

Real-Time Air Pollution Alert and Response System for Vehicles

Christos Kiokakis 1083812

Evaggelia Korda 1083829



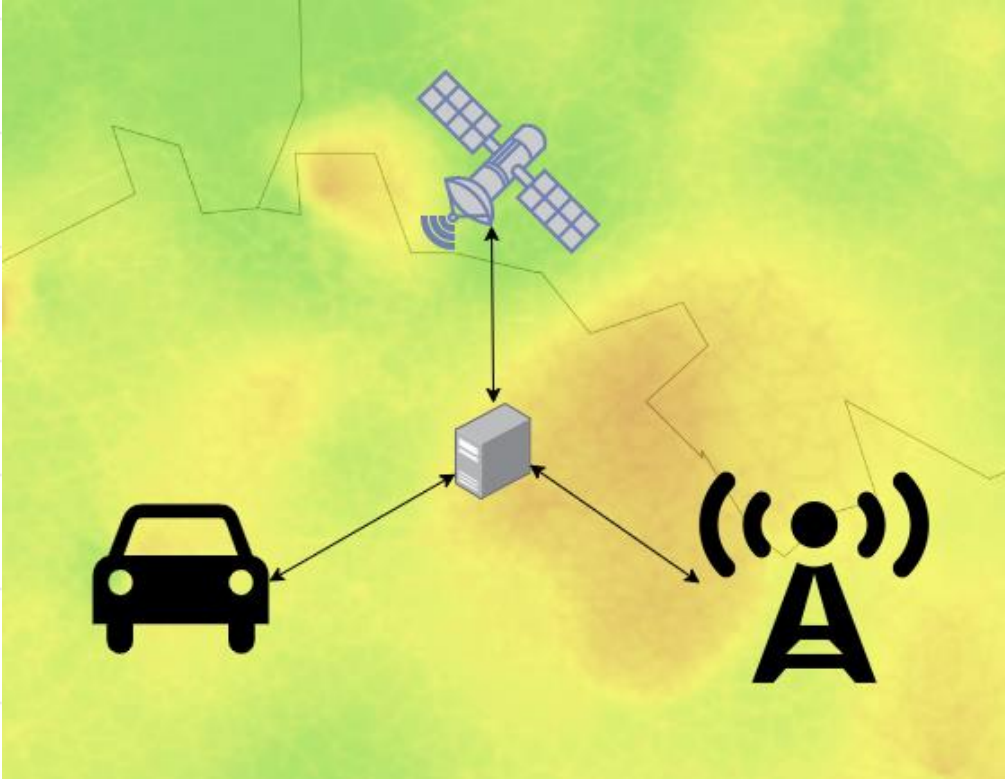
Problems

Urban Respiration Safety

Air Polluted Hotspots

Poor AQI Accuracy

Solution



- **Greater data accuracy** due to constant **interpolation** of on-board sensor, satellite and station data.
- **Identify** areas in cities with the **most severe pollution** based on heatmaps.
- **User notification** and **protection** from exposure to polluted air.

