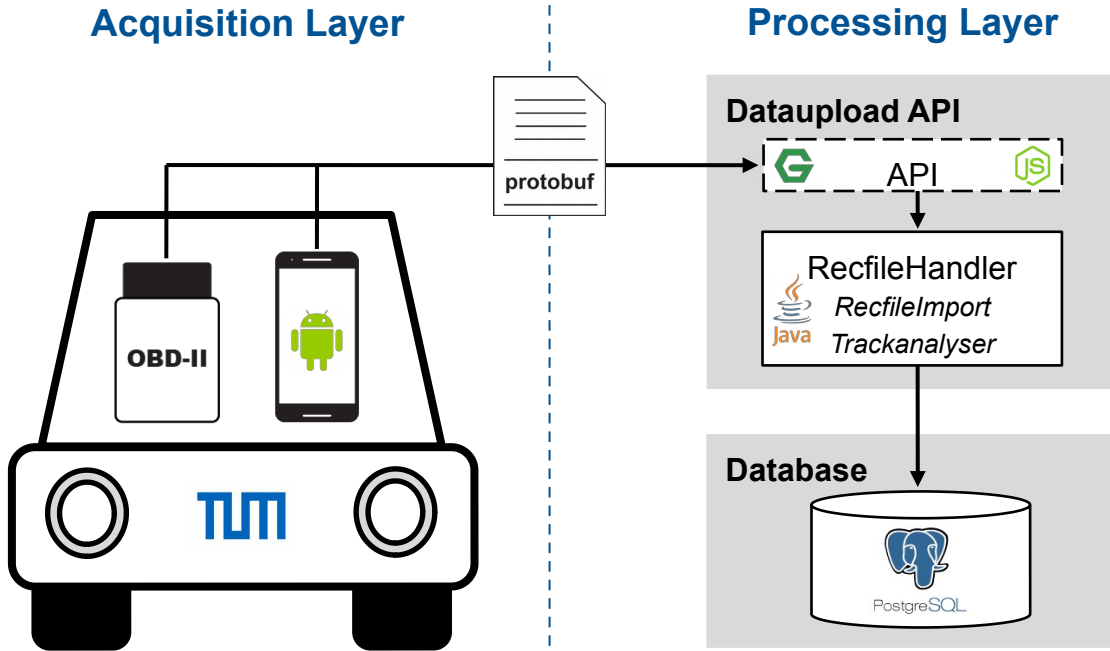
Overview

Acquisition Layer



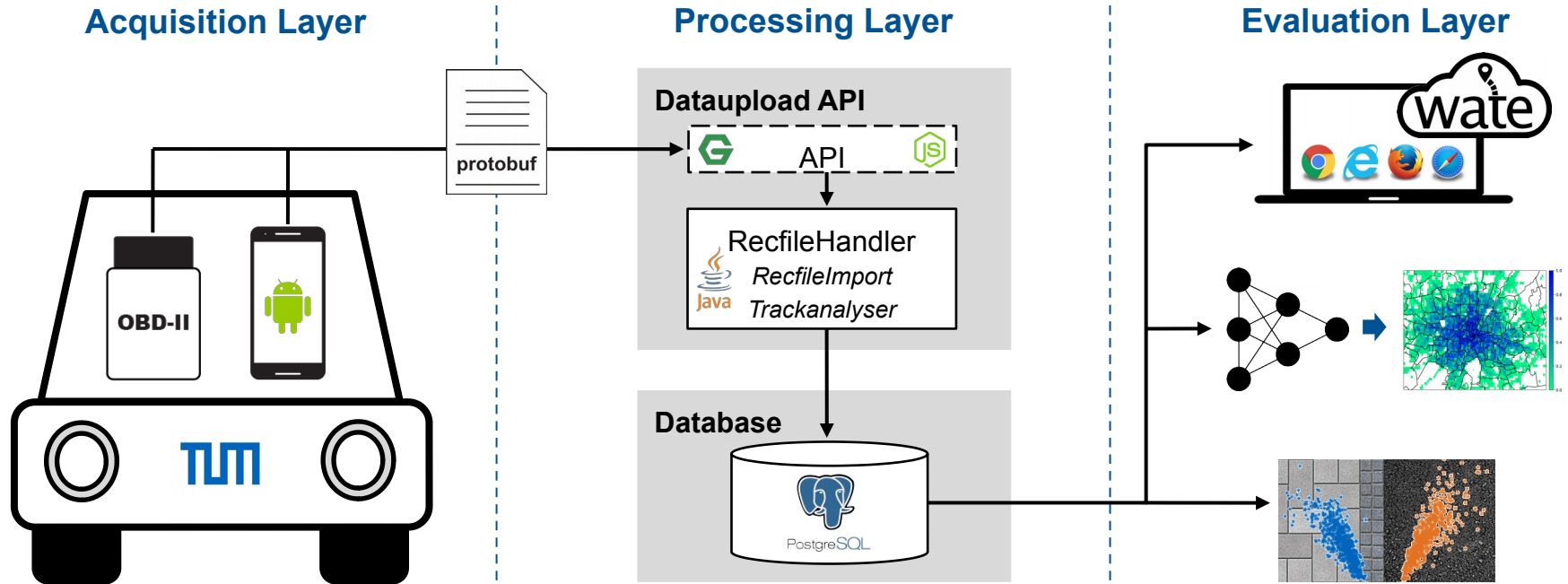


Overview



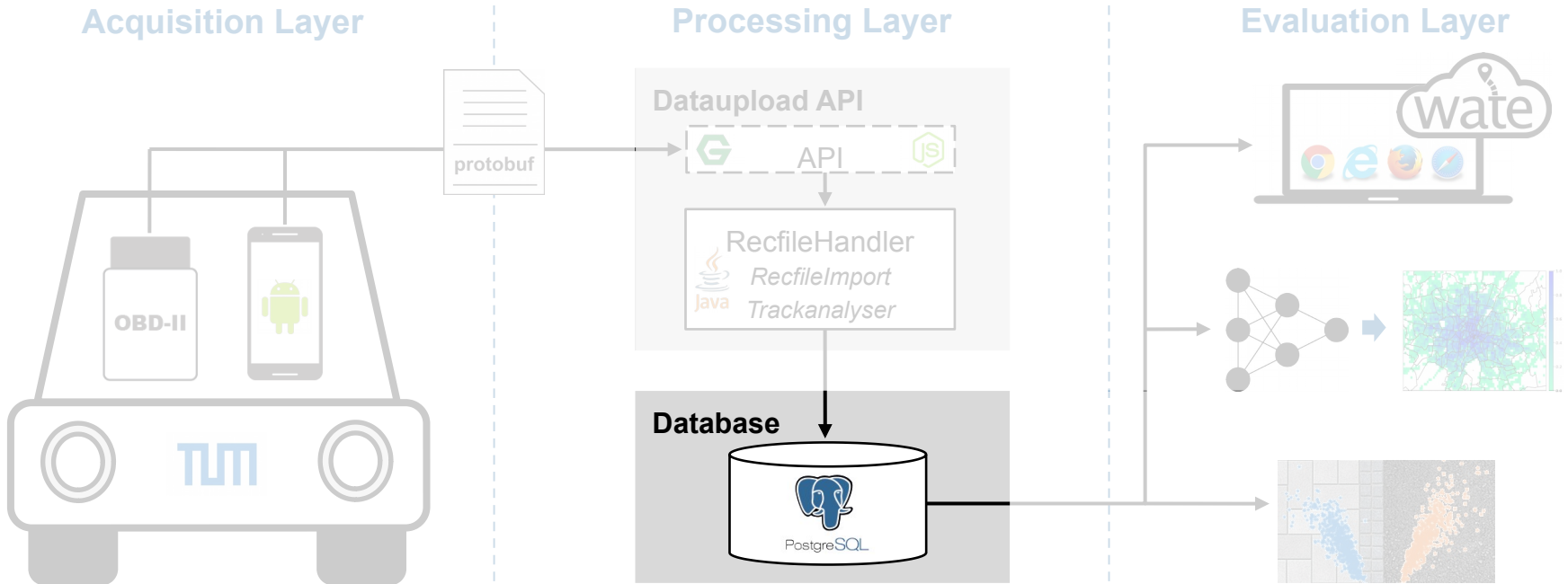


Overview





Our Data Set





Vehicle Fleet Tests

2010-2012

eFlott (Munich)
20 private ICE/BEV

~108 000 km

