FriendlyDrive

DRIVING SUSTAINABILITY

The Problem

Implication

- CO_2
- NO_x

"The planet is on f***ing fire!!!"

-Bill Nye; "The Science Guy"

The Solution

- Real time-tracking and –analyzation of driving behaviour using the TIxS plug by Pixida
- Gamified education for the driver
- Shift of driving behaviour to a more sustainable style

How it works

- Plug&play device for the car cigarette lighter
- linked to user account on our FriendlyDrive smartphone app

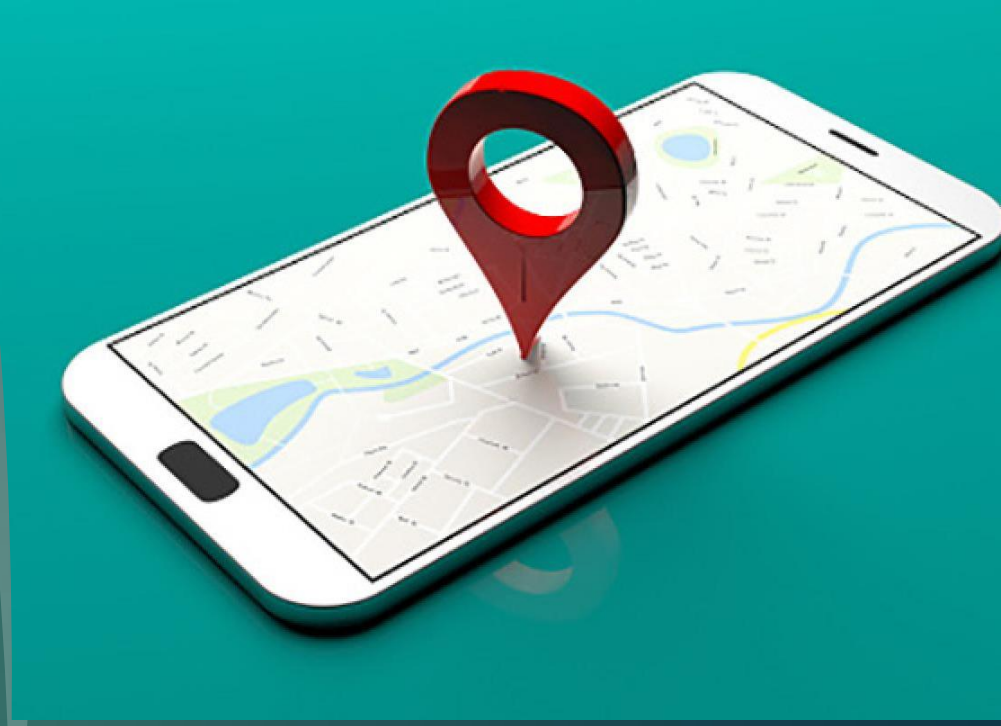
TIxS

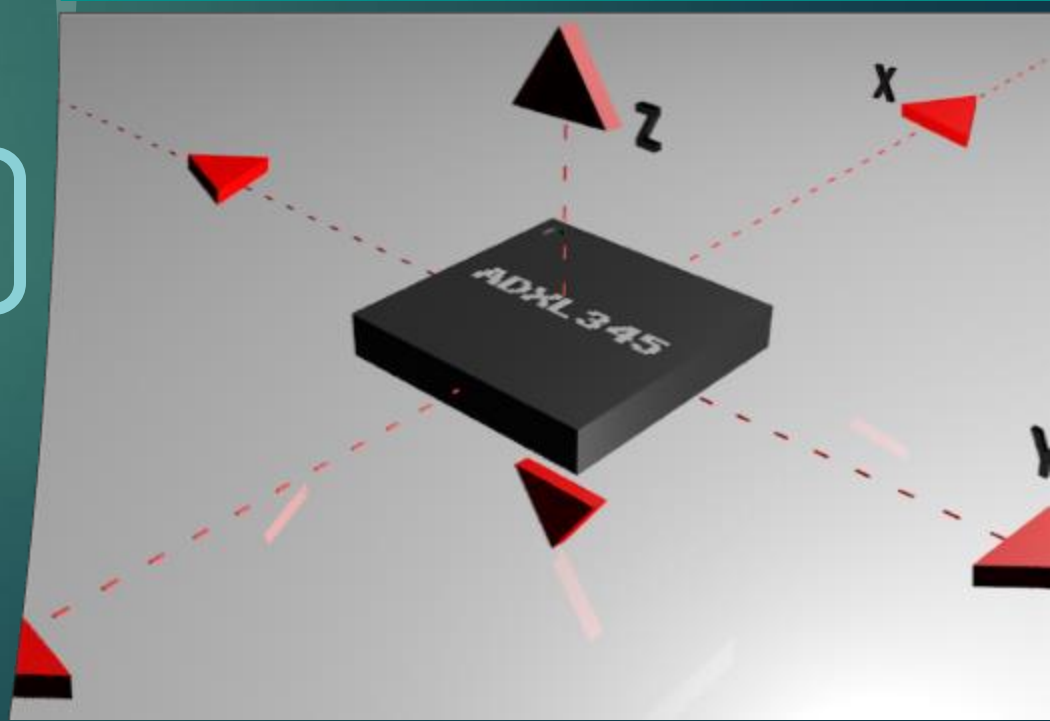
- GPS data
- Acceleration data

+

API

- Information about driving environment





AGGRESSIVENESS-SCORE

Berry, I.M.:The Effects of Driving Style and Vehicle Performance on the Real-World Fuel Consumption of U.S. Light-Duty Vehicles

City	20 - 45	$\left(\frac{1}{M}\right)\left[\left(\frac{\int\left(Av+Bv^2+Cv^3+Mav\right)^{+}dt}{\int vdt}\right)-\left(Roadlaod\left(\bar{v}\right)\right)\right]$
