

# **The Car of Tomorrow**

MARK GILL

VP AUTOMOTIVE ELECTRIFICATION AND INFOTAINMENT



## **Key Takeaways**

#### **Drivers**



Drivetrain Electrification to Double ADI's SAM by 2022



Autonomous Vehicles Create a \$3B Opportunity



Heritage in High Performance Solutions Connecting the Physical and Digital Worlds

#### **Impact**



Highest Performance Battery Management Solutions Drive 360

Unique ADI Drive360™ Platform in Radar and Lidar



Complementary ADI and LTC Portfolios Accelerate Growth up to 3x SAAR

\$600

Dollar Content Opportunity per Vehicle by 2025



#### **ADI Automotive Business Overview**





Key Supplier Since Early 1990s Long Product Life Cycles



Full-Scale Leverage of ADI Technology Portfolio



Diversified Across Customers, Products, and Markets



## Driving ADI Dollar Content Opportunity to \$600 from \$250 per Vehicle



2025 **\$600** per vehicle

Today \$250 per vehicle

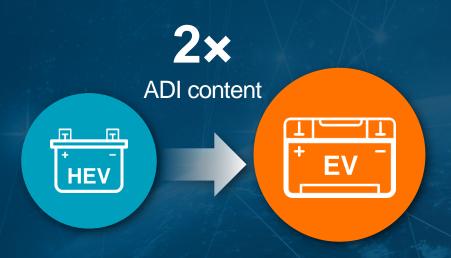
Time



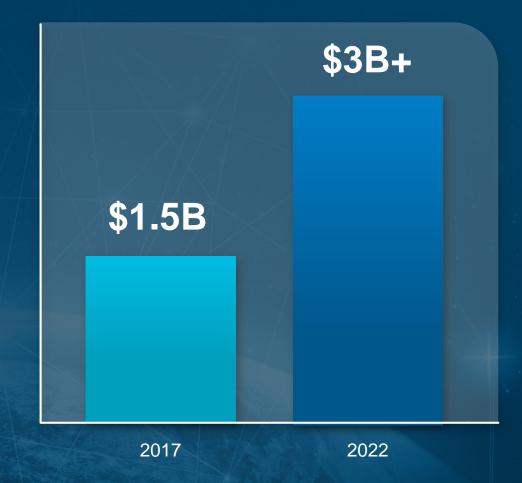
# Electrification of the Car Drives a 2× ADI SAM by 2022

