



# COMPREDICT

Virtual Sensors & Analytics



**We take the transport and mobility sector  
to the next level of vehicle usage insights**



# About us

- Founded by the end of 2016 in Darmstadt, Germany, by Dr. Stéphane Foulard and Dr. Rafael Fietzek
- AI-based **Virtual Sensors for health & usage monitoring**
- License-based **SaaS** business model
- 23 employees, combining **domain & IT expertise**
- Major automotive **OEMs** and **suppliers** as customers
- As well, **fleet operators** and **telematics** companies
- Multiple awards, part of major accelerator programs

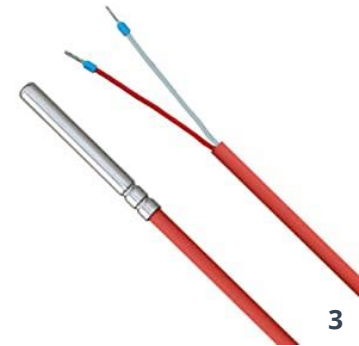


thi investments

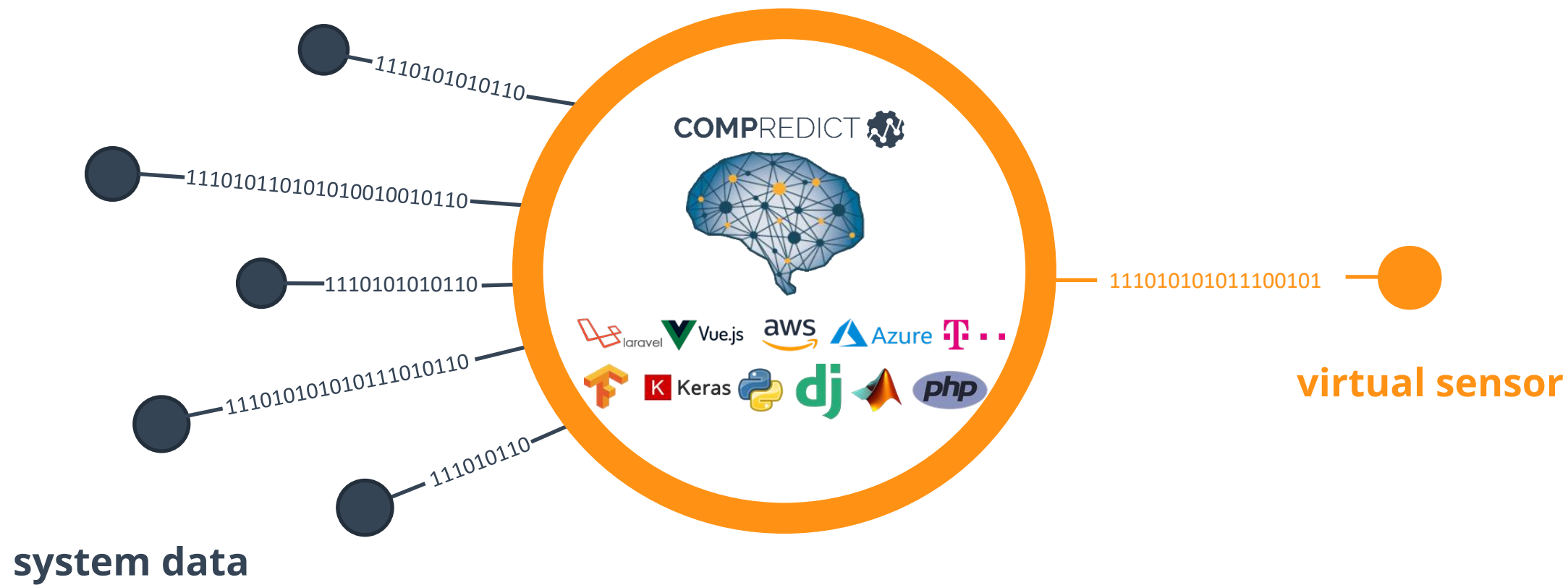


Our investors

# How others think of **sensors**



# How we think of **sensors**



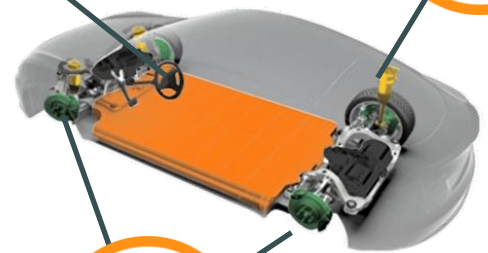
# Our **Virtual Sensors** can measure (almost) **everything**

