



TRANSFORMING TRANSPORTATION WITH AI

Danny Shapiro | RBC | May 31, 2018

SAFE HARBOR

Forward-Looking Statements

Except for the historical information contained herein, certain matters in this presentation including, but not limited to, statements as to: our growth and growth drivers; our market opportunities and TAM; the benefits, impact, and performance of: autonomous vehicles and our products, technologies, services, and programs; all vehicles being autonomous; our strategies; market trends; future financial results, estimates and forecasts; and other predictions and estimates are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements and any other forward-looking statements that go beyond historical facts that are made in this presentation are subject to risks and uncertainties that may cause actual results to differ materially. Important factors that could cause actual results to differ materially include: global economic conditions; our reliance on third parties to manufacture, assemble, package and test our products; the impact of technological development and competition; development of new products and technologies or enhancements to our existing products and technologies; market acceptance of our products or our partners' products; design, manufacturing or software defects; changes in consumer preferences and demands; changes in industry standards and interfaces; unexpected loss of performance of our products or technologies when integrated into systems and other factors. For a complete discussion of factors that could materially affect our financial results and operations, please refer to the reports we file from time to time with the SEC, including our Form 10-Q for the fiscal period ended April 29, 2018. Copies of reports we file with the SEC are posted on our website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future performance and speak only as of May 31, 2018, based on information currently available to us. Except as required by law, NVIDIA disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

THE MOST EXCITING TIME IN TECH HISTORY



GAMING
\$100B Industry



ARTIFICIAL INTELLIGENCE
\$3T IT Industry



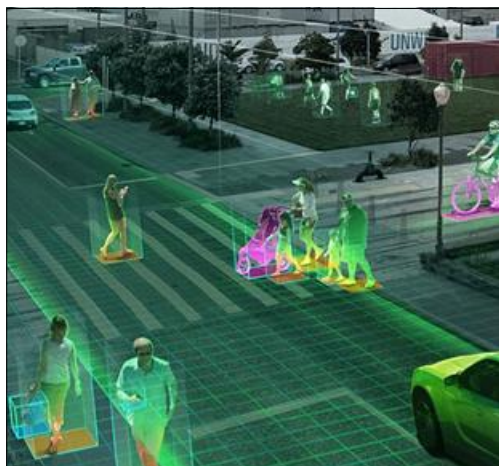
AUTONOMOUS VEHICLES
\$10T Transportation Industry