#### **Growth from Electric Vehicles**



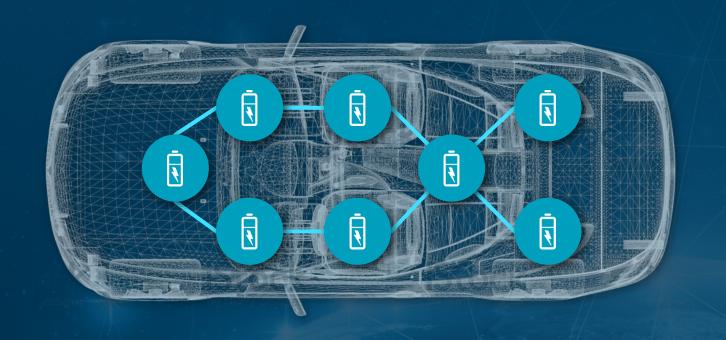


#### **Electrification SAM**





# Delivering the Highest Performance Battery Management Systems (BMS) for EV and HEV





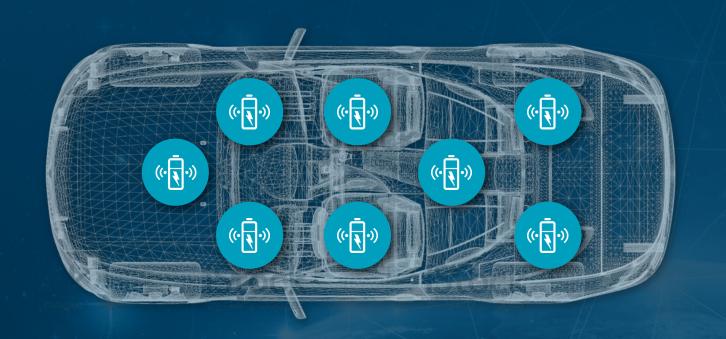








### **Next-Generation BMS Goes Wireless**





Reduces Weight



Eliminates Wires, Connectors, Assembly



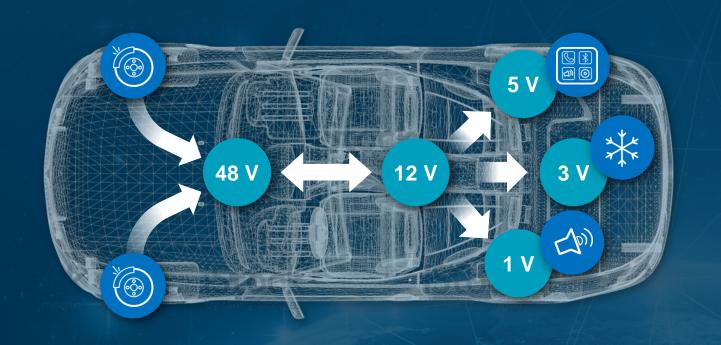
Highest Reliability



Safer Than Wires



# LTC's Highly Complementary Power Management Solutions Complete the ADI Signal Chain



#### Silent Switcher®



Lowest Radiated Noise



**Extremely Rugged** 

## μModule®



Highest Power Density



Easy to Use







Radar

Lidar

Inertial



# ADI's Sensor Accuracy, Precision, Performance Drives the Al Engine

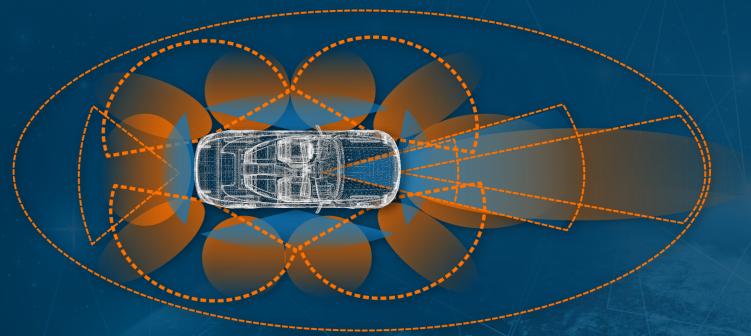




# Life Saving Radar and Lidar Performance

# **\$3 Billion** Opportunity

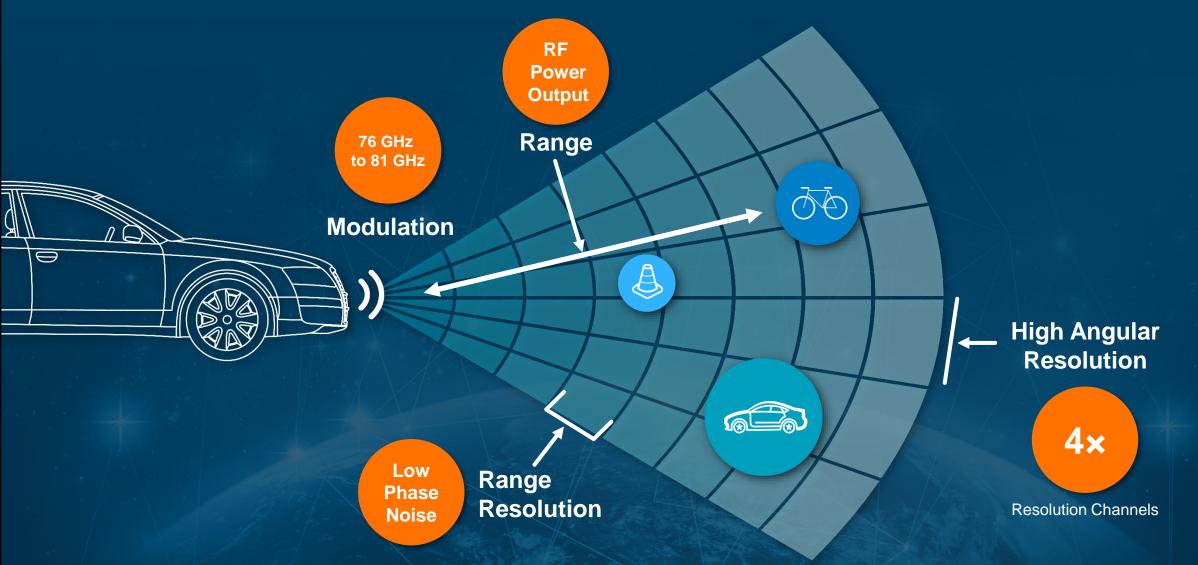








# ADI Drive360 Enables High Precision, High Resolution, Long Range Radar





## **Drive360 RF CMOS 77GHz Radar Platform**

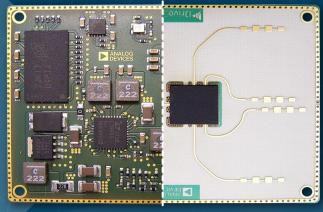
### **Today**



#### **Optimizations**

**Front** 

**Back** 



Optimized Power Management RF CMOS Integration

#### **Future**



>8×

Smaller Footprint

Receive Channels





MIMO Capable

RF Performance



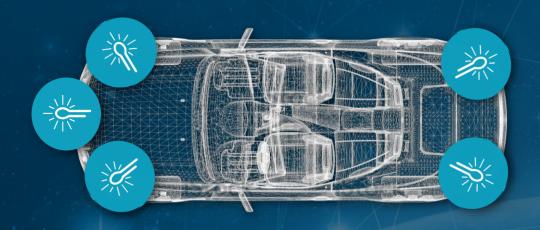
Digital Integration



### Solid-State Lidar—One of a Kind

# \$1 Billion

Opportunity by 2027

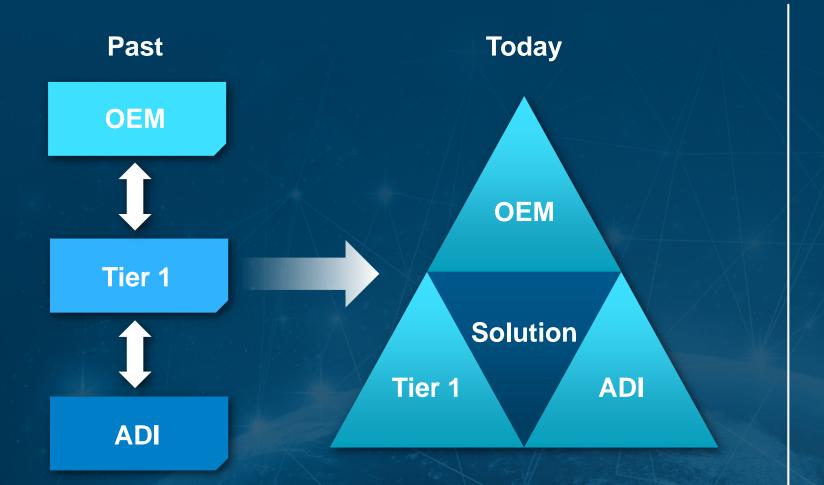


## **Advantages**





## **Accelerating Innovation with OEM and Tier 1 Partners**



#### **Benefits**



Application Level Insight



