

netradyne

How Artificial Intelligence and Edge Computing are Transforming Driver Safety, Retention and Recognition



The Challenge: Road Accidents are the leading cause of loss of life & property



- ❑ [US] 35K deaths & ~\$800B financial loss due to road accidents in 2015*
- ❑ [Globally] est. 1.25M deaths annually**
- ❑ *94% of accidents are due to driver related reasons****

*<https://crashstats.nhtsa.dot.gov>

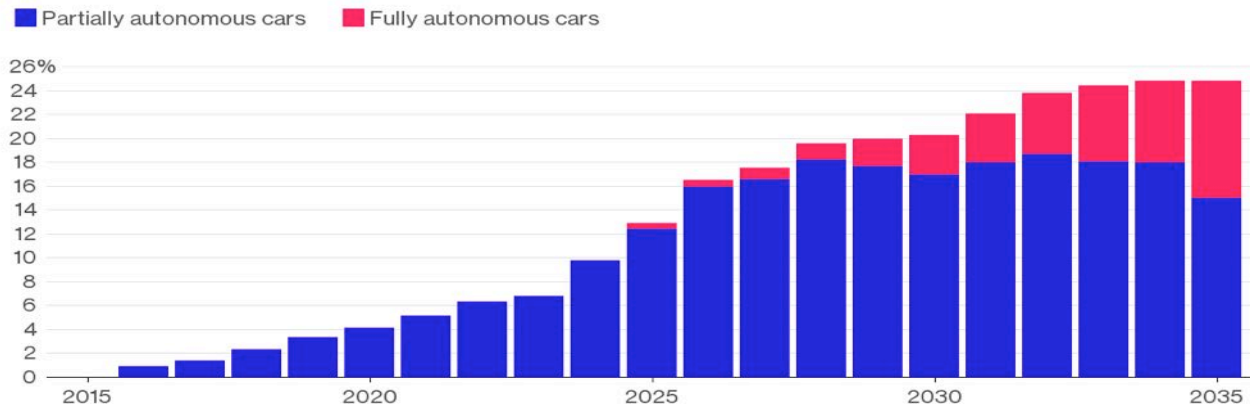
** WHO

***NHTSA, "Traffic Safety Facts", Feb, 2015

Autonomous Vehicles will take a long time to replace the large installed base of 'human driven' vehicles

Autonomous Car Sales Will Surge By 2035

The cars will represent 25 percent of the global market



Source: The Boston Consulting Group

Note: 2015 data

Bloomberg

Assuming this prediction is true..

< 10% of all vehicles on the road will be autonomous by 2030!

*Need to invest in our drivers now to have meaningful impact on safety!
Can we leverage the same technology to improve driver behavior?*



Capturing and Analyzing every minute of every driving hour



- 360 degree QUAD HD Cameras
- NVIDIA TX1 processor
- 4G LTE / WiFi / BT / GPS
- 120 dB HDR road-facing camera
- 9-Axis Accel / Gyro / Magneto Sensor
- J-1939/OBD-II integration

IoT with Edge Computing

Pushing Intelligence to the “Edge”



Commercial Fleets
Fleet Insurance*

~22M Commercial Vehicles
[Most large fleets are self-insured]

