

Fuel Efficiencies - A Supplier Perspective



June 4th, 2009

Our Beliefs

Respect
Collaboration
Excellence
Integrity
Community

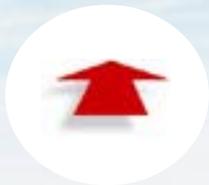


Outline

- BorgWarner Overview
- Fuel Efficiencies
- Summary

The BorgWarner Strategic Difference

- Technology Leadership Drives Growth
- Customer and Geographic Diversity
- Cost Focus
- Financial Strength and Discipline



feel good
about driving

BorgWarner at a Glance

- 2008 Sales: **\$5.3 Billion** (\$6.0B with NSK-Warner)
- Employees: **14,000**
- Operations: **60 Locations**
18 Countries
- Products: **Engine, Transmission and AWD systems**
- Market Drivers: **Fuel Economy** 
Emissions 
Performance 

BorgWarner = Powertrain Innovation

Thermal Systems

Thermal Management
Components and Systems
Visctronic® Systems
Fans / Fan Drives
Oil Pumps

Chain Systems

Engine Valve Timing Systems
Timing Chain
Variable Cam Timing
HY-VO® Transmission Chain

Transmission Systems

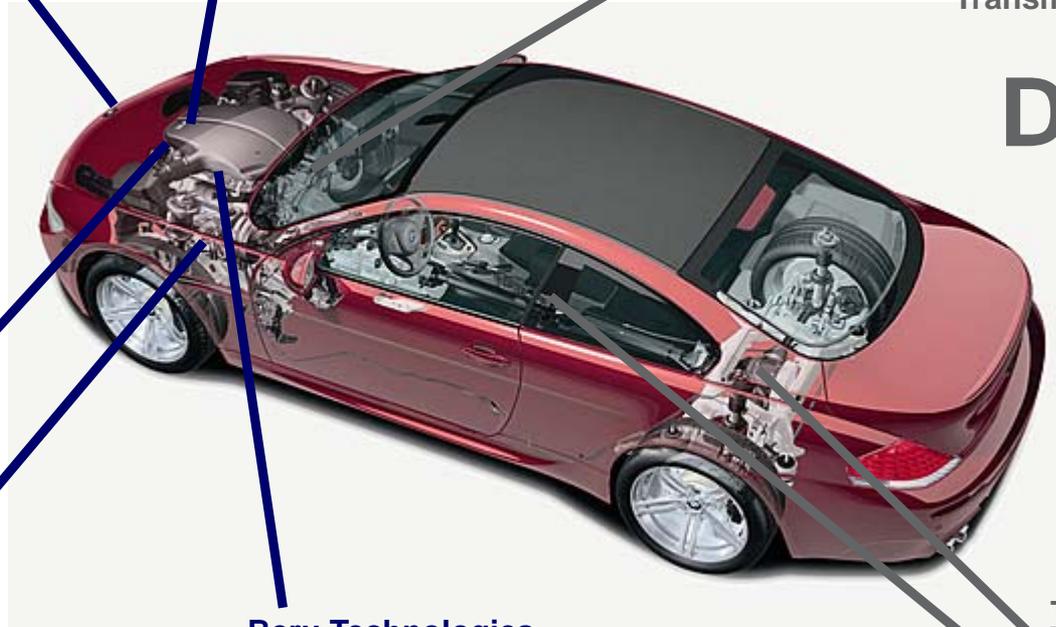
DualTronic® Clutch Modules
DualTronic® Control Modules
Solenoids / Solenoid Modules
One-way Clutches
Friction Plates
Transmission Bands

Engine

74% /sales

Drivetrain

26% /sales



Emissions Systems

Emission Controls
Secondary Air Systems
Actuators

Turbochargers

Wastegate
Variable Turbine Geometry (VTG)
Regulated 2-stage (R2S™)