Reduced Time to Market



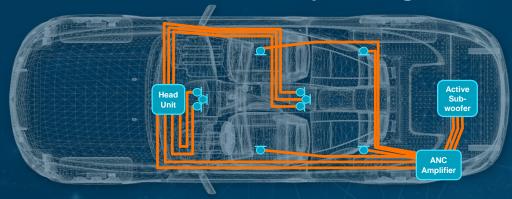
Stronger Partnerships



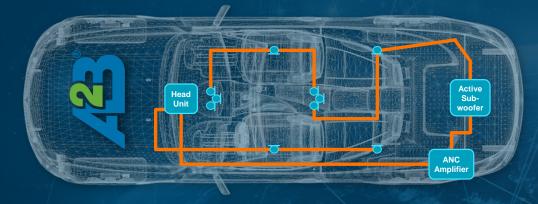
# Example of Partnership Innovation—A<sup>2</sup>B® Accelerated Adoption



#### **Traditional Heavy Wiring**



#### A<sup>2</sup>B Lightweight Harness





Lighter Weight



Fuel Efficiency



Tax Savings



System Cost Savings



Highest Fidelity
Audio



## Our Vehicle Content Opportunity Accelerates to \$600 from \$250 by 2025



#### **Electrification**

- Battery monitoring
- Power distribution network
- Start-stop

- Electric drive
- Motor control
- · Chassis control

Today
\$250
per vehicle

2025 **\$600** per vehicle



#### **Cabin Electronics**

- Advanced speech
- Noise cancellation
- HMI
- Multichannel audio
- Telematics
- Surround view cameras
- Driver health monitoring



#### Safety

- Radar
- Lidar
- Crash sensing

- Stability control
- · eCall



## **Key Takeaways**

#### **Drivers**



Drivetrain Electrification to Double ADI's SAM by 2022



Autonomous Vehicles Create a \$3B Opportunity



Heritage in High Performance Solutions Connecting the Physical and Digital Worlds

#### **Impact**



Highest Performance Battery Management Solutions Drive 360

Unique ADI Drive360™ Platform in Radar and Lidar



Complementary ADI and LTC Portfolios Accelerate Growth up to 3x SAAR

\$600

Dollar Content Opportunity per Vehicle by 2025





# **Analog Devices 2017 Investor Day**

POWERFULLY CONNECTING THE PHYSICAL AND DIGITAL WORLDS

