



# EDDA+

EARLY DETECTION OF  
DANGEROUS AREAS  
IN ROAD TRAFFIC  
USING SMART DATA



funded by:  
Bundesministerium für Verkehr und digitale Infrastruktur



## Project presentation EDDA+

*ROADPOL Online Seminar, 29.7.2020*

Platform:



## The project consortium

INITIATIVE FÜR  
sichere-strassen.org



RWTHAACHEN  
UNIVERSITY



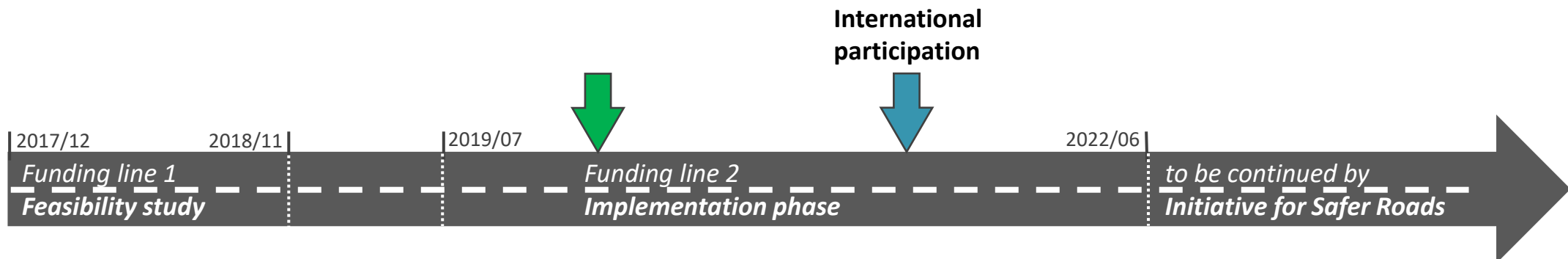
funded by:



Associate partners:



