Air-quality Aware Bicycle Routing with

CYCLERS

Pavol Žilecký
STAND G5

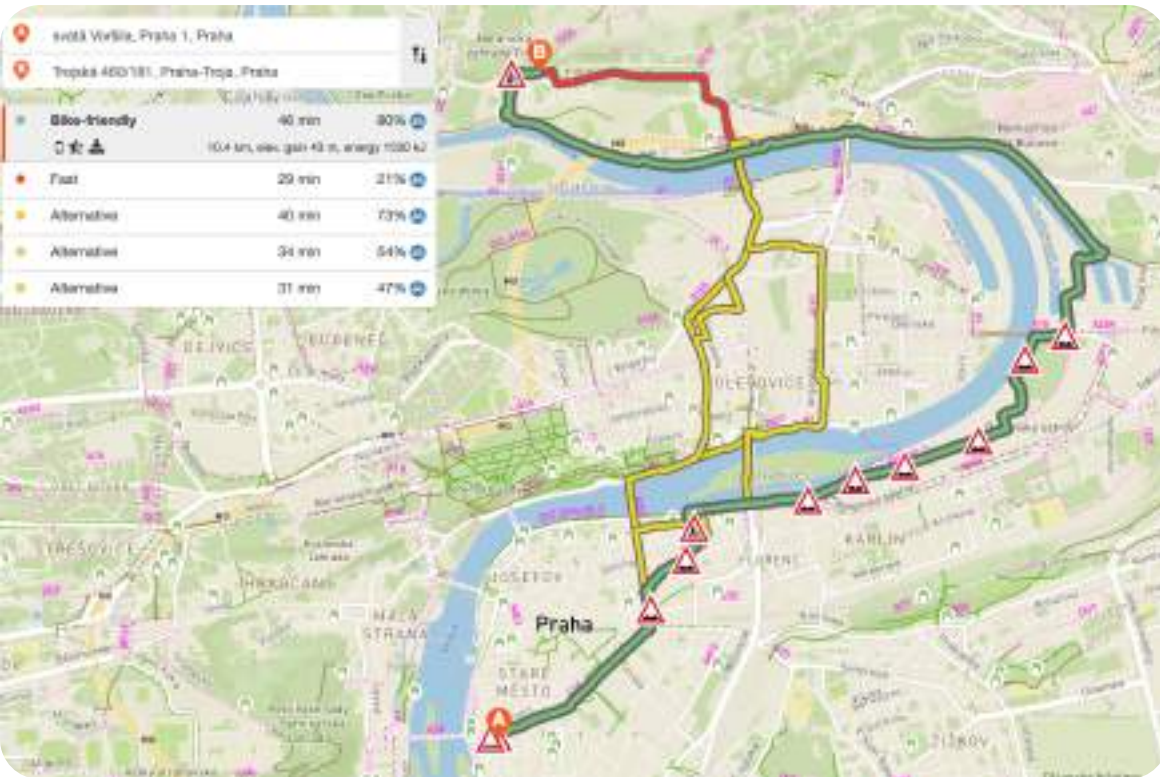www.cyclers.city

Cyclists are exposed to air-pollution