usage profile,  
driver behavior



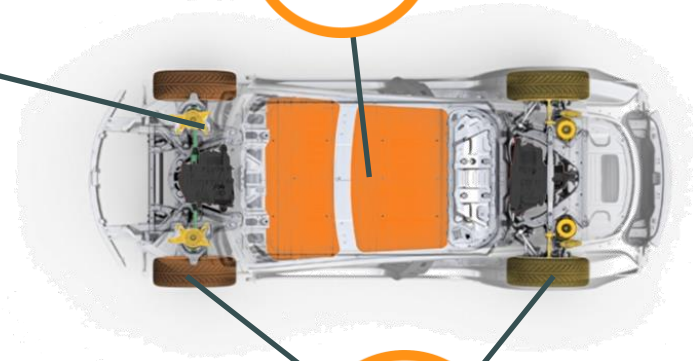
mass,  
distribution

forces



torque,  
temperature,  
pad thickness

forces,  
deflection,  
road conditions



forces,  
temperatures &  
profile depth

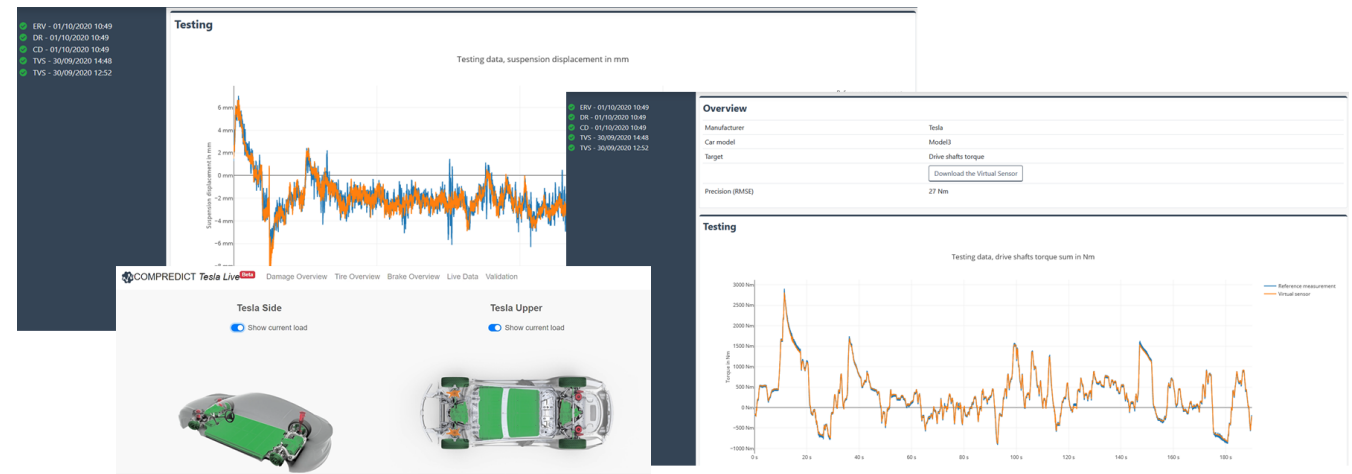
internal resistance,  
vibrations, SOH





# Advantages of **Virtual Sensors**

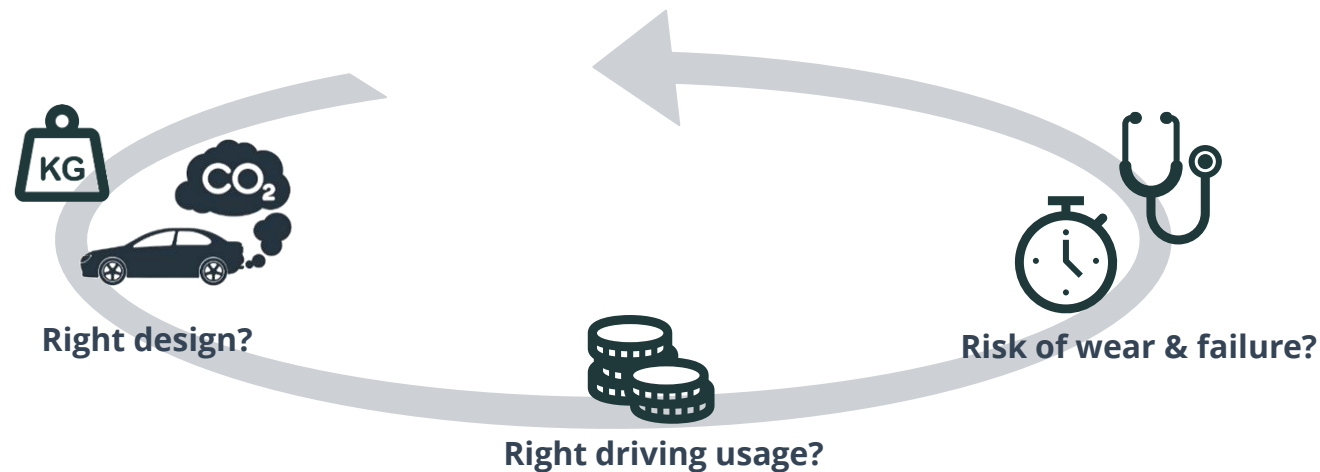
- Give access to **highly reliable** and **qualitative data**