Polizei Bremen

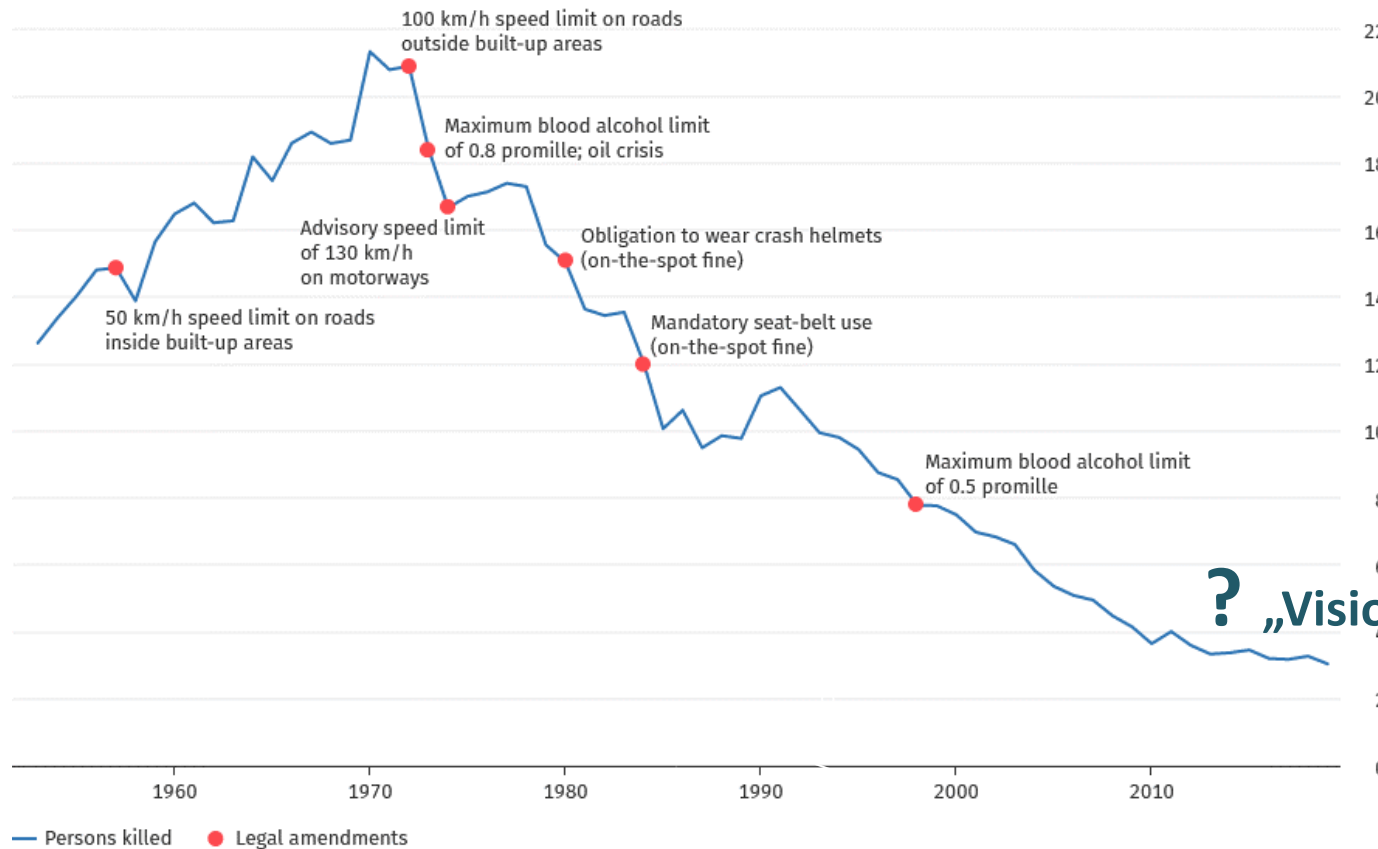






## Trend in the number of road fatalities

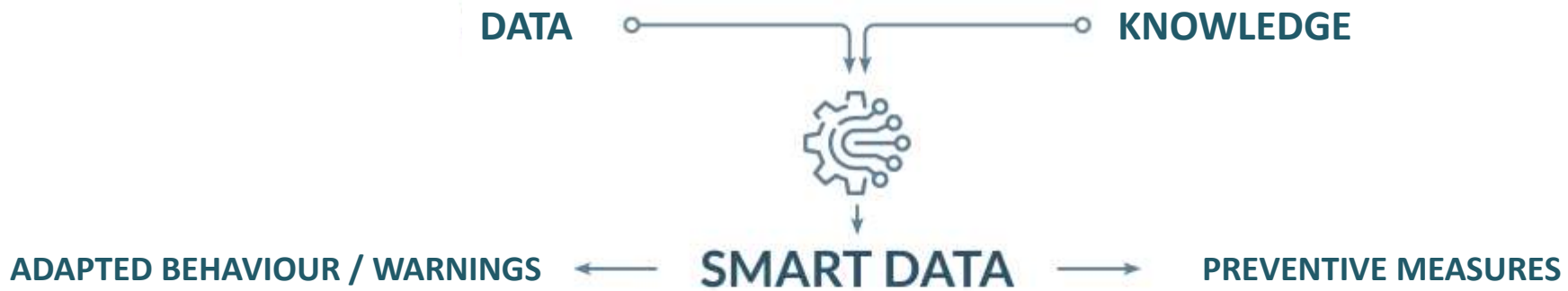
Thousand



**2019**

- every 12 seconds 1 traffic collision
- every 3 hours 1 road fatality

## Idea / Our Goal



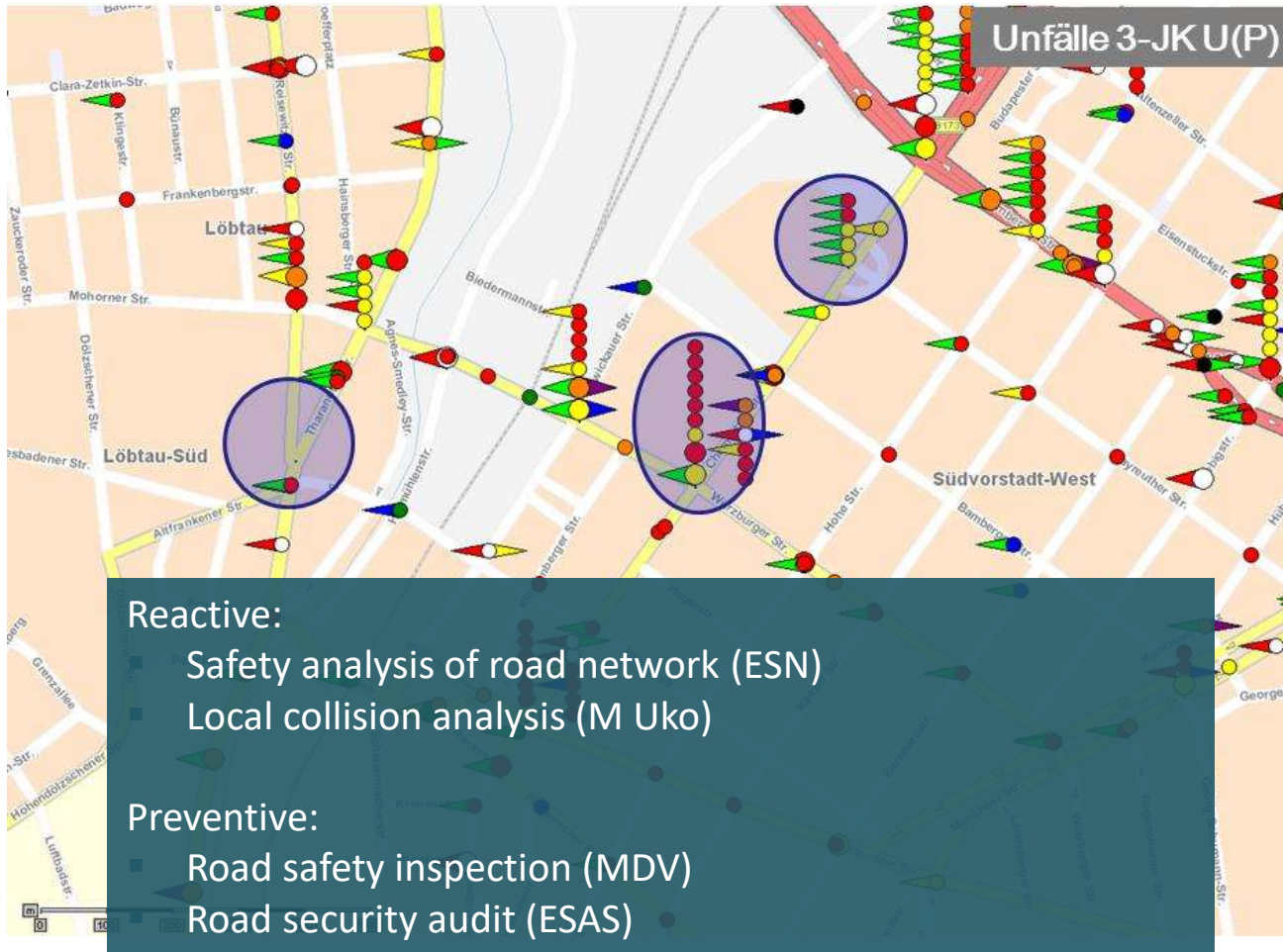
### Road users



### Road safety work



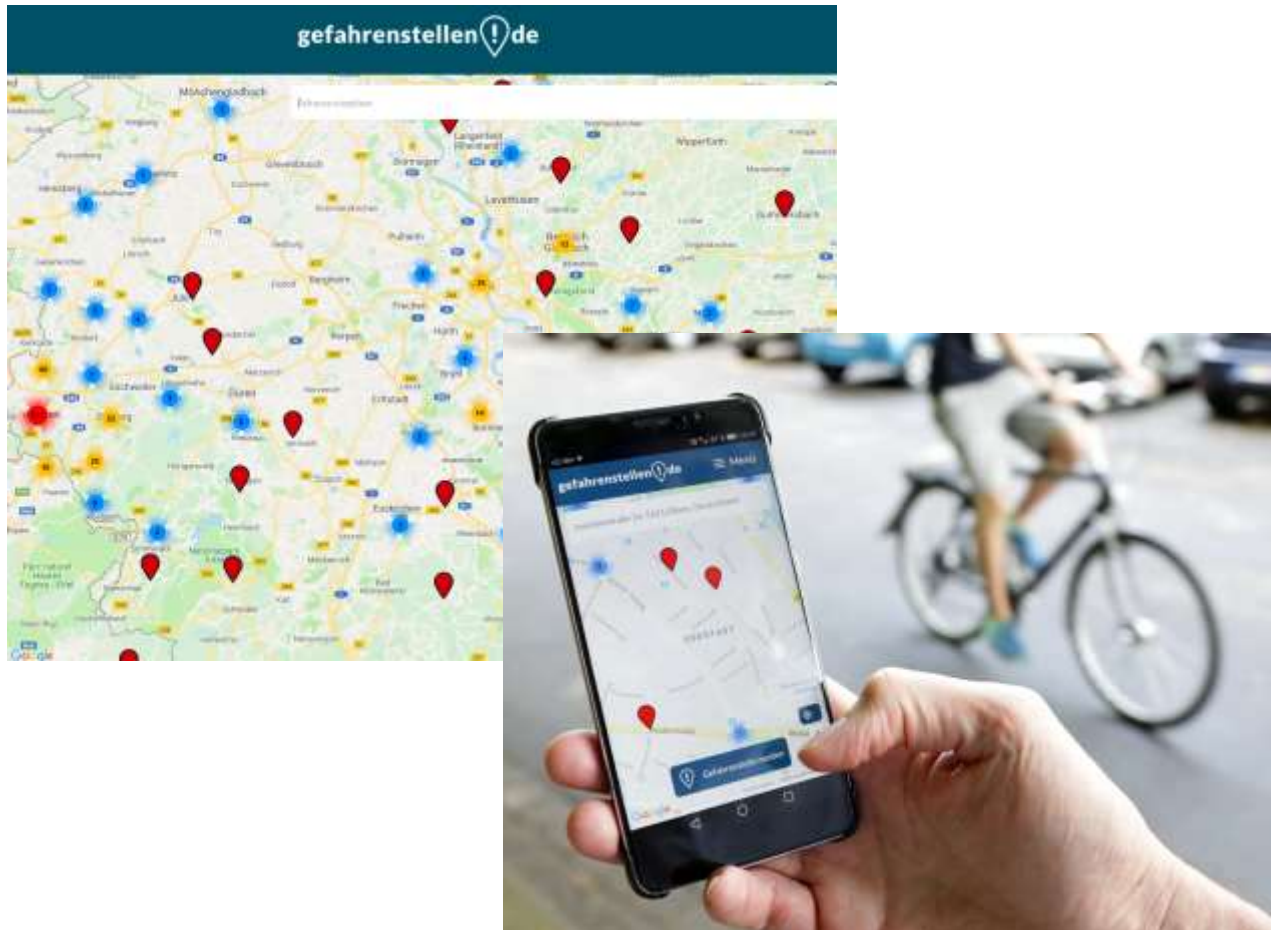
## Instruments in road safety work are mainly reactive



*„Why wait for a crash“, Aachener Zeitung (German Newspaper)*

➤ Proactive analysis of “blackspots” (EU)\*

## Early detection through crowdsourcing



- Successful feasibility study (Bonn / Aachen)
- 3.500 hazard alerts for 1.500 different danger spots within just 6 months
- Road users report danger spots
  - Road damages
  - Obstructed views/sightlines
  - Confusing traffic flows
  - Collisions which are not reported to the police