2012-2014

eMuc (Munich)
25 private BEV

~28 500 km

2014

Sun2Car (Garmisch-P.)
20 private ICE/BEV

~80 000 km

2013-15

VEM (Munich)
130 commercial ICE

~4 450 000 km

2016

Truck 2030 (Bavaria)
20 commercial Trucks

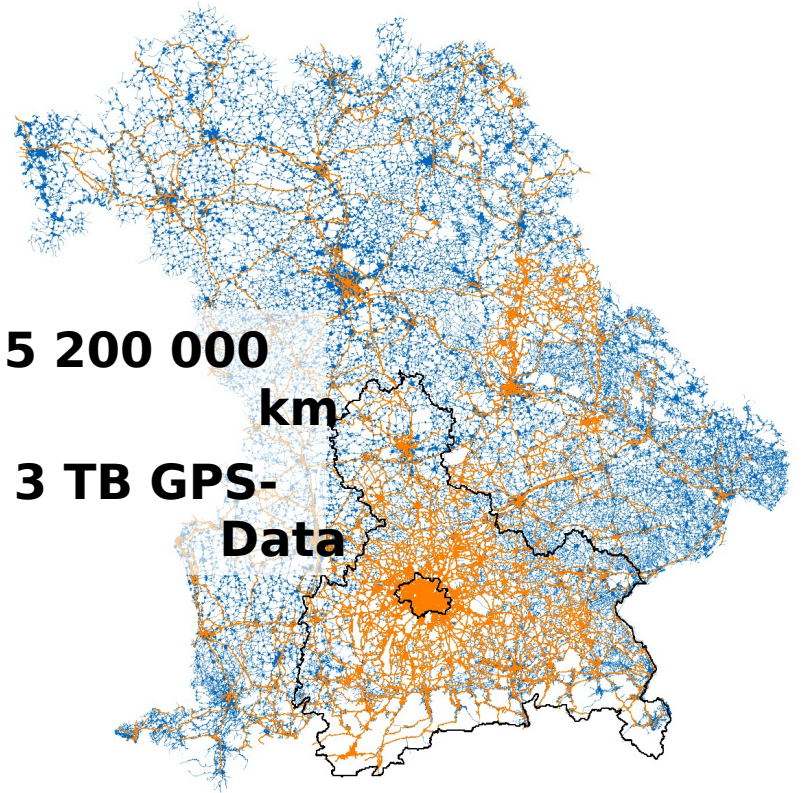
~240 000 km

2017-18