- **Scale** easily over many vehicles
- **Never fail**
- Improve precision **continuously**
- Measure „in the **past**“
- Measure „**immeasurable**“ values





# We **close the loop** between development, operation and usage

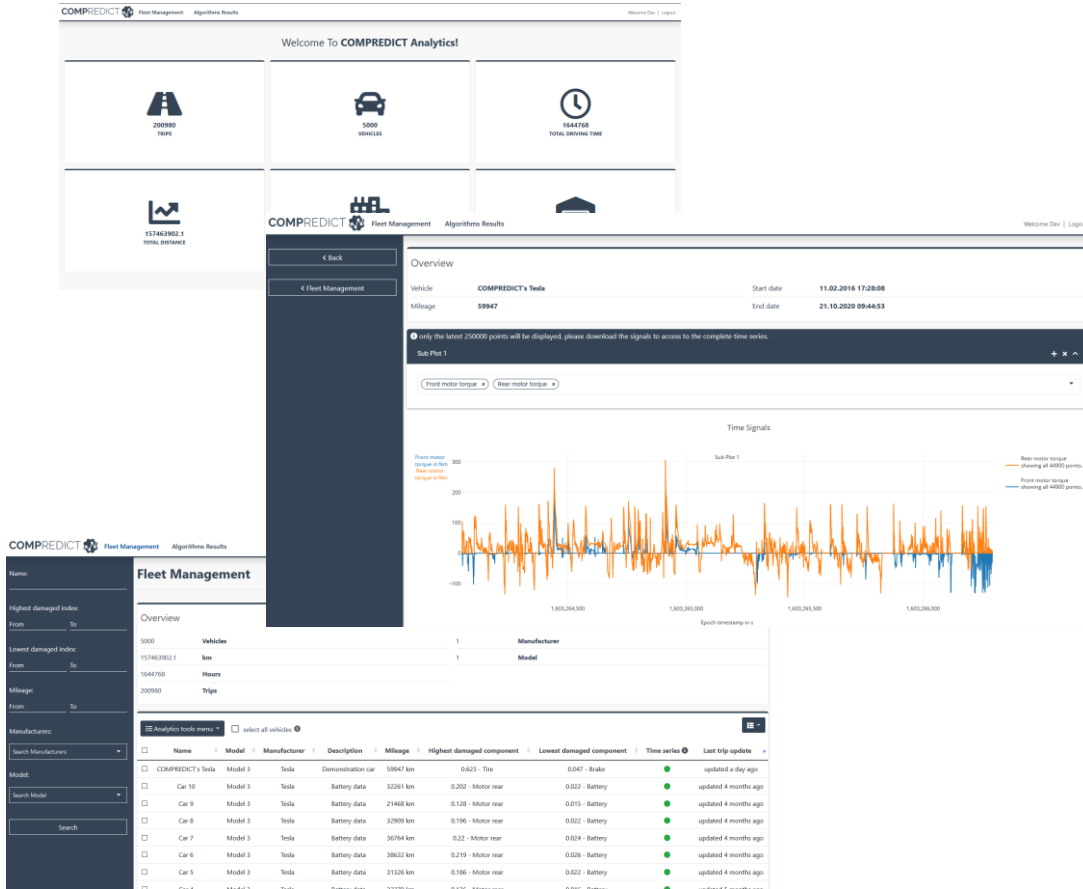
With **Virtual Sensors** and **Health & Usage Monitoring**,



we help mobility providers to **understand customers'** behaviors,  
**optimize design** and **minimize failure** risk!