VERANSTALTUNGS-  
KALENDER



„Runter vom Gas“-Events auf  
einen Blick.

GEFAHRENSTELLEN.DE



Online Gefahrenstellen melden  
– auf [gefahrenstellen.de](https://www.gefahrenstellen.de) (Link  
zu externer Seite)



## Approach of EDDA+ (German: FeGiS+)

Collision data



Road user reports



Kinematic data



Hazard score



The hazard score depends on given situations e.g. night/day, weather and can be contextualized accordingly



## Basic feature: Systematic risk mapping and safety rating



- Road network all over Germany (urban roads / highways)
- Cumulated, dynamic rating of geocoded dangerous areas (using validated scientific methods)
- Multitude of filters/analysis options (fading in/out of danger types, type of road users, urban or highway roads...)
- Expansion of EDDA+ approach into other countries starting in 2021

## Use cases: local and police authorities



**gefahrenstellen!de** Service App

### Gefahrenstellen und Unfälle in Aachen (Nordrhein-Westfalen)

Die Stadt Aachen liegt ca. 75km westlich von Köln. Die kreisfreie Stadt gehört zum Regierungsbezirk Köln und zählt rund 250.000 Einwohner. Die Städteregion Aachen mit den Städten und Gemeinden Aachen, Alsdorf, Baesweiler, Eschweiler, Herzogenrath, Monschau, Roetgen, Simmerath, Stolberg und Würselen sogar rund 550.000 Bewohner. Etwa 66.000 Erwerbstätige pendeln täglich in die Städteregion Aachen, rund 10 Prozent davon übrigens aus Belgien und den Niederlanden. Dem gegenüber stehen rund 50.000 Menschen, die für die Arbeit jeden Morgen Aachen verlassen.

Adresse eingeben

Gefahrenstelle melden

Hier sehen Sie aktuelle Gefahrenstellen in Aachen. Melden Sie selbst gefährliche Bereiche in Ihrer Umgebung durch Klick in die Karte.