WHAT ARE THE EFFECTS ON HUMAN HEALTH
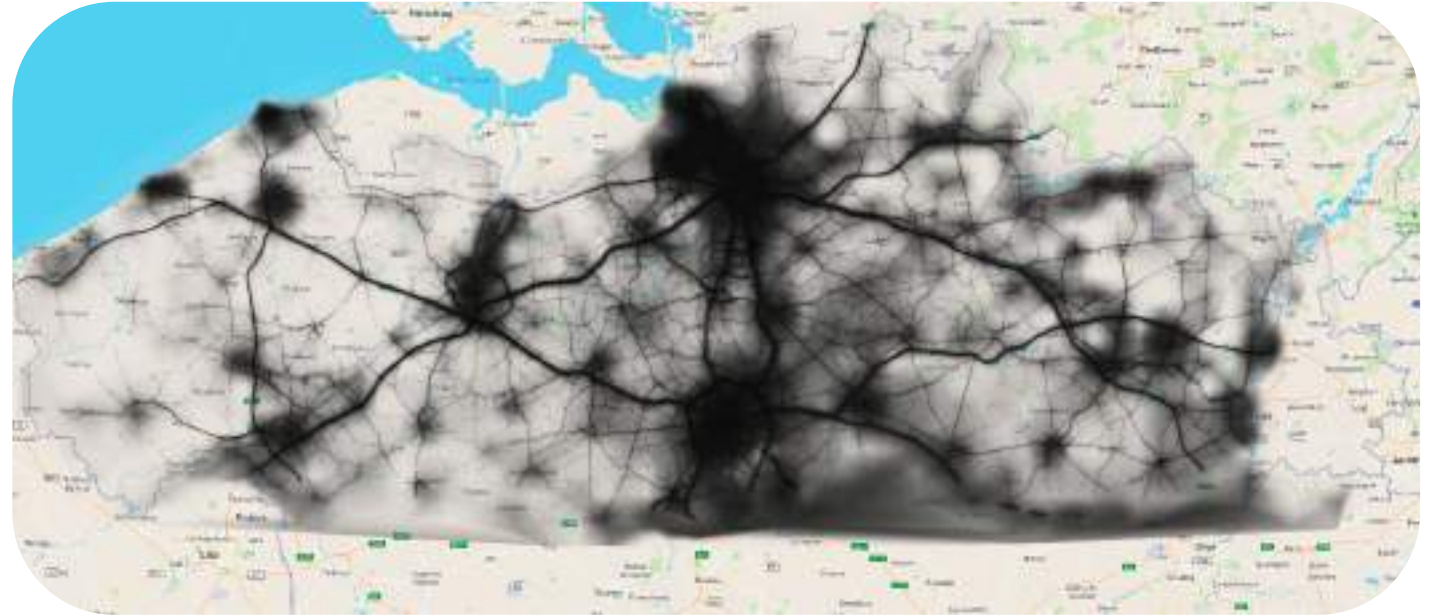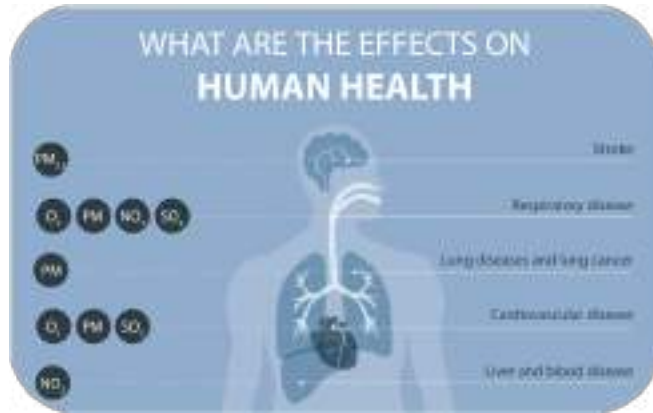
High resolution air-pollution data: Flanders