Beru Technologies

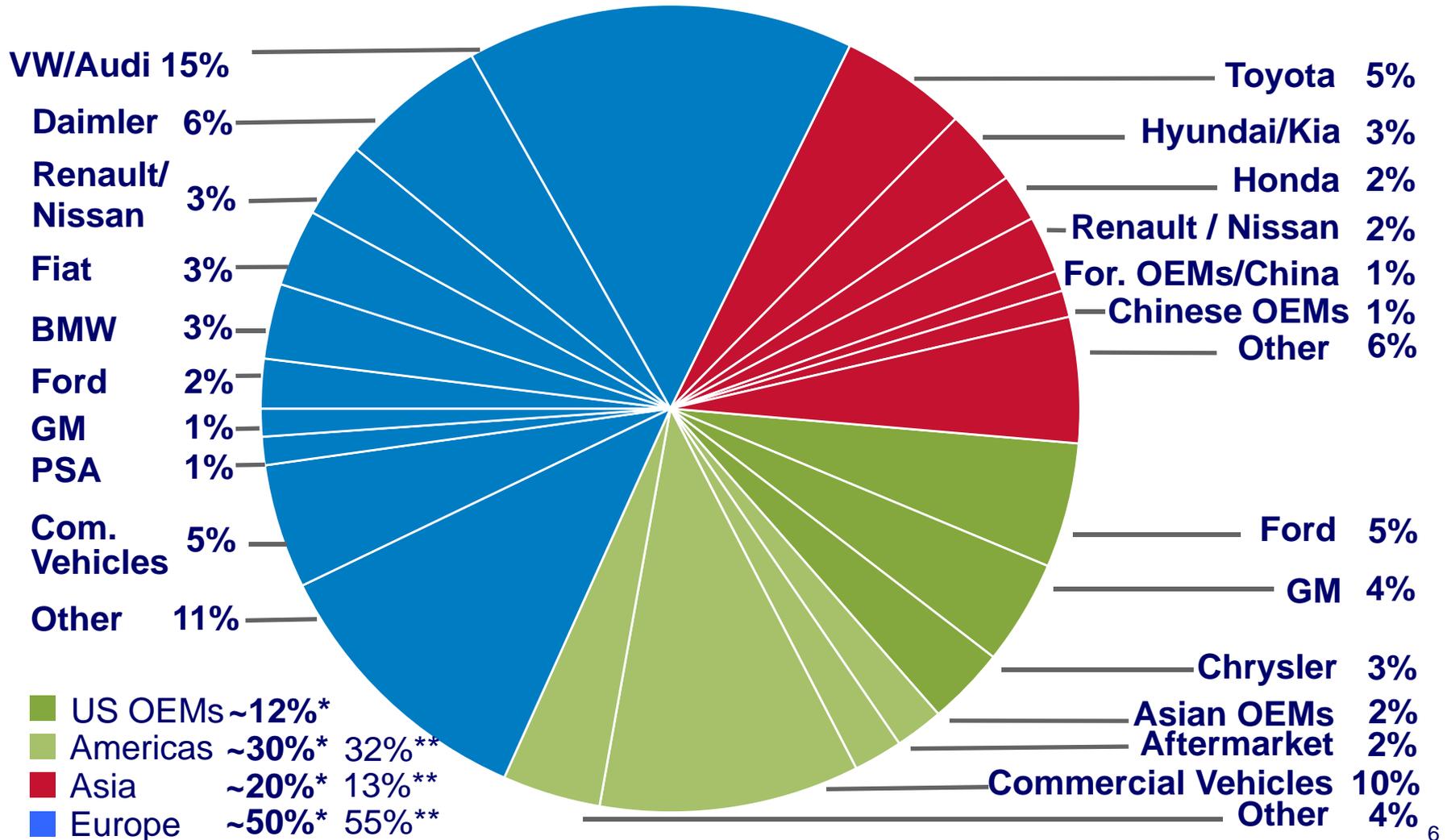
Diesel Cold Start Technology
Electronic & Sensor Technology
Gas Ignition Technology

