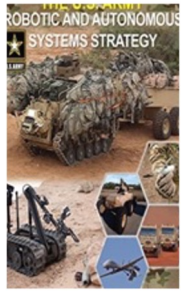


MICRO-AUTOMATED VEHICLES



My AV Journey



ARIBO, Fort Bragg, NC
1st plans and piloting AVs on military bases. 1st commercial AV in US



AV Demo @ CES 2014
1st Level-4 AV Demo @ CES
Automated Truck Working Group
Industry, DOT, DOD
Development, testing, deployment strategies



Averifed - Trucking
Safety/Performance Verification
1st 3rd Party AV Safety & Performance Verification
dRISK - AV Training & Risk Assessment NASA tech applied to AV risk identification and mitigation

US Ignite / US Army AV Pilots
Scalable AV strategies on military bases (ERDC & Fort Carson)

UGVs/UAVs Swarms
Applying swarm artificial intelligence to AVs (DARPA spinoffs)



Munich Reinsurance
1st AV insurance product (One of the world's largest reinsurance groups)



GATEWAY London
1st AV pilots in UK

North American Auto Show
1st Level-4 AV @ NAIAS
ITS World Congress
1st Level-4 automated Shuttle @ ITS WC

AAA AV Strategist
1st Public Access AV Shuttle Pilot: Las Vegas



PME AV Product Innovation
AV development roadmap & 1st A-Pod in US

CES 2019 Aurigo AV Demo
1st automated pod demo in
Michigan Mobility Challenge
1st public pilot with accessible A-Pod
Dubai World Challenge for Self-Driving Transport
1st automated shuttle pilot in UAE (1 of 6 judges)



SMART AMERICA  AL CITY IS CHALLENGE



DOD BUSINESS CASE ANALYSIS

Highest ROI R&D (2012)



People Moving / Transit



Goods Movement / Logistics





Exciting Technology Vision and Predictions



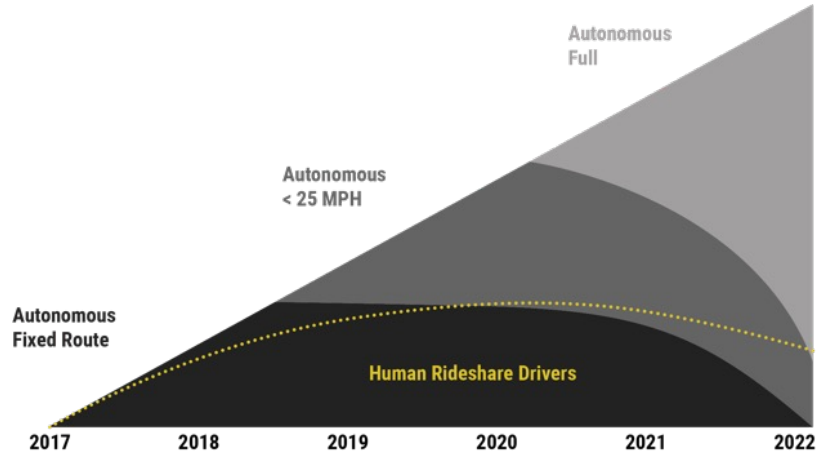




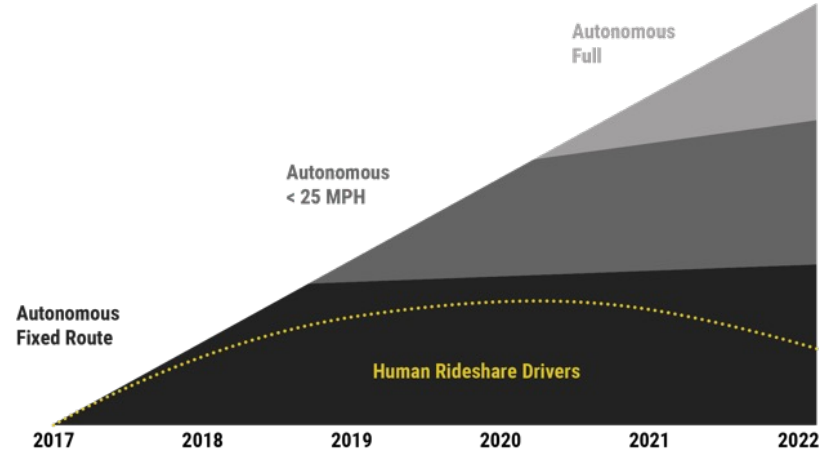


Projections/predictions (2016)

One opinion...