Smart Advisor (Munich)
100 commercial ICE/BEV

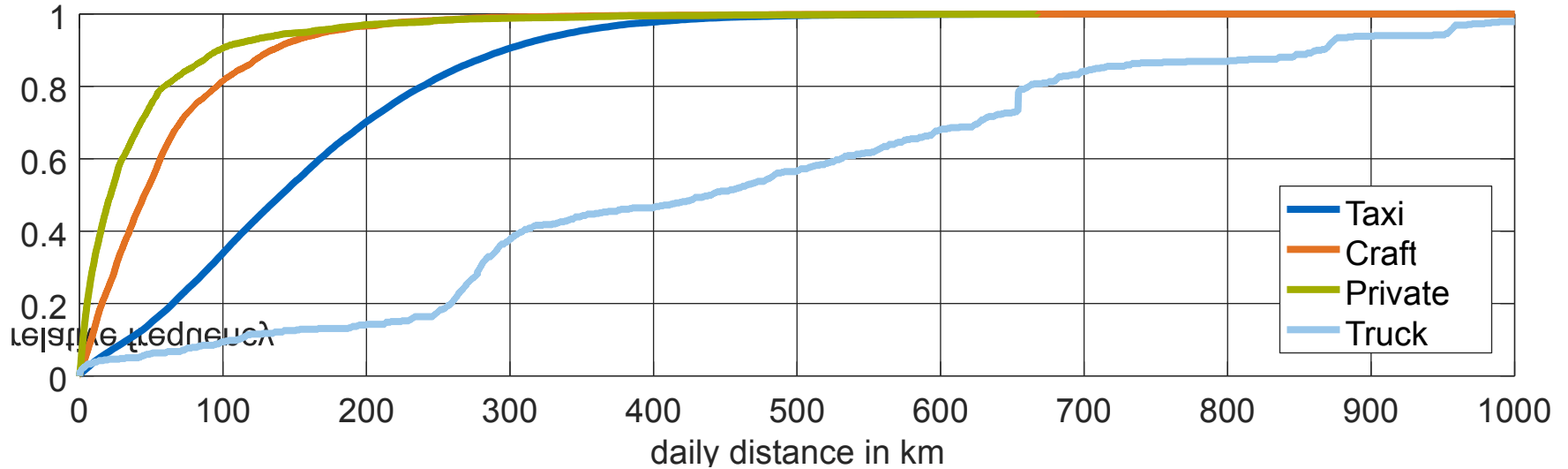
~255 000 km

**~ 5 200 000
km
~ 3 TB GPS-
Data**



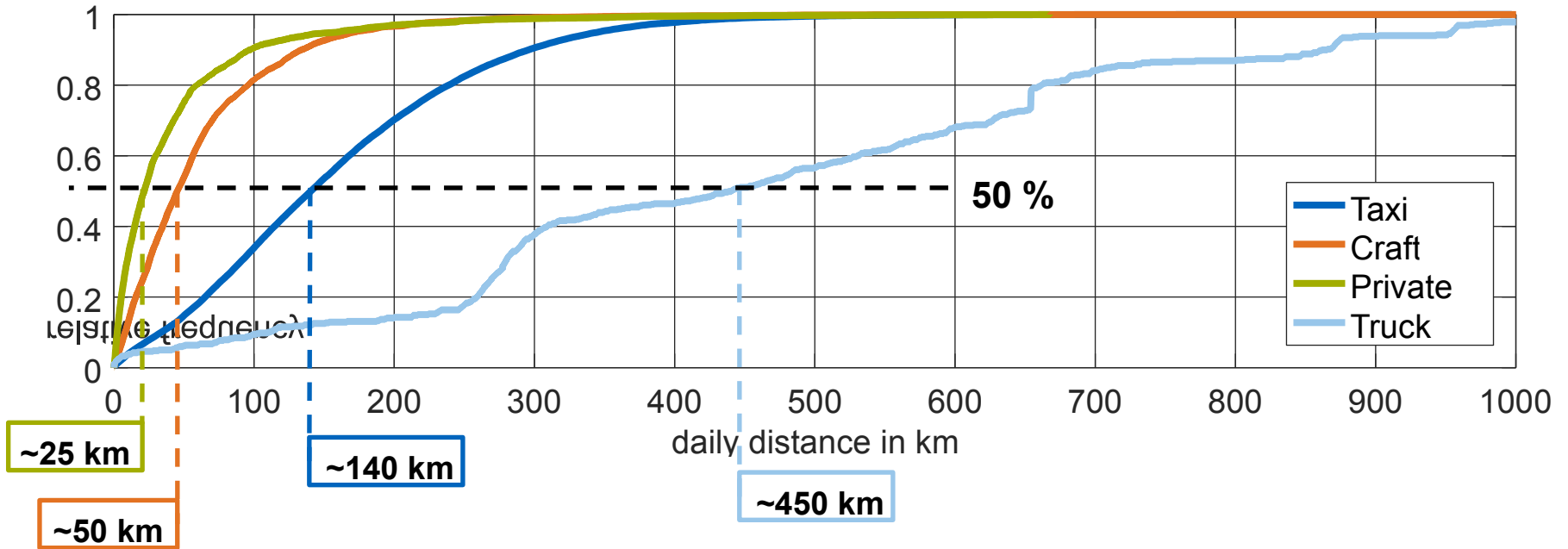


Accumulated Daily Driving Distances



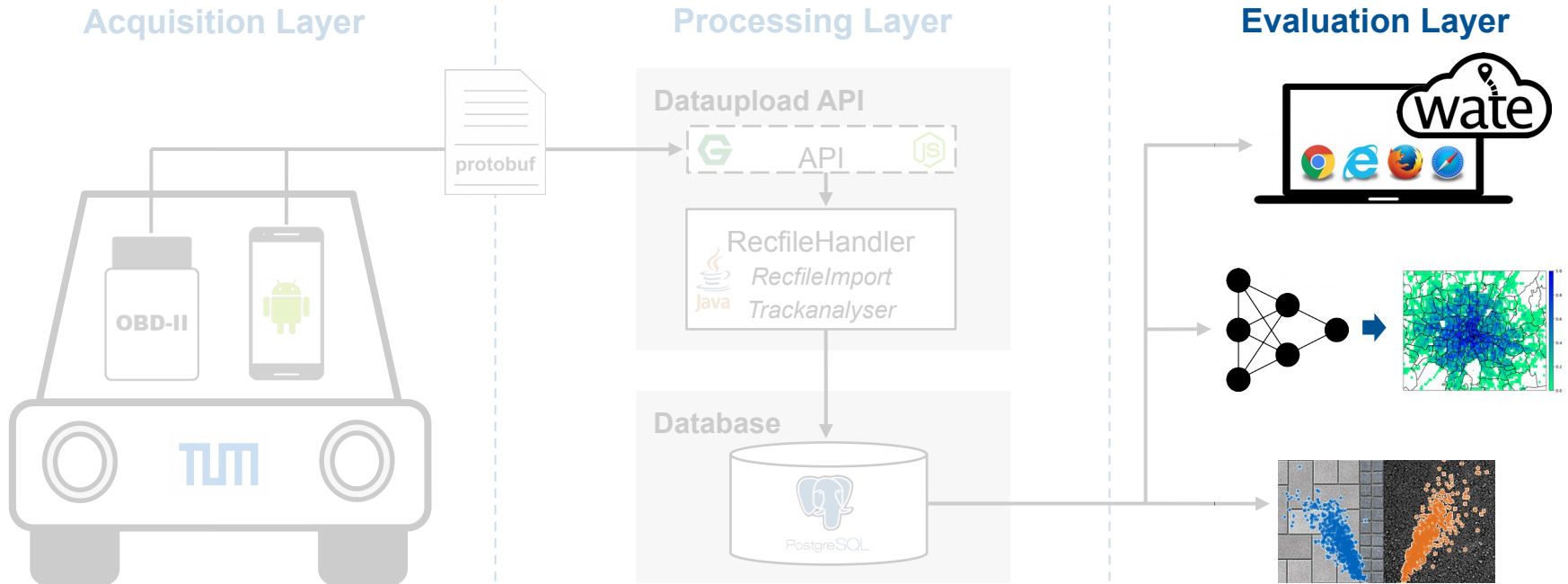


Accumulated Daily Driving Distances





Data Evaluation

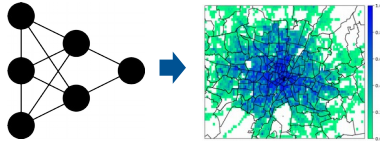




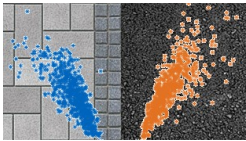
Overview



Cloud-based consulting tool for sustainable **implementation of electromobility** in the **private and commercial sector**



Spatio-temporal **demand prediction** of mobility-on-demand service
Predictive **fleet strategy** for mobility-on-demand service



Classification of road surface quality with big data

Acquisition, Processing and Evaluation of Vehicle Movement Data

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