TorgTransfer Systems

AWD Systems
4WD Transfer Cases
Synchronizer Rings
Electronic Control Units

Customer and Geographic Diversity

2009 Sales Outlook *



BorgWarner = Efficient Gasoline

- Examples - 2010 Ford Fusion, VW Golf, BMW Mini Cooper, Honda Fit
- Features BorgWarner



Transmission Modules, One Way Clutches, Friction plates



Turbochargers



Cam Torque Actuated VCT



Engine Timing Systems, HY-VO[®] Chain



Efficient Gasoline Examples

BorgWarner = Clean Diesel

- Example – VW Jetta TDI, Mercedes C-Class/ E-Class, BMW 1/3/5 Series, Mazda Atenza
- Features BorgWarner



VTG Turbochargers



One Way Clutches,
Friction Plates



Pressure Sensor
Glow Plugs



DualTronic™ Dual
Clutch & Control
Modules



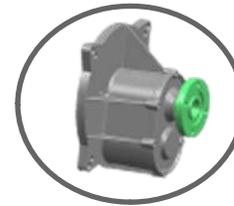
Clean Diesel Examples

BorgWarner = Commercial Vehicles

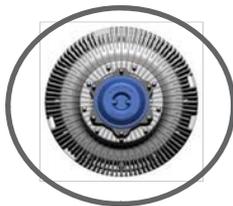
- Example – Medium/Heavy Duty Trucks, Construction/Agricultural Vehicles, and Buses
- Features BorgWarner



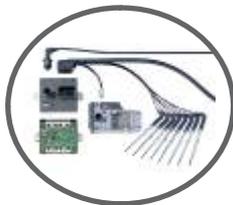
Turbochargers



eGearDrive™



Fan drives (Cool Logic® and Viscronic) and Coolant Pumps



Diesel Cold Start & Tire Pressure Monitoring Systems



Commercial Examples

BorgWarner = Hybrid & Electric Vehicles

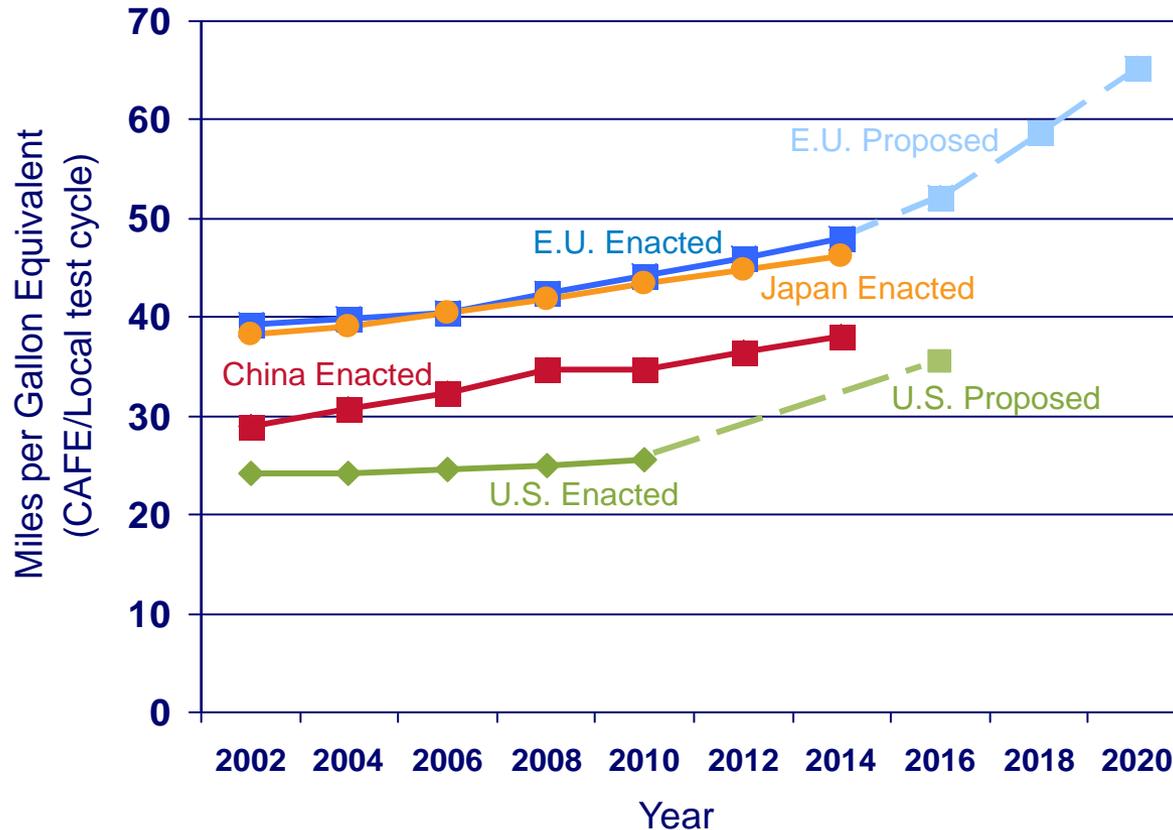
BorgWarner has broad production experience with current products in hybrid and electric vehicle applications