Corey's opinion...



ashable

AVCO

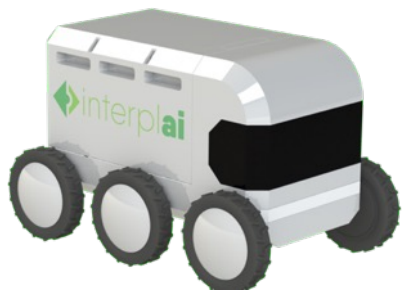
A high-angle shot of a parking lot filled with a fleet of white AVCO autonomous electric vehicles (EVs). The vehicles are parked in neat rows, angled towards the camera. Each vehicle has a white body with blue and red accents on the front and side. A large white sensor dome is mounted on the roof of each vehicle. The background shows a paved parking lot with white lines and a few other cars in the distance.

The country's **largest fleet**
of autonomous EVs...





TRENDS AND
TRANSITION



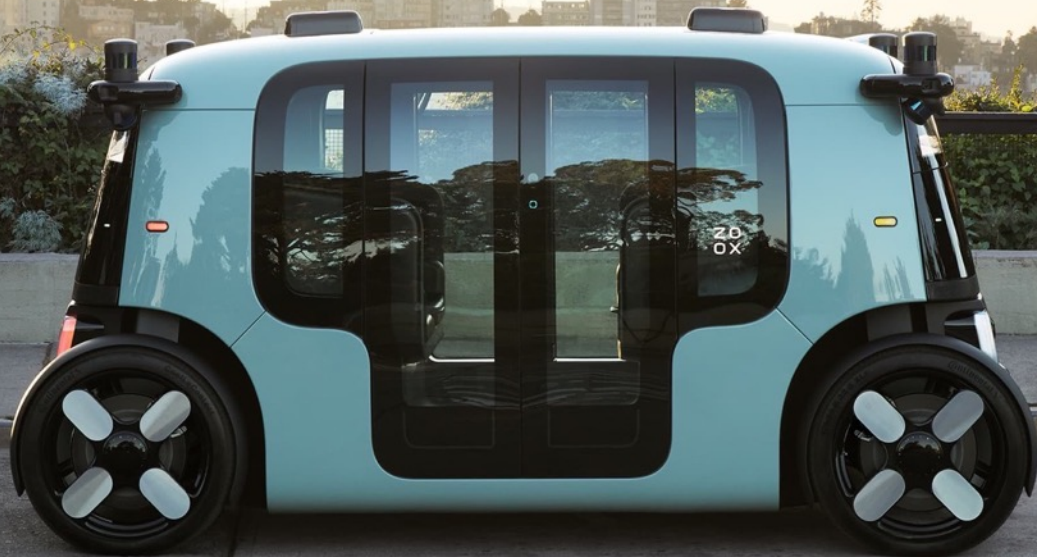
ACCELERATING AUTONOMY

Walmart



ARGO^{AI}

self-driving system





Yandex

Yandex

Campus Cargo



