Investor Day 2017

Patrick Nolan
Vice President, Investor Relations

August 7, 2017
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Investor Day Agenda

- 9:30  Progress Towards Combustion/Hybrid/Electric Goals – James Verrier, President and CEO
- 10:10  Product Leadership – Chris Thomas, Chief Technology Officer
- 10:25  Break - Static Displays Available
- 11:05  Financial Discipline and Outlook - Ron Hundzinski, Chief Financial Officer
- 11:25  Closing Remarks – James
- Q&A – James, Ron and Chris
Addressing Vehicle Mobility Trends

- autonomous driving
- shared cars and rideshare
- connected cars
- efficiency/CO₂ emissions

THERE WILL ALWAYS BE A NEED FOR A PROPULSION SYSTEM
Balanced Across Propulsion Systems

Estimated 2023 Average Content Per Vehicle
(Shared at Sept ‘16 Investor Day)

- **Combustion**: $215, 53%
- **Hybrid**: $225, 42%
- **Electric**: $285, 29%

Note: Participation Rate
IHS Light Vehicle Projections

2016 IHS UNITS*

- Electric
  - 0.5M
- Hybrid
  - 3M
- Combustion
  - 90M

2023 IHS UNITS*

- Electric
  - 3.4M
- Hybrid
  - 21M
- Combustion
  - 83M

-1.1% CAGR
2% CAGR
31% CAGR
34% CAGR

*Source market data: IHS Light Vehicle Forecast (May 2017*).
2020: Ongoing Evolution

<table>
<thead>
<tr>
<th>Year</th>
<th>Electric</th>
<th>Hybrid</th>
<th>Combustion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>0.5M</td>
<td>3M</td>
<td>90M</td>
</tr>
<tr>
<td>2020</td>
<td>2.2M</td>
<td>11M</td>
<td>89M</td>
</tr>
<tr>
<td>2023</td>
<td>3.4M</td>
<td>21M</td>
<td>83M</td>
</tr>
</tbody>
</table>

*Source market data: IHS Light Vehicle Forecast (May 2017*).
Combustion Propulsion

* Includes engines, transmissions and all-wheel drive systems with no electrification, includes stop/start. All prices are estimates, actual prices will vary.

Combustion Products:

- Timing system
- Variable cam timing
- Exhaust gas recirculation
- Clutch plates
- All-wheel drive systems
- Enhanced starters
- Fans & fan drives
- Pictured products and many more…

<table>
<thead>
<tr>
<th>Variable Cam Timing</th>
<th>Exhaust Gas Management</th>
<th>Boosting Technologies</th>
<th>Transmission Technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>$45</td>
<td>$100</td>
<td>$250</td>
<td>$350</td>
</tr>
</tbody>
</table>

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Growth and Participation in Combustion

- **aCPV (Average Content Per Vehicle)**
  - 2016 IHS UNITS (As of Sep 2016): 88M
  - aCPV $185, 44%

- **Combustion Vehicles with BW Content**
  - 2020 IHS UNITS (As of Aug 2017): 89M
  - aCPV $200, 50%

- **Combustion Vehicles with BW Content**
  - 2023 IHS UNITS (As of Sep 2016): 86M
  - aCPV $215, 53%
Combustion – Select Customer Awards

**Turbochargers:**
1.5L gas Asia (2)
2.0L gas EU (3)
2.0L gas Asia (1)

**Timing Drives & Variable Cam Timing:**
Americas (1)
EU (2)
Asia (5)

**Dual Clutch Modules:**
Asia (4)

**EGR Modules:**
EU (3)
Asia (2)
Hybrid Propulsion*

* Includes mild, full and plug-in hybrid. All prices are estimates, actual prices will vary.

Combustion Products
PLUS Hybrid Specific Products

- Exhaust heat recovery systems
- Electric drive motors
- Disconnect clutch and controls
- Pictured products and many more…

<table>
<thead>
<tr>
<th>Product</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>eBooster®</td>
<td>$200</td>
</tr>
<tr>
<td>iBAS Systems</td>
<td>$300</td>
</tr>
<tr>
<td>P2 Hybrid Module On/Off Axis</td>
<td>$900</td>
</tr>
<tr>
<td>Electric All-Wheel Drive</td>
<td>$1200</td>
</tr>
</tbody>
</table>

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Growth and Participation in Hybrid

