BUSINESS CHALLENGE
Over time, every car owner is likely to face an unexpected dead battery. Replacing a car’s battery is part of routine maintenance for a car, however, the problem lies in the fact that a dead car battery often comes at a surprise, costs time, and could potentially lead to an unsafe condition. No matter the situation, the manufacturer of the battery gets shunned in a negative light, often times negating repeat purchases, and impacting customer loyalty of recurring revenue.

THE SOLUTION
A large global telematics company developed a smart-device that plugs into the on-board-diagnostic (OBD) port that is standard on modern consumer vehicles. These devices have been rapidly adopted by vehicle manufacturers as a means of attaining additional information of vehicles on the roads. The devices collect data from the car’s on-board computer, in real-time, and transmit these data back to a server via cellular towers. Data that was never known before is now at their fingertips to react to.

Predikto was hired to develop an automated machine learning solution to help predict whether and when specific consumer car batteries would fail in the near future, providing enough time that a owner could have a power supply replaced before the battery suddenly failed.
RESULTS

Using very detailed measurements collected from vehicles, Predikto developed a scale of battery health, and in collaboration with the telematics company, produced a health score that could be acted upon. Predikto was able to accurately predict the likelihood that a car’s battery would enter a state of poor health, likely leading to failure, at some point in the next 30 days.

In this particular case, data were drawn from each car’s diagnostic trouble codes and alerts, in combination with usage, wear and tear, and movement on the ground. Data were also used specific to the driver of the vehicle and his or her driving behavior. Furthermore, Predikto built into the data collection that included current weather conditions, as well as the time and place of each car at any point in time.

BUSINESS CHALLENGES
The unpredictability of battery failure.

SOLUTION
Actionable and tailored predictions of the health of a car battery

RESULTS
Reduced downtime, increased loyalty, and greater revenues.