irCELine

Multi-criteria Bicycle Routing Engine

Developed specially for cyclists

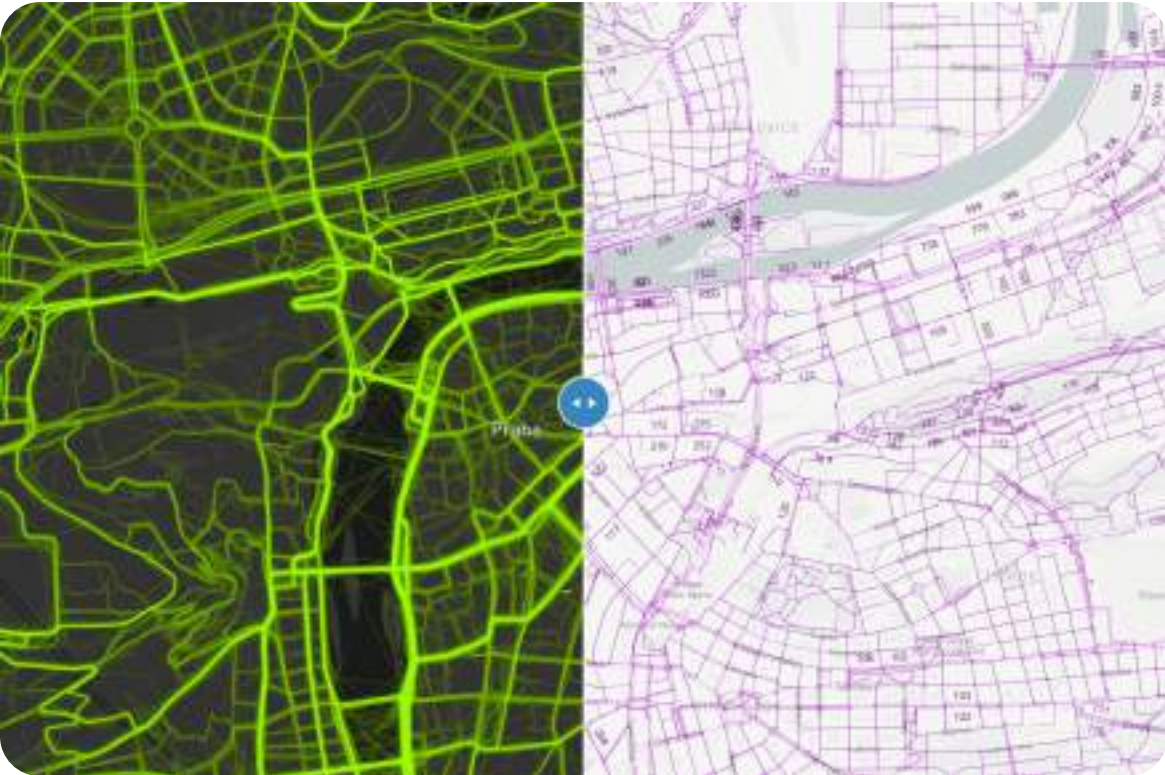- Flexible and extendible cycling first optimization criteria

- Alternative set of routes

- Penalize turns

Multi-criteria Bicycle Routing Engine

Continuously learning from GPS tracks

Learns where cyclists really riding

Correct map data

Multi-criteria Bicycle Routing Engine

- ⊕ **Personalized**
- 🕐 **Time-Dependent**
- 🔲 **Multi-Purpose Routes**
- 📌 **Community-enrinched**

Cleanest Air Routes
Air-quality-aware bicycle routing

CYCLERS

Input Data

Map Data

Elevation Data

GPS Tracks Data

Traffic Intensity Data

Integration

Route Network Model

Routing

Multi-criteria Bicycle Routing Engine

Travel Time

Popularity

Cycling Comfort

Safety

API

Webs & Mobile Apps

Google Play

App Store

Cleanest Air Routes
Air-quality-aware bicycle routing
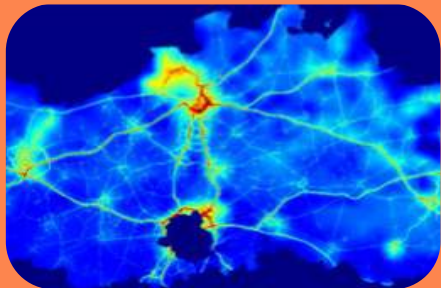
CYCLERS + irCELine

Input Data

Map Data

Elevation Data

GPS Tracks Data

Traffic Intensity Data

Air-quality Data

Route Network Model

Integration

Routing

Multi-criteria Bicycle Routing Engine

Travel Time

Popularity

Cycling Comfort

Safety

Pollution Exposure / Air-quality

API

Webs & Mobile Apps

GET IT ON Google Play

Download on the App Store

CLEANEST AIR ROUTES!

www.cyclers.city

Belgium Cleanest Air Routes

CYCLERS **+** **irCELine**

Bicycle Routing App with Web Frontend

- Advance Bicycle Routing Engine
- **Cleanest Air Bicycle Routes** – avoiding highly polluted routes
- Detailed Cycling Maps
- Belgium Coverage
- **Launch: September**

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