Hybrid and Electric Vehicle Applications (A few examples)	Current Product Coverage
 Smart ForTwo hybrid	Engine Valve Timing System
 BMW Mini	Cabin Heater (High Voltage)
 Toyota Prius	HY-VO® Chain
 Honda Insight and Civic	Engine Valve Timing Components
 Ford – Escape, Mariner, Tribute, Fusion, Milan	Engine Valve Timing System
 GM/Saturn – Vue, Aura, Malibu	Transmission Components & HY-VO® Chain
 GM – Escalade, Tahoe, Yukon	Transmission Components
 Tesla - Roadster	Tire Pressure Monitoring System & eGearDrive™
 Fisker Karma	Turbocharger

Fuel Efficiencies

Tightening Fuel Economy Standards

Actual and Projected Fuel Economy for Light Vehicles



15%-30%
more fuel
economy

Gas and Diesel
Turbochargers



5%-15%
more fuel
economy

Dual Clutch
Transmissions



5% fuel
economy
possible

Cam Phasers
-with CTA™
Technology



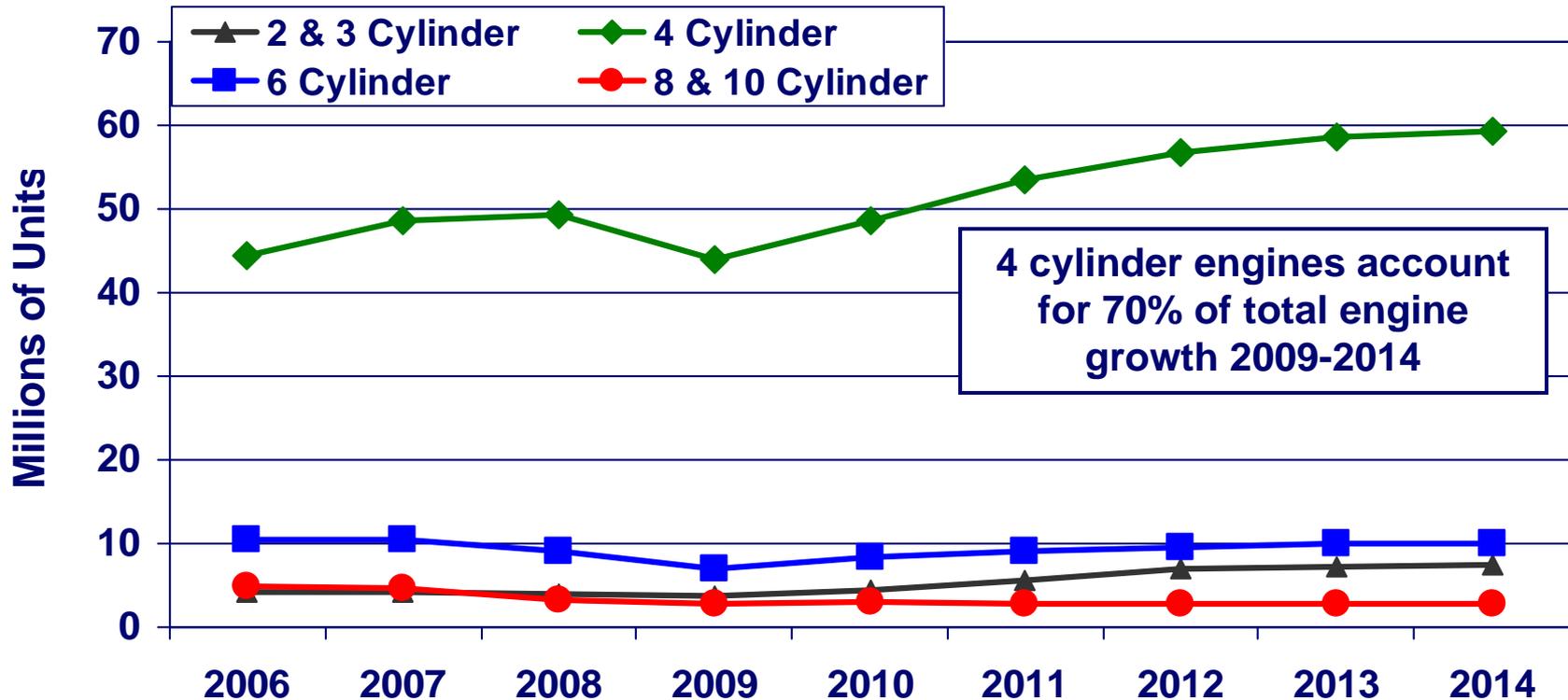
Source: International Council on Clean Transportation, January 2009

U.S. Environmental Protection Agency, "Notice of Upcoming Joint Rule Making To Establish Vehicle GHG Emissions and CAFE Standards", May 22, 2009

Fuel Economy percentages may vary depending on vehicle application, use and data sourced for comparison