ALL VEHICLES WILL BE AUTONOMOUS



NVIDIA GAME CHANGERS

Key Strategies



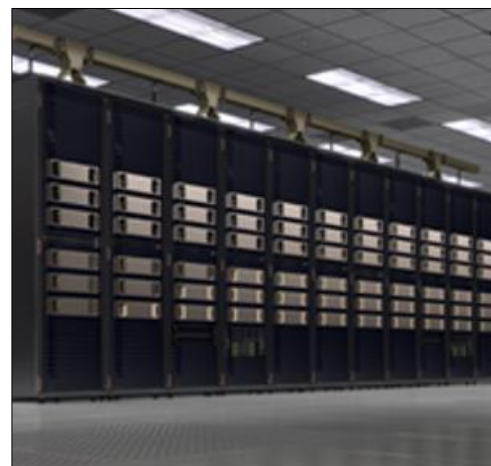
AI

The Computing Model
for AV



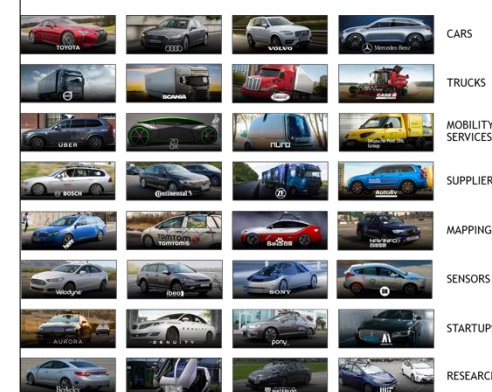
XAVIER PROCESSOR

One Architecture
From L2 to L5



NVIDIA DRIVE END-TO-END SYSTEM

Collect Data
Train Models
Simulate and Test
Drive

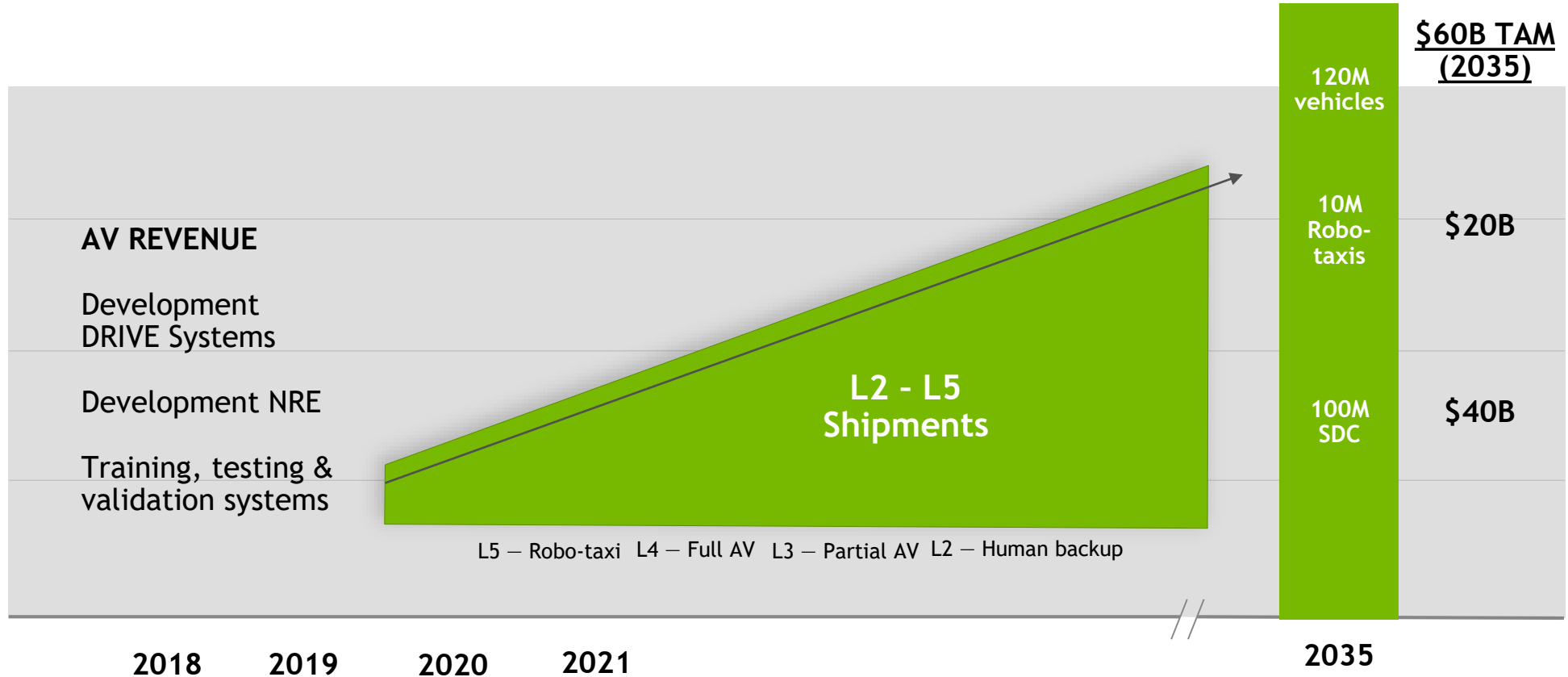


OPEN PLATFORM

370+ Partner
Ecosystem

AV IS A \$60B OPPORTUNITY

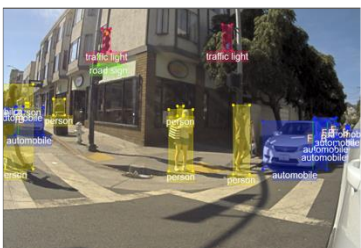
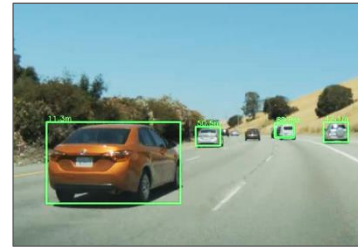
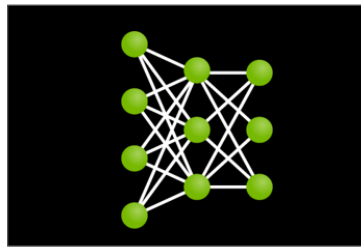
Every Vehicle Will Be Autonomous