High.	> 45	$\left(\frac{1}{M}\right)\left[\left(\frac{\int\left(Cv^3+Bv^2+Av+Mav\right)^{+}dt}{\int vdt}\right)-\left(Roadload\left(20.12\ \mathrm{m/s}\right)\right)\right]$

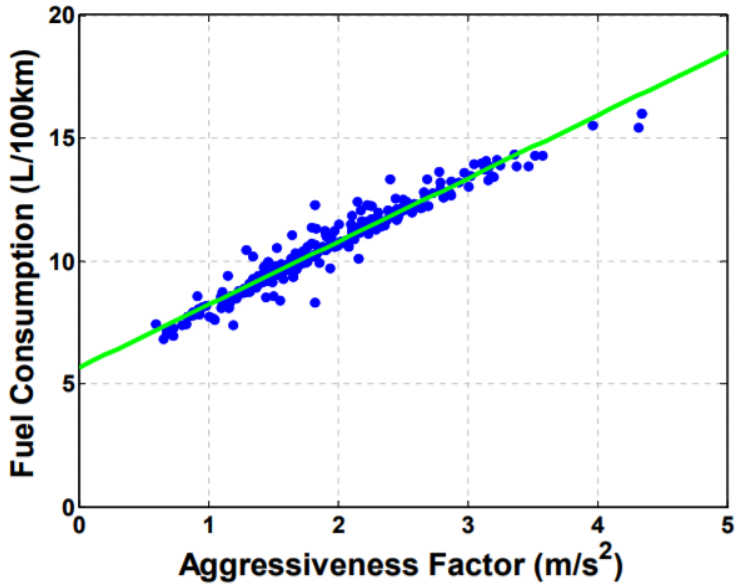


Figure 64: Fuel consumption versus the city aggressiveness factor for speed traces with average velocity less than 20 mph (32 kph)

>Correlated to fuel consumption

AGGRESSIVENESS-SCORE

RULE-BASED ECO-SCORE

- normalised to driving behaviour of the entire dataset
- adapted to driving environment

User experience

- Auditive/ visual feedback about the driving style (real time/ retrospect)
- Tips on driving style and acceleration behaviour

Gamification

- Ranking list to compare with other drivers
- Virtual badges for special achievements like "FriendlyCityDriver"; "HighwayHero" etc.