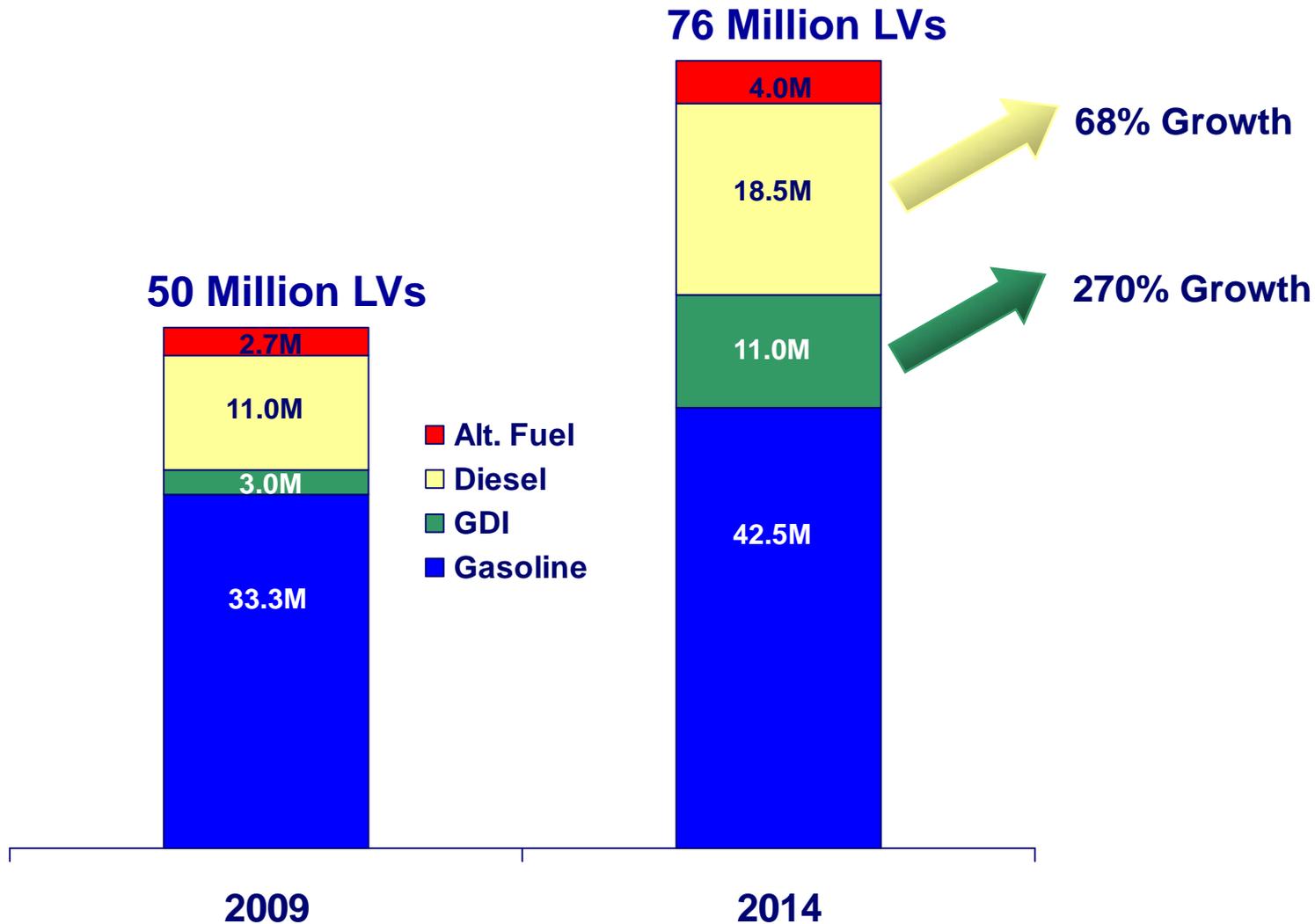
Global Engine Downsizing

Light Vehicle Engines Produced Worldwide



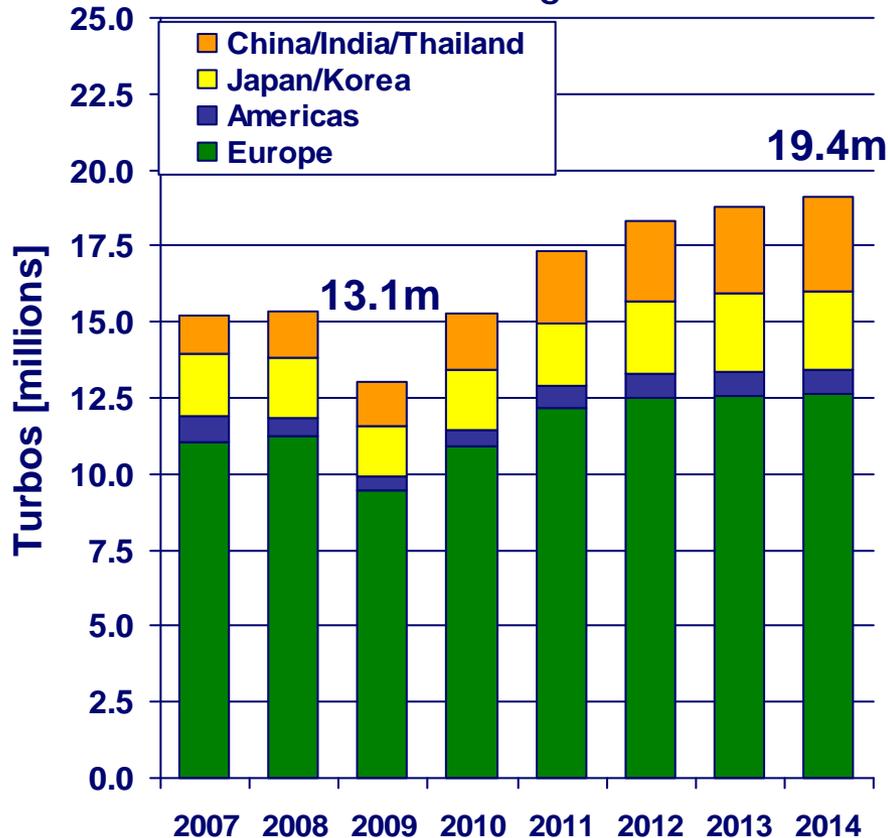
- 2 & 3 Cylinder: 7.4M units globally by 2014
- 4 Cylinder: strong positive trend, dominates market; 59.3M units by 2014
- 6 Cylinder: growth in units, slight loss of share; 10.1M units by 2014
- 8 & 10 Cylinder: downtrend; 2.7M units by 2014