- **Early detection** of new geocoded danger spots
- **Additional information** for road safety work
- **Danger spots** can be prioritized according to risk level
- Comparison btw. **blackspots vs. public opinion**
- Public authorities can get **in contact with citizens**
- **Construction projects in traffic** can be published on the platform
- Targeted **presence of police** at specific danger spots to increase awareness about dangerous areas

**You know a dangerous spot in road traffic?**

Report now on  
[www.dangerspots.org](http://www.dangerspots.org)

**Interested in more information or to collaborate?**

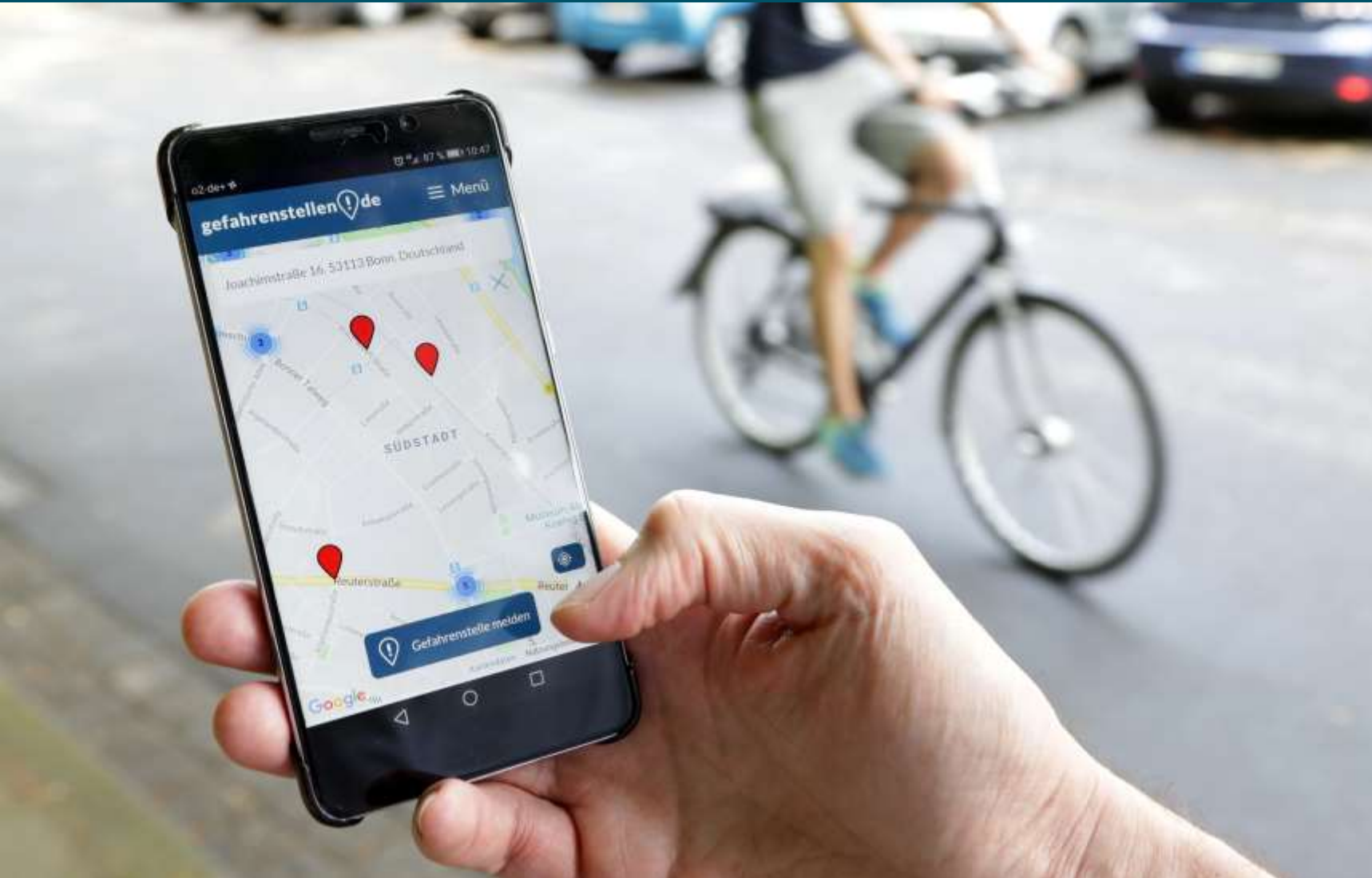
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