# Our customers are already using our **SaaS platform**



Save up to **90%** of test vehicles' costs with Virtual Sensors

Up to  
**15 % cost savings**  
**15 % weight reduction**  
**10 % CO<sub>2</sub> footprint savings** with health monitoring

Up to  
**50 % more lifetime** with usage monitoring



# Some business cases

## Case 1: Virtual Sensors for development fleet with OEMs



### Context

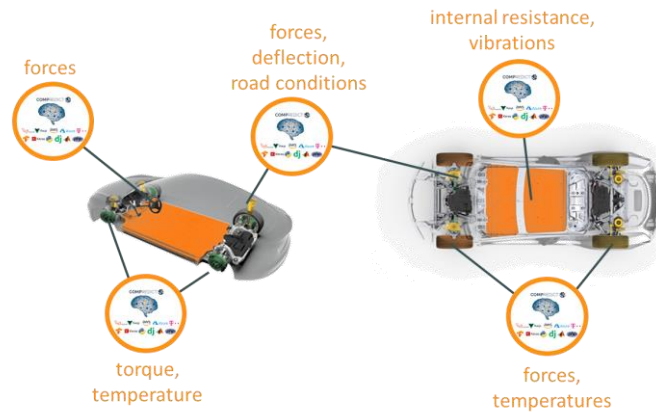
- To equip development vehicles with additional hardware sensors is **expensive** and **unreliable**
- **Lack of consistency** in data acquisition and management for development vehicles
- Engineers need access to additional insights to **understand the vehicle behavior** and to **validate** the design

### Current situation

- Only up to **5** development vehicles are usually equipped with additional sensors
- A fully equipped vehicle costs up to **500.000€**
- The **statistical basis is small**, so that conclusions are limited
- With EVs and the lack of know-how in this area, **risks for wrong design** are higher than ever

# Some business cases

## Case 1: Virtual Sensors for development fleet with OEMs



## Our value proposal

- Only 1 to 2 development vehicles are equipped with additional sensors, which are used as reference
- **Virtual sensors are run in the cloud** for other vehicles which are NOT equipped with sensors
- **Centralization and visualization of the data** on our platform
- **License fee** for the virtual sensors and platform

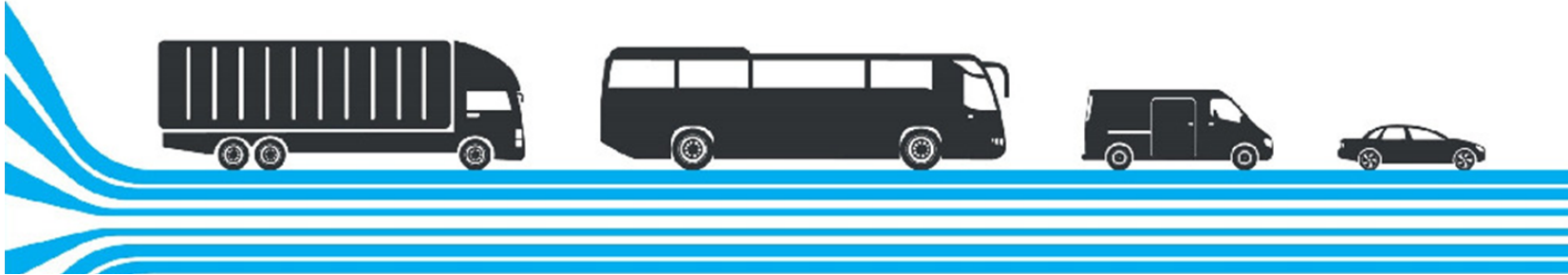
## Benefits for the customers

- **Up to 100** fully-equipped vehicles for tests with the Virtual Sensor technology
- **Costs** for equipped test vehicles **reduced by up to 95%**