The Market

- 47,1 Mio. registered cars in Germany
- >5 Mio. company-owned

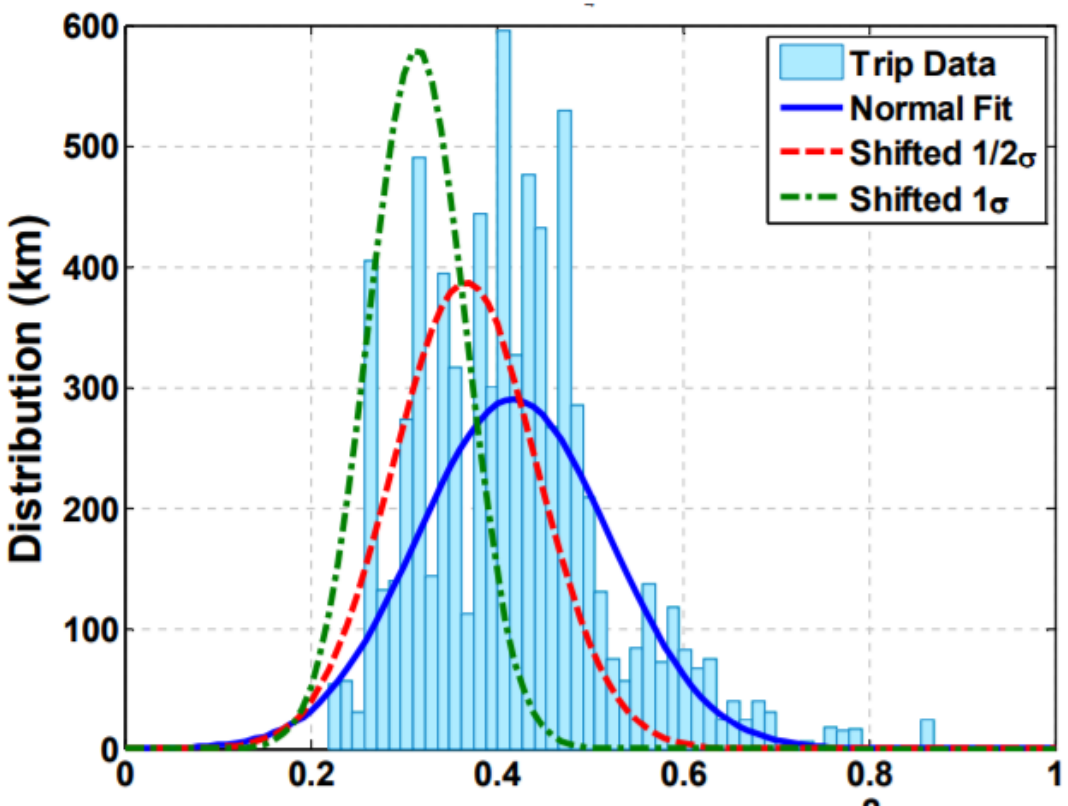
- 44,2 Mio. tons of fuel per year
- 170 Mio. tons of CO2 per year in 2020

Costs & Potential

- 5,91 Bn. € per year in fuel
- Improvement of eco-score by one deviation results in ~-6% fuel consumption