Delivery



Delivery



Delivery

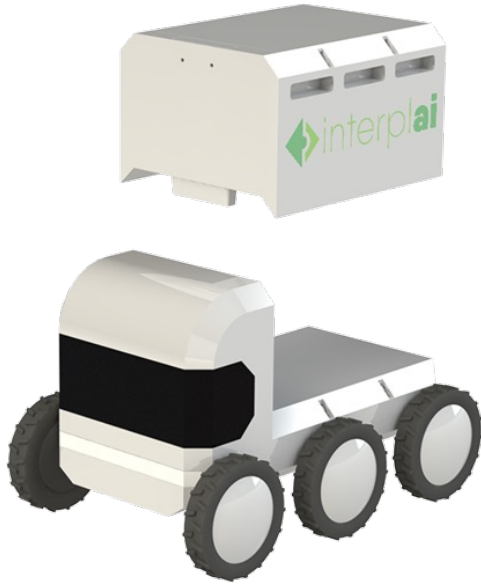


Bedestrian



evTS Firefly

Delivery



Interplai



Refraction.ai



SAFE DEPLOYMENT PROCESS

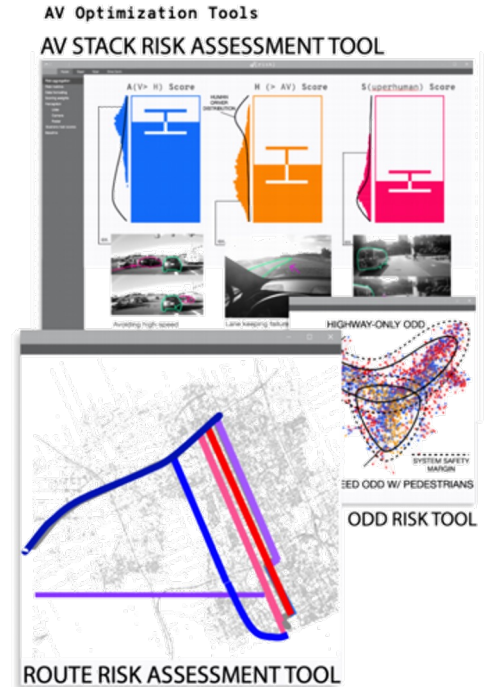
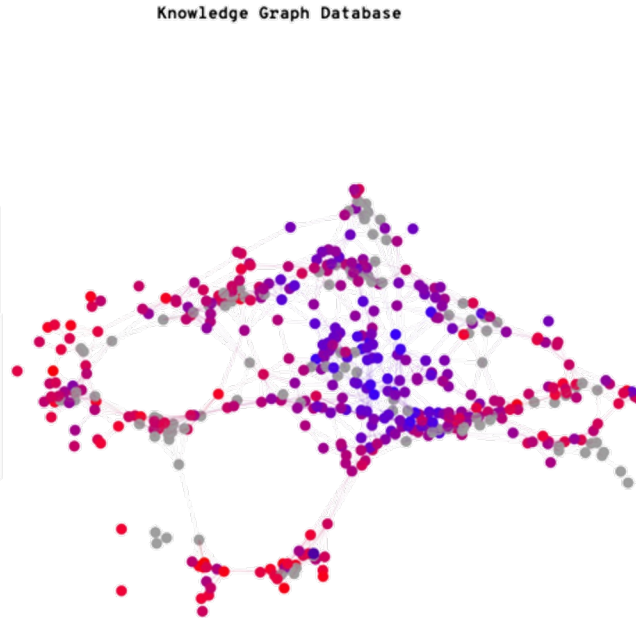
PLAYBOOK

AV Planning through a Playbook construct.



GENAV ODD RISK ASSESSMENT

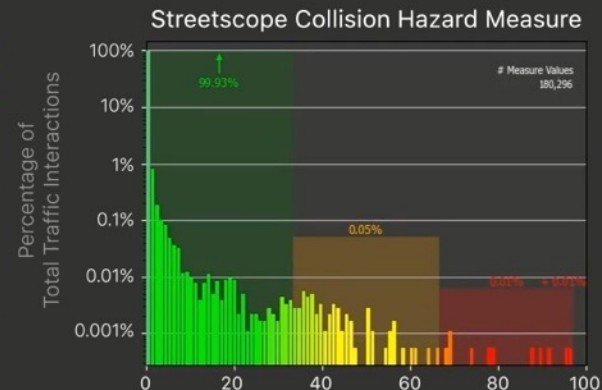
powered by $d(\text{risk})$

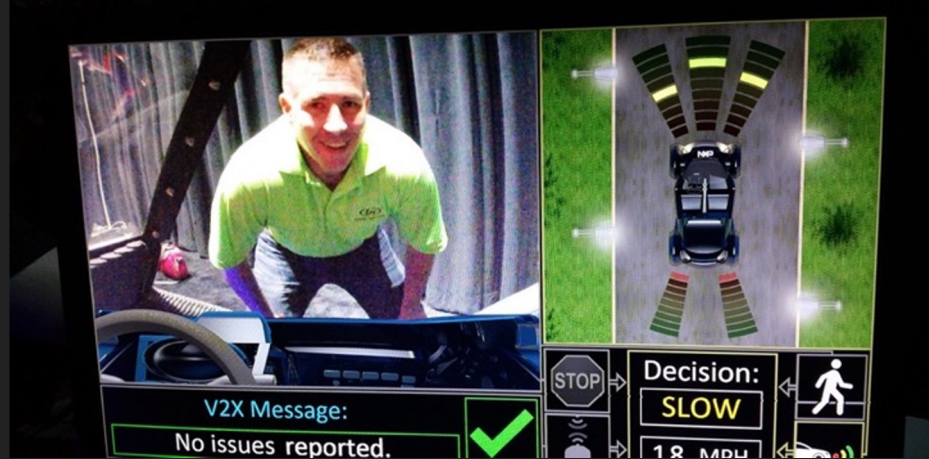
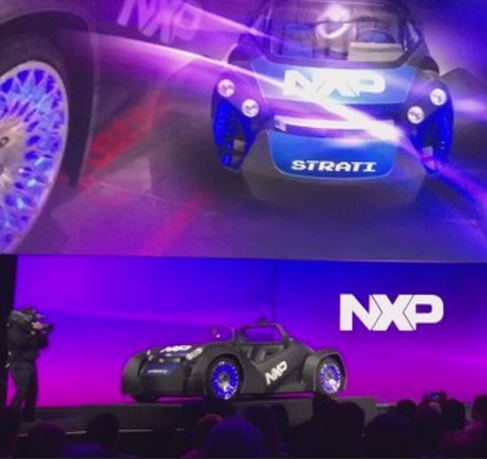


It is important to assess the ODD to align to the capabilities of the AV ensuring its ability to operate safely and effectively

HOLISTIC AV SAFETY ASSESSMENT







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