# Some business cases

Case 2: Usage insights and predictive maintenance with telematics companies



## Context

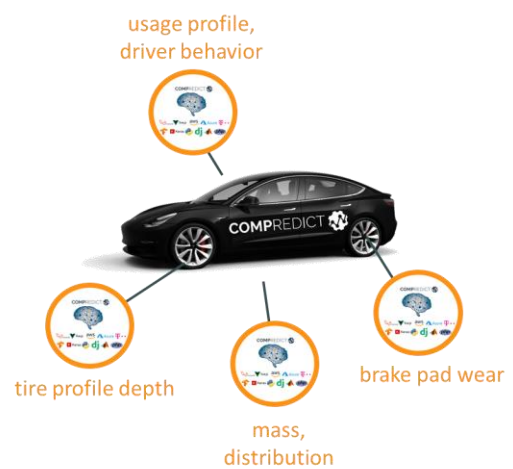
- Fleet operators and telematics companies are **brand-agnostic** and **independent from OEMs**
- Established companies have already broad **customer basis**
- Their business model is based on **subscriptions**, like ours

## Current situation

- These companies can **only gather and record standard / normed signals** from vehicles like DTCs
- There is a **need for more insights**, especially for **wear components** (e.g. tires, brakes, dampers)
- **Open for partnerships** with add-ons providers

# Some business cases

Case 2: Usage insights and predictive maintenance with telematics companies



## Our value proposal

- **Health and usage monitoring** as add-on for established telematics company within a cloud-to-cloud approach
- We **share the revenues** if the end customers subscribe to the add-ons

## Benefits for the customers

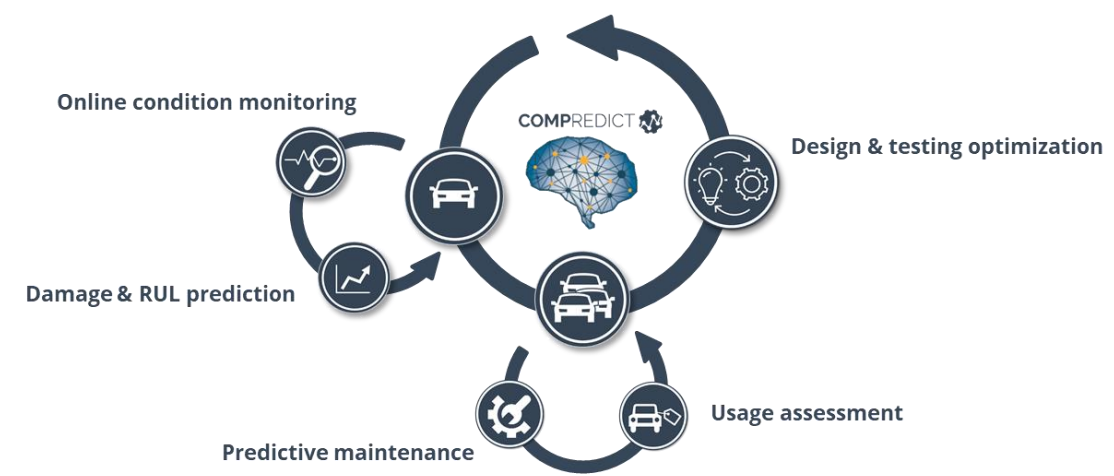
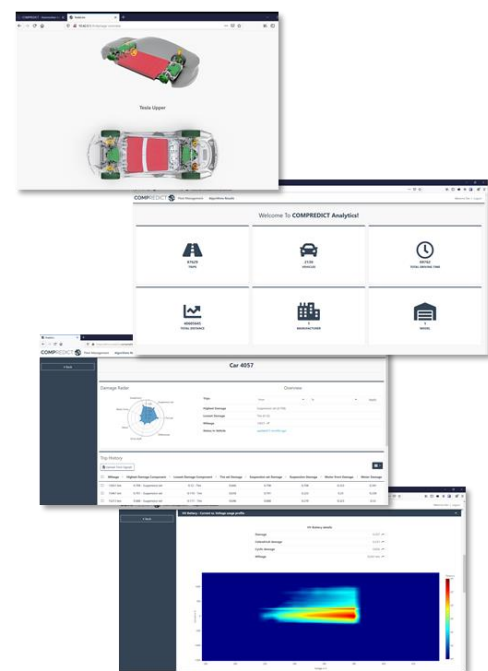
- **Less or no need for regular manual inspection** of wear components
- **Better planification** of the replacement of wear components
- **Increase of vehicle safety** by usage monitoring



# Our Vision

We consider vehicle usage insights as an essential part of **sustainable vehicle life-cycle**

to **maximize utilization** and **minimize environmental footprint!**



# Let's talk further!



## How to connect?

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