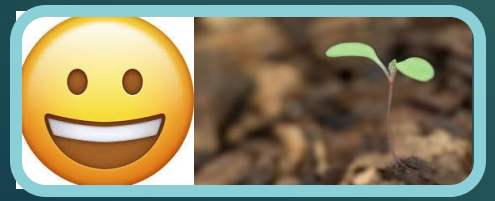
- 355 Mio. € savings per year

- 9.6 Mio. tons CO2 less per year



The bigger picture

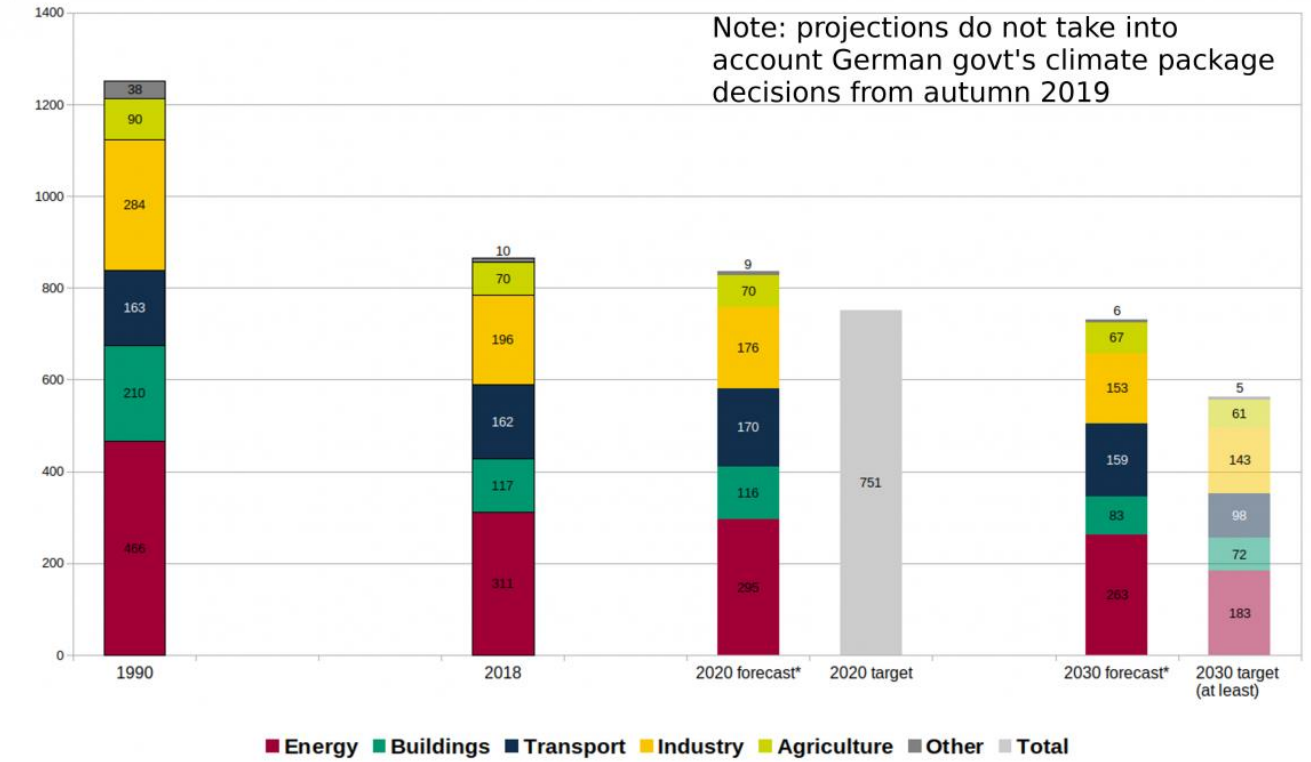
- For 2030 Germany wants to cut its CO2 emission from transport by 11 Mio. tons (in relation to 2020 forecast)
- FriendlyDrive can contribute a big part



German greenhouse gas emission reduction sector targets and projection for 2020 and 2030.

Data: BMU 2019

CLEAN ENERGY WIRE



In million tonnes CO2 equivalents.

*BMU GHG emissions projections report 2019

Monetization

- Renting model :
  - 5€ monthly royalty fee for device + app
- Sales of anonymized user data:
  - approx. 1,20€ per dataset

- Worst prediction:
  - 3% share of total market= 1,4 Mio. Sales
  - 7 Mio. € revenue from fees per month
  - 1.6 Mio. € if every dataset sold just once
- Break-even approx. within 12 months (without EoS)

Marketing strategy

1st stage:

- Focused targeting of companies with big car pools
- Partnering with automotive factorers and distribution via their loyalty club programs

2nd stage:

- targeting of end customers via cost-effective online advertisement and PoS marketing

Feedback from our future customers

"I drive friendly now."

"Easy and enjoyable- a great way to save fuel."

"Fuel costs go DOWN- so do emissions. I love it."

When do YOU start driving friendly?

AND THIS IS HOW IT LOOKS IN ACTION...!! !!!!

STAY TUNED:
https://friendlydrive.wordpress.com/