Global Light Vehicle Engine Market

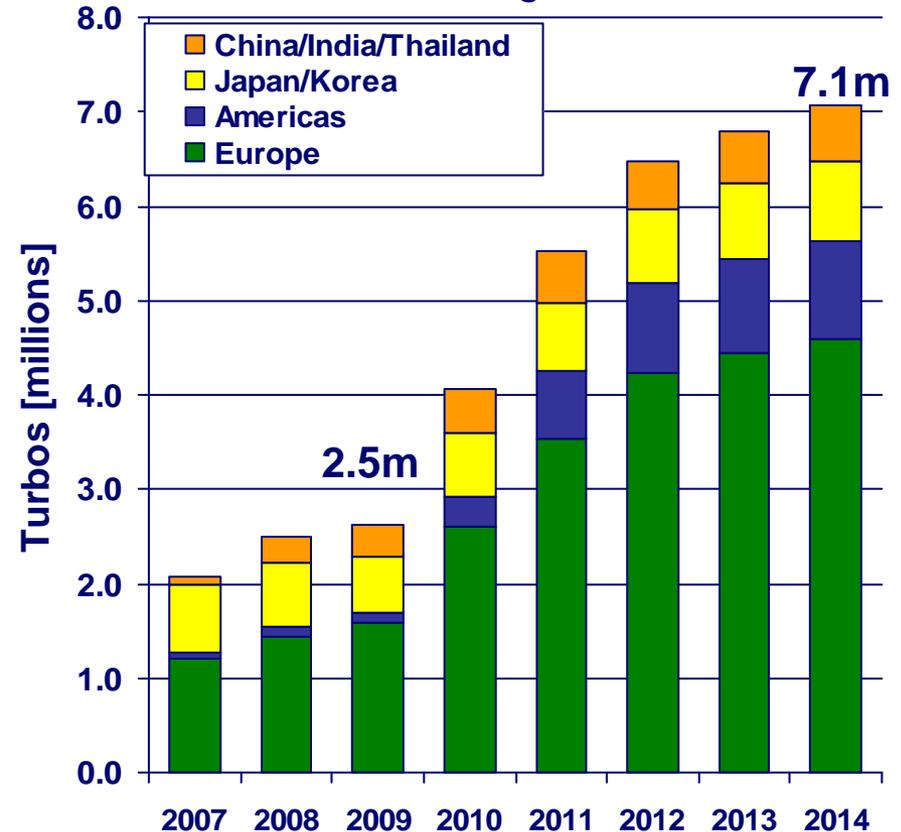


LV Turbocharger Growth by Market

Diesel Turbochargers
48% growth

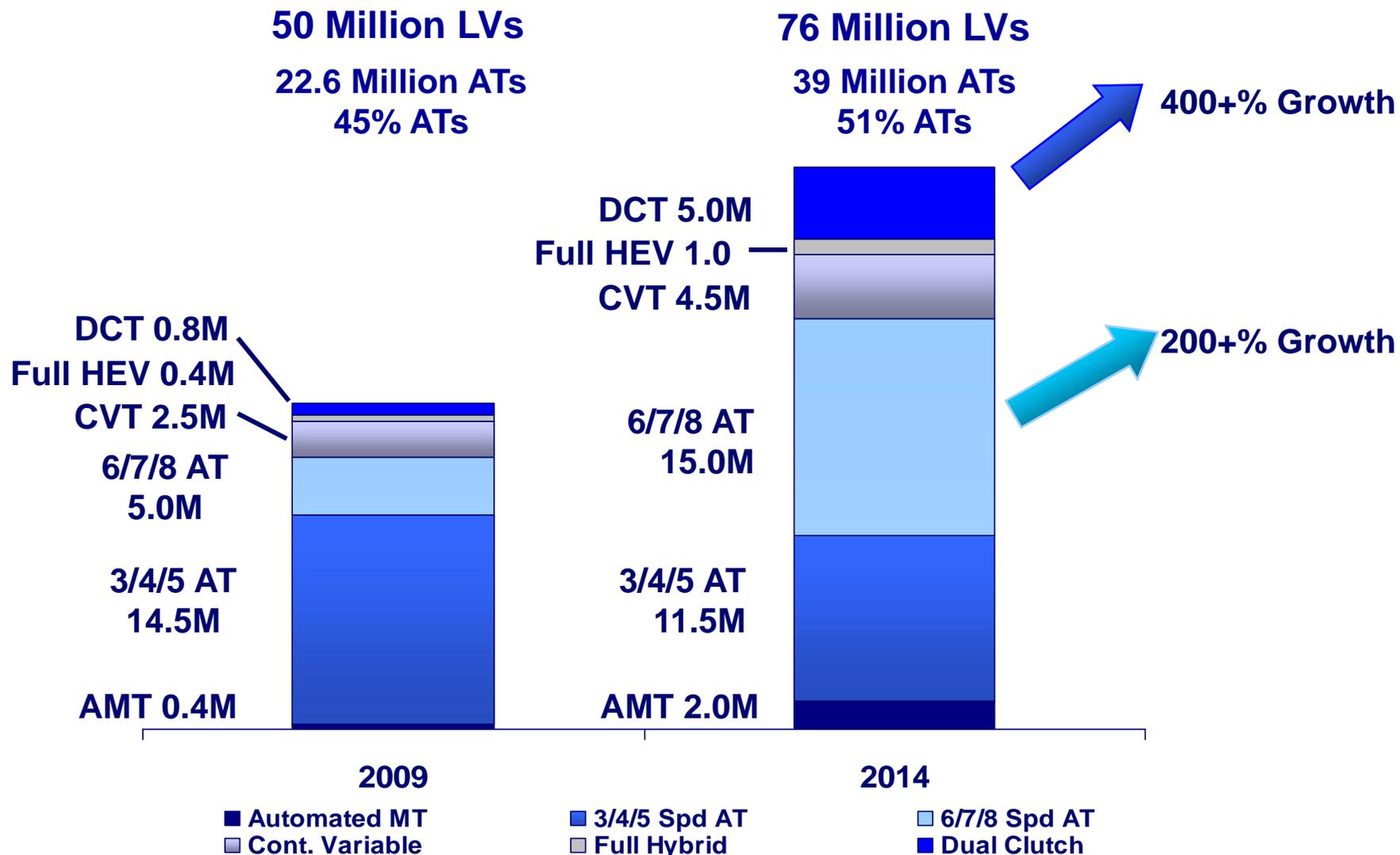


Gasoline Turbochargers
184% growth



- *Includes North American light truck applications
- *OE demand only
- *R2S is counted as 2 turbos

Automatic Transmissions Advance



Summary

- Proven Technologies Exist
- Investment will be Necessary
 - Timing?
- Technology Neutral Policies are Key
 - Need to use all technologies available

Thank You

*feel good
about driving*



better fuel economy
reduced emissions
great performance