Consumer Insurance

US Auto Insurance Market at \$227B

Critical Events – Detection. Causality. Reasoning



Hard Braking



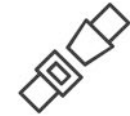
Hard Acceleration



Traffic Signals



Stop Signs



Seat Belt



Hard Turns



High gForce



Following Distance



Speed Threshold

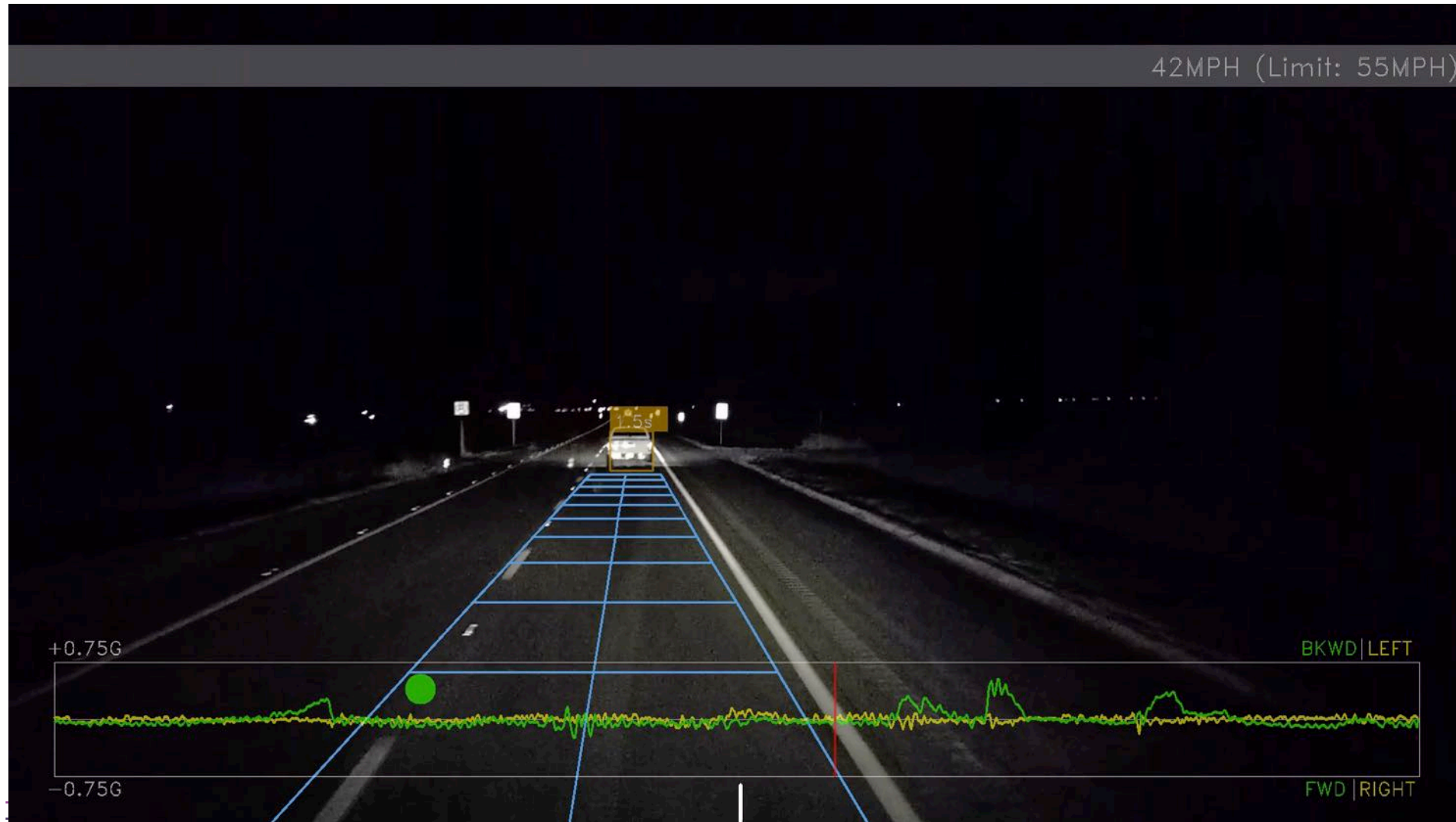


Fatigue Detection

Hard Braking with cause



Aggressive Driver

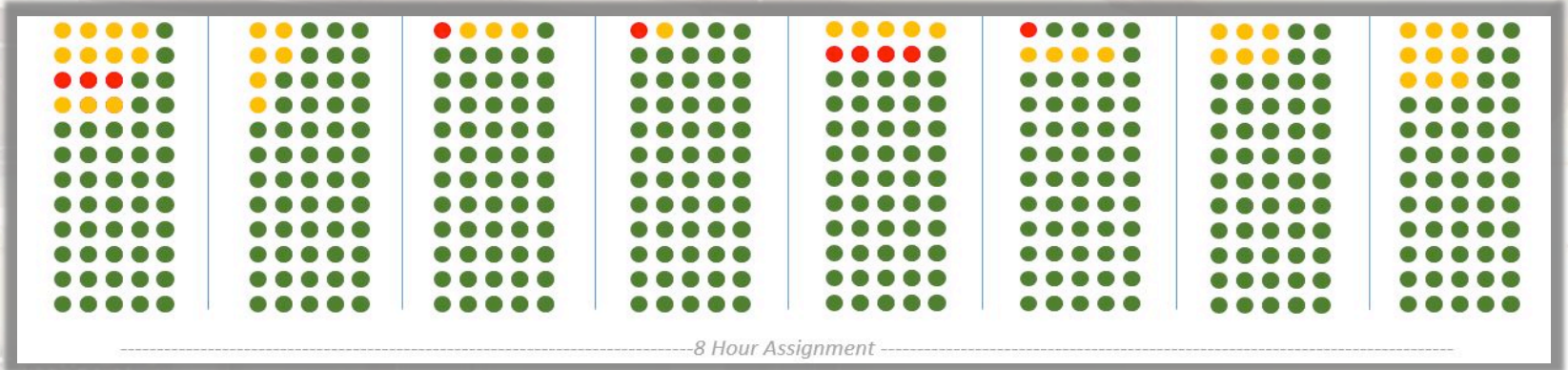


Traffic Light Violation



Stop Sign Violation





Great!
Incentive @ 900
}
Score = 700
Individual Coaching

driver*i* Value Proposition

Risk Assessment

- Improved Risk Prediction using GreenZone™
 - More accurate premium setting
 - More targeted customer acquisition/retention

Driver Retention

- Recognize good drivers and positive driving
- Identify & Reward good drivers

Risk Reduction

- Improved driver coaching
- Incentives based on GreenZone™ Score
- Immediate intervention in high risk situations*

Claims Management

- Increase efficiency of claims process
- Reduce Litigation & Subrogation costs*

Thank you