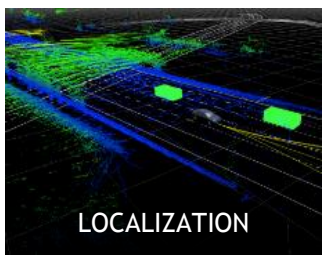
ACCELERATING THE RACE TO SELF-DRIVING CARS

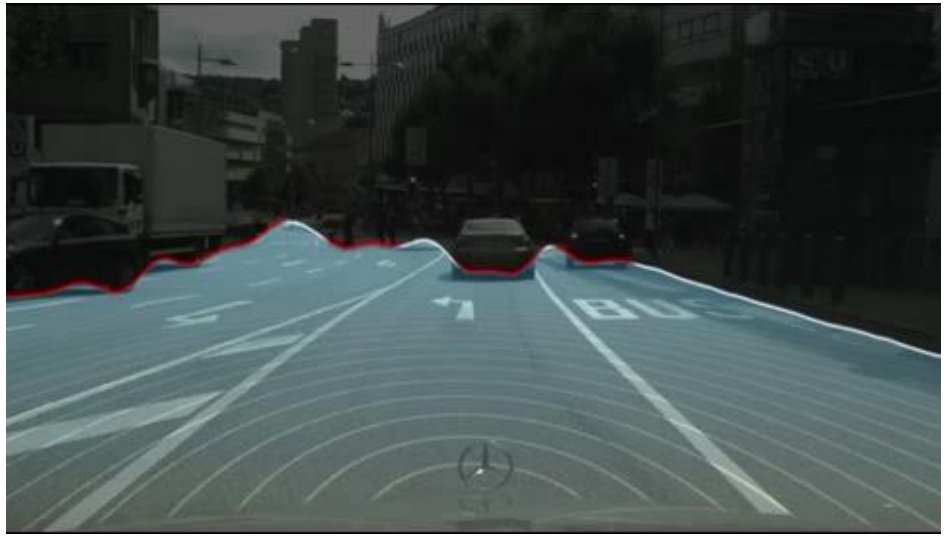
September 13, 2016

SELF-DRIVING CARS ARE AN AI CHALLENGE



DEEP LEARNING

AI FOR SELF-DRIVING CARS



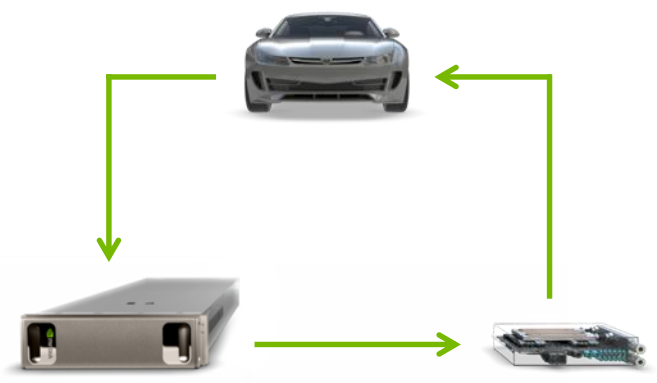
FREE SPACE DETECTION

CAR 3D DETECTION

END-TO-END AI

Caffe
CNTK
KALDI
TensorFlow
theano
torch

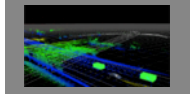
Training on DGX-1



NVIDIA DGX-1

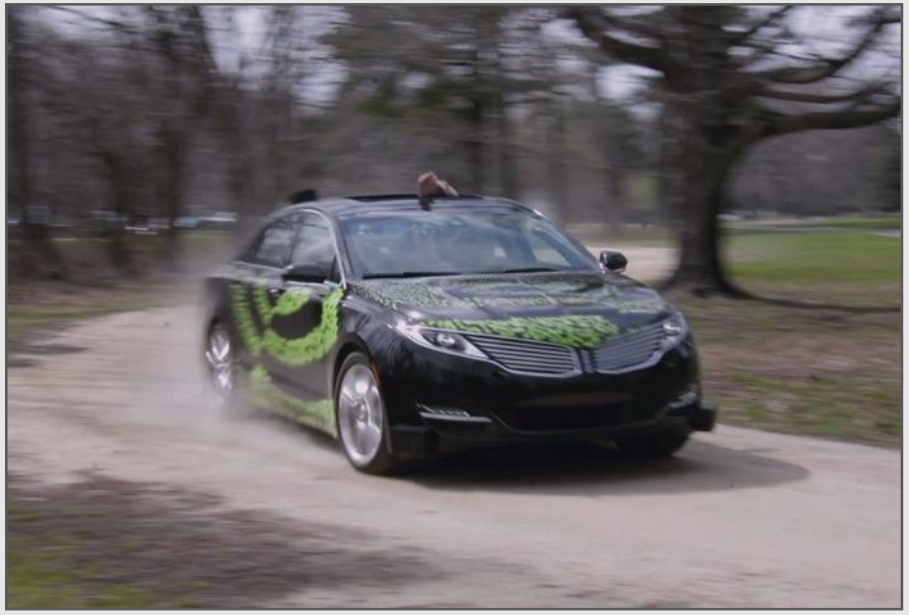
NVIDIA DRIVE PX 2

MAPPING


LOCALIZATION

DRIVENET

Driving with DriveWorks