Source: ABI Research

END-TO-END SYSTEM

From Training to Testing to Driving



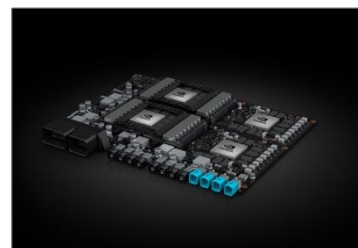
Data Factory



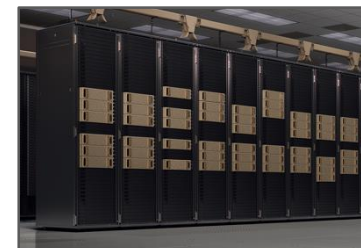
Training on DGX



3D-SIM on DRIVE CONSTELLATION



DRIVE AV on DPX



RE-SIM on DGX

1+ petabyte per
car per year

10+ DNNs,
1+ million images
per DNN

10B+ miles to ensure safe driving

Self driving cars by 2020

16 petaFLOPs for every paved road in the US in 1 day

Sources: NVIDIA, RAND Corporation

NVIDIA DRIVE™ CONSTELLATION

AV VALIDATION SYSTEM

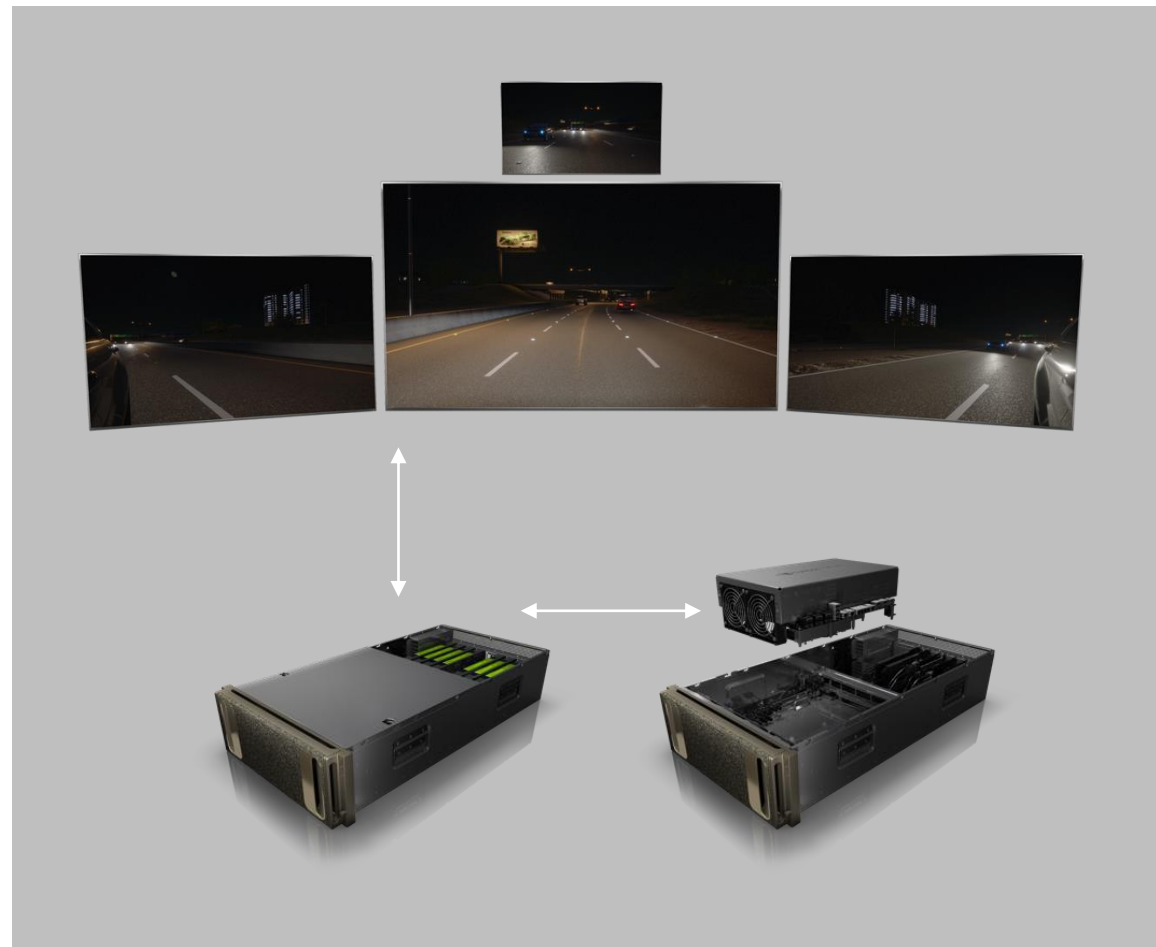
Virtual Reality AV Simulator

Same Architecture as DRIVE Computer

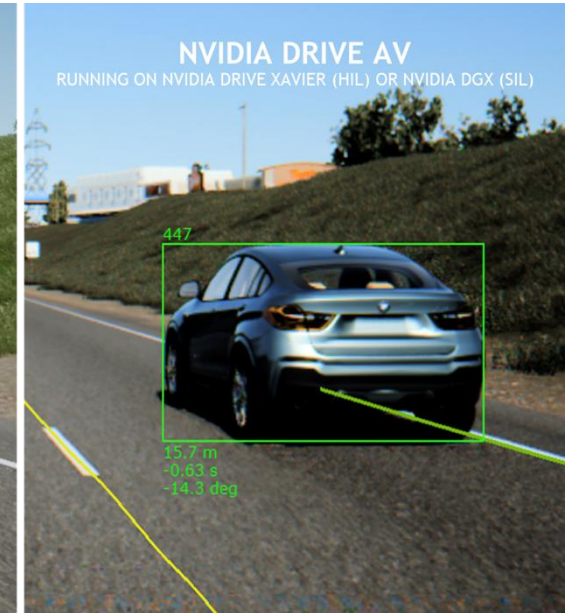
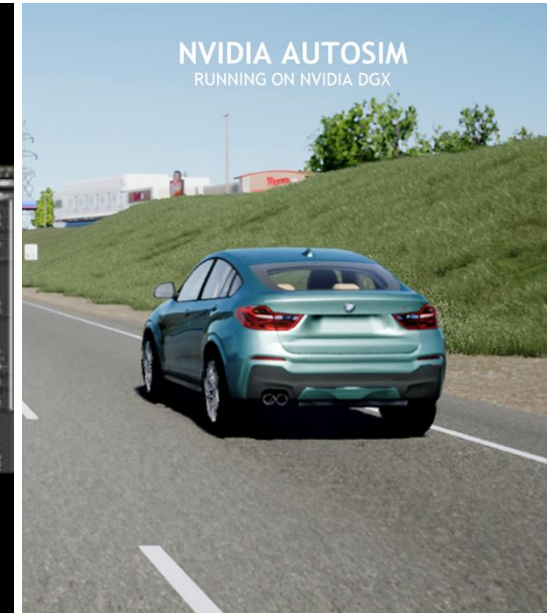
HIL and PIL Support

Simulate Rare and Difficult Conditions,
Recreate Scenarios,
Run Regression Tests

Safely Drive Billions of Miles in VR



NVIDIA DRIVE™ SIM



SIMULATING VS DRIVING THE WORLD — VALUE PROPOSITION

Per the Rand Corporation report, to drive ten billion miles ...
Would require 50,000 drivers, \$10 billion dollar cost over 3 years

The same task using DRIVE Constellations would take 7 months, at a fraction of the cost.

THE POWER OF AN OPEN PLATFORM

370+ PARTNERS DEVELOPING ON NVIDIA



TOYOTA



Audi



VOLVO



Mercedes-Benz

CARS



Volvo



SCANIA



Peterbilt



CASE IH

TRUCKS



UBER



ZOOX



NURO



Deutsche Post DHL Group

MOBILITY
SERVICES



BOSCH



Continental



ZF



Autoliv

SUPPLIERS



here



TomTom



Baidu



NAVINFO

MAPPING



Velodyne



ibeo



SONY



OUSTER

SENSORS



AURORA



ZENUTY



pony



UCARWITA

STARTUPS



Berkeley



UNIVERSITY OF WATERLOO



MIT

RESEARCH