Unique Value Proposition



BETTER HEALTH
PROTECTION



DENSE &
ACCURATE DATA



REAL TIME DATA
CONSTANT UPDATES



CROWD
SOURCING

Target Group



Car manufacturers



Car owners



Governance



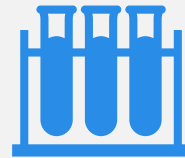
Research Labs

Product Versions



APARS - V

- Car UI
- Car GPS
- CAN BUS



APARS - L

- Dashboard for lab applications

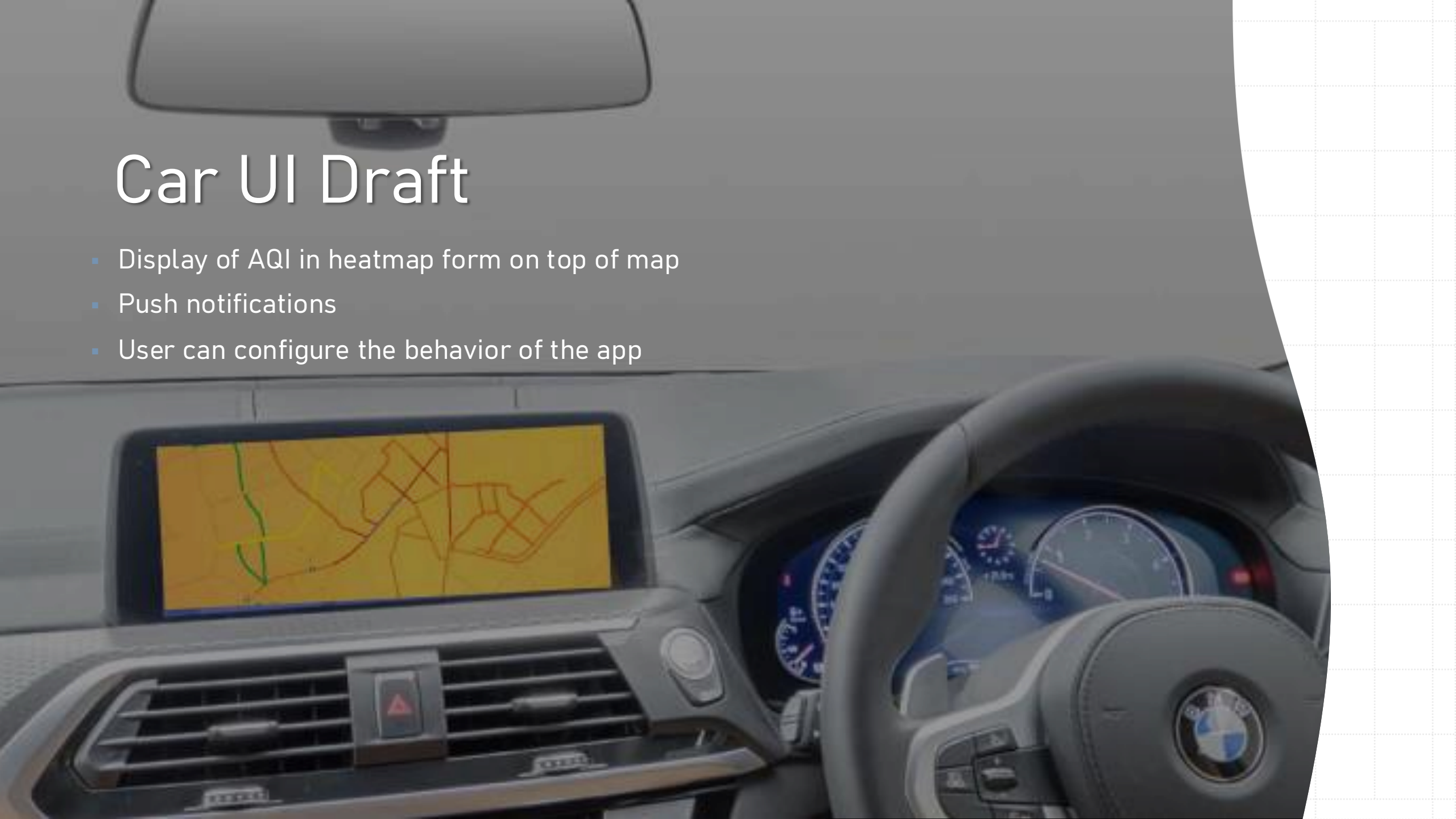


APARS - G

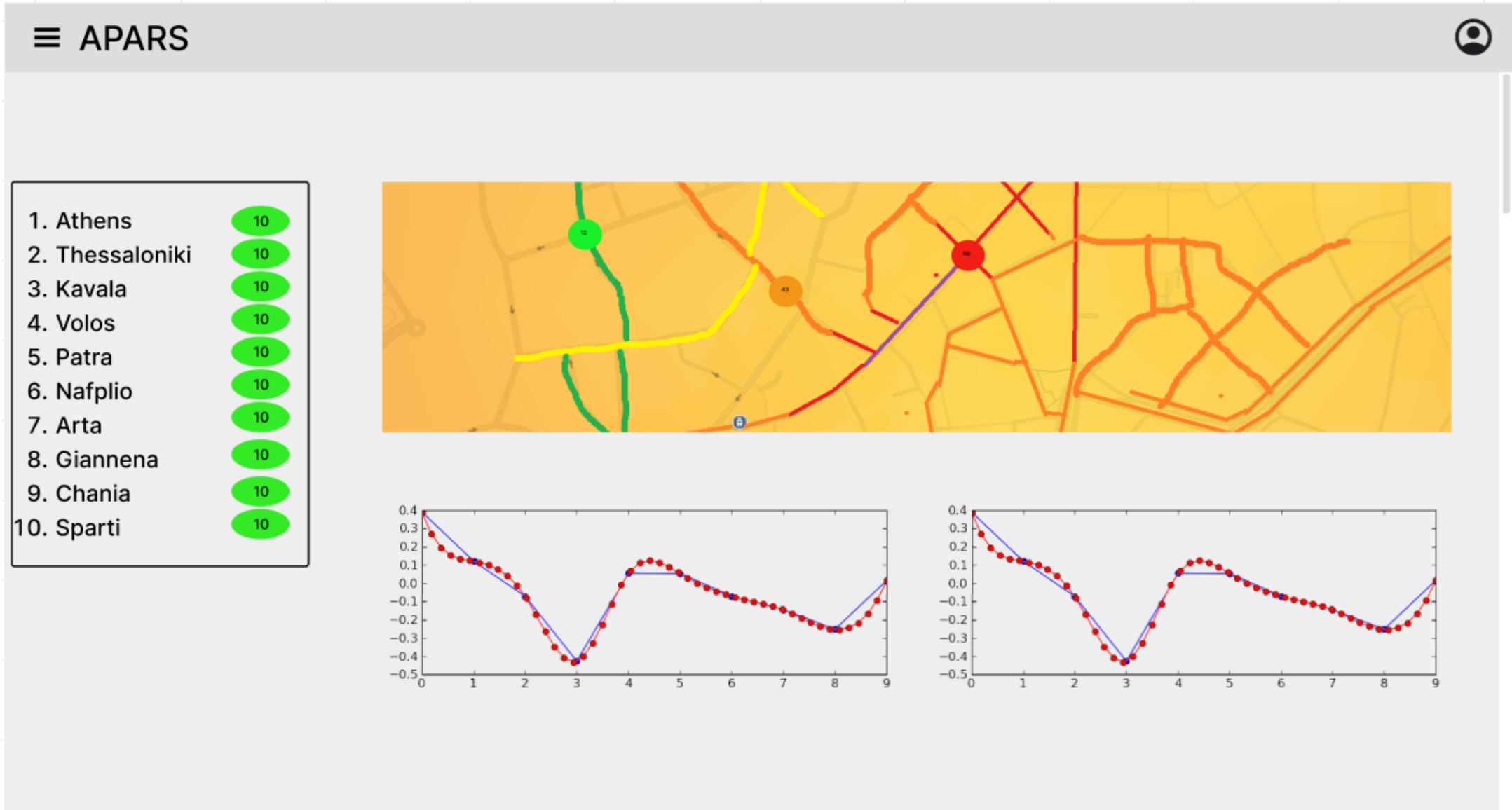
- Dashboard for governance applications

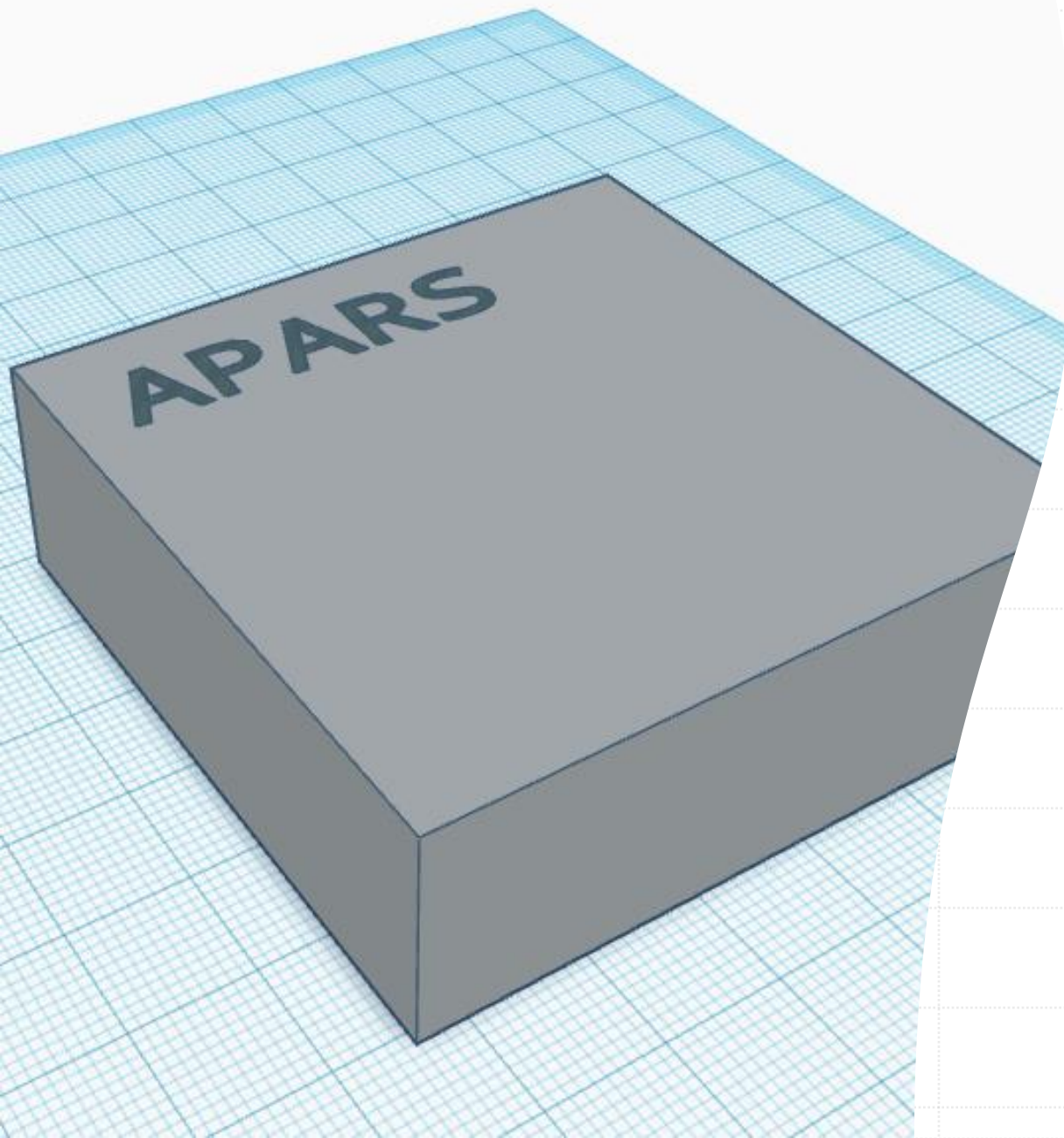
Car UI Draft

- Display of AQI in heatmap form on top of map
- Push notifications
- User can configure the behavior of the app



Dashboard UI Draft





Kit Hardware & Pricing

- Raspberry Pi Zero 2 W (19€)
- CO₂ Humidity and Temperature Sensor (65€)
- PM Air Quality Breakout (42€)
- VOC & eCO₂ Sensor (16€)
- GPS (10€)
- IoT connectivity (10€/month)
- SIM NB-IoT (23€)
- Casing (0.50€)

Kit price: 175,5 €

Monthly fee: 10 €