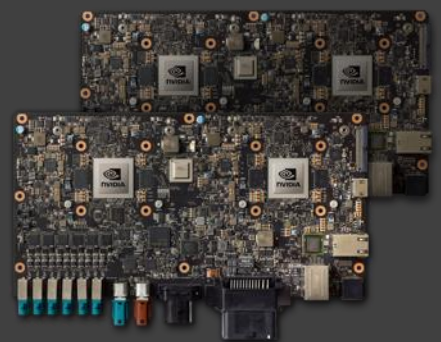


V56 GNP

NVIDIA DRIVE PX 2

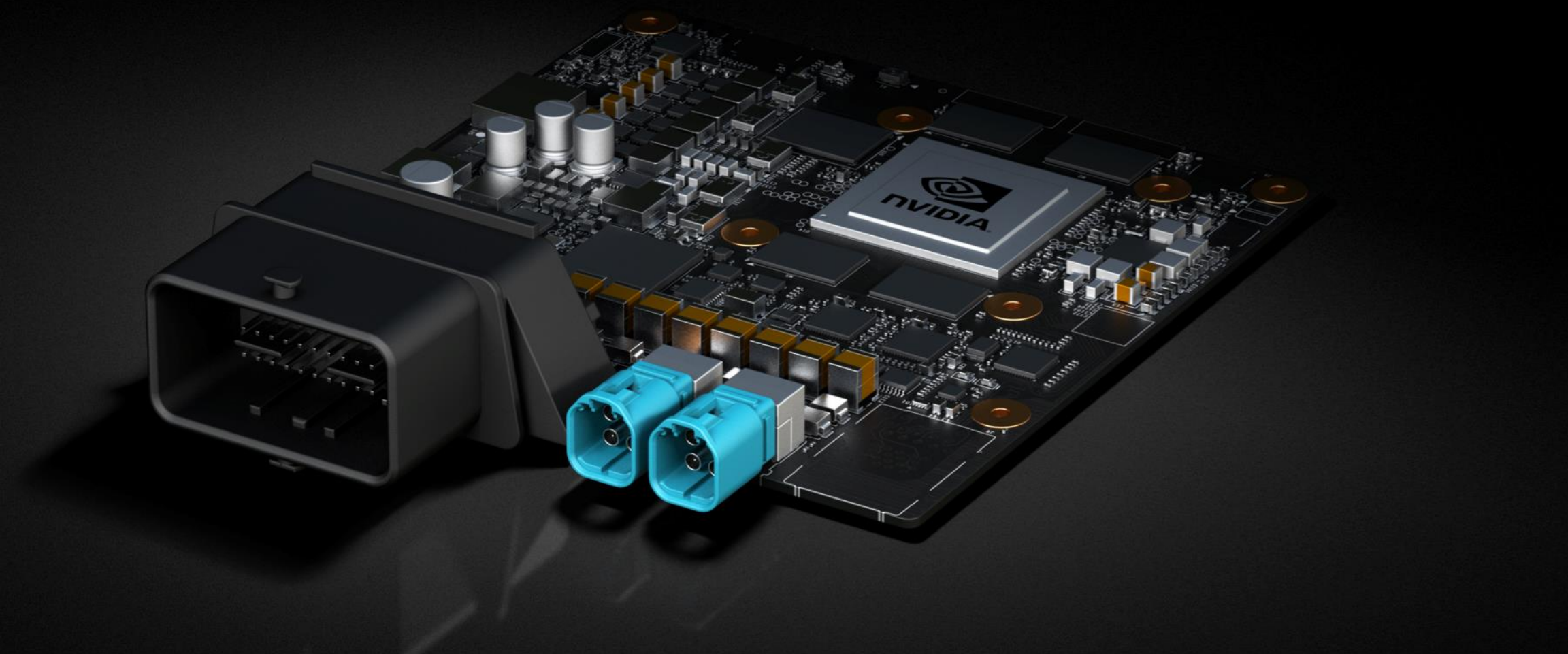
AutoCruise

AutoChauffeur



Full Autonomy

NVIDIA DRIVE PX 2 AUTOCRUISE



NVIDIA AI VEHICLES

Baidu

nuTonomy

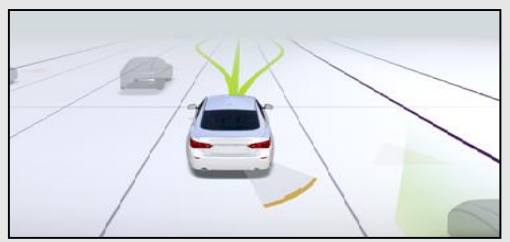
Volvo

WEpods

NVIDIA DRIVEWORKS SDK

Autonomous Mapping & Driving Applications

NVIDIA DRIVEWORKS SDK

PERCEPTION	LOCALIZATION	PLANNING	VISUALIZATION
Sensor Fusion	Map Fusion	Trajectory	
Objects (NVDRIVENet)	Landmarks (NVDRIVENet)	Behavior (NVDRIVENet)	
Segmentation	GPS Trilateration	Mission	

NVIDIA System Software

NVIDIA
THANK YOU!