- **aCPV (Average Content Per Vehicle)**
- **Hybrid Vehicles with BW Content**

**2016 IHS UNITS (As of Sep 2016)**
- aCPV $140
- 3M units
- 20% participation

**2020 IHS UNITS* (As of Aug 2017)**
- aCPV $240
- 11M units
- 36% participation

**2023 IHS UNITS (As of Sep 2016)**
- aCPV $225
- 18M units
- 42% participation

*As of Aug 2017*
Hybrid – Select Customer Awards

BAS for P0:
200V Asia
200V EU

Wet disconnect and controls:
Asia (2)

Exhaust Heat Recovery System:
N. America
Hybrid – Select Customer Awards

**eBooster®:**
48V EU (3)

**Chain Drive:**
Asia & EU
Electric Propulsion*

* Includes battery electric vehicles, range extenders and fuel cells. All prices are estimates, actual prices will vary.

Electric Vehicle Products:

- Electric all-wheel drive
- Liquid heater
- Auxiliary coolant pump
- Fuel Cell air supply
- Transmission Chain
- Pictured products and many more…

Friction Plates: $40
Cabin Air Heater: $200
eGearDrive®: $500
Electric Drive Motor: $700
Electric Drive Module: $1100
Growth and Participation in Electric

aCPV (Average Content Per Vehicle)  Electric Vehicles with BW Content

<table>
<thead>
<tr>
<th>Year</th>
<th>Electric Units</th>
<th>aCPV</th>
<th>Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>0.5M</td>
<td>$620</td>
<td>3%</td>
</tr>
<tr>
<td>2020</td>
<td>2.2M</td>
<td>$285</td>
<td>26%</td>
</tr>
<tr>
<td>2023</td>
<td>2.3M</td>
<td>$285</td>
<td>29%</td>
</tr>
</tbody>
</table>

aCPV (As of Sep 2016)  IHS UNITS (As of Aug 2017)  IHS UNITS (As of Sep 2016)
Electric - Select Customer Awards

- **eGearDrive® Transmission:**
  - Asia (5)
  - N. America

- **Electric Drive Motor:**
  - N. America

- **Electric Drive Module:**
  - Asia (4)
  - N. America
Electric - Select Customer Awards

Cabin Air Heater:
N. America Asia (2)

Friction Plates:
EU

Auxiliary Coolant Pump:
Asia
Commercial Vehicle Technology

- Low fuel consumption and a long service life remain priorities
- Highly efficient technologies offered across platforms
Excellent Balance by 2020

NEW
Estimated 2020 Average Content Per Vehicle

- **Combustion**: $200, 50%
- **Hybrid**: $240, 36%
- **Electric**: $285, 26%

Note: Participation Rate

Note: Excludes Sevcon
Staying Ahead of the Curve

- New 2020 outlook indicates BorgWarner is tracking ahead of our 2023 goals
- Product portfolio is well positioned to address current & future propulsion needs
- Continued significant wins across C-H-E
- Continued confidence in long-term growth targets of mid to high single digits
- Maintaining mid-teens incremental margin growth regardless of propulsion mix
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Prof. Christopher Thomas
Chief Technology Officer

August 7, 2017
Why We Are Winning

- New dynamics in customer engagements
- Product leadership across propulsion systems
All Markets Have Similar Challenges

- Propelled by both regulatory demands and consumer needs
- Never-ending drive to improve performance and efficiency

Note China 2020-2025 has been added by BW. Source: CATARC
EU 2025 at 86 g/km CO2. Source BW
EU 2030 at 75 g/km CO2. Source BW

*Note that Japan has already exceeded its 2020 statutory target, as of 2013.*
New Dynamics in Customer Relationships

- **Historical:**
  - BorgWarner Engineering worked with technology leading customers to develop and launch specific products

- **New Dynamic:**
  - Approach our customers as a balanced propulsion partner
    - Open dialogue concerning future of propulsion mix
    - Collaborate to implement propulsion systems that integrate with the rest of the vehicle
Long-Standing Relationships Paying Off

Based on 2016 Sales excluding Remy Aftermarket

Americas 33%
- Ford 8%
- FCA 6%
- GM 5%
- Asian OEMs 3%
- Commercial 4%
- Vehicles
- Other 7%

Europe 40%
- VW/Audi 11%
- Daimler 5%
- Renault 4%
- Ford 3%
- BMW 3%
- PSA 2%
- FCA 1%
- JLR 1%
- CV 3%
- Other 7%

Asia ex. China 14%
- Hyundai/Kia 8%
- Other Asia 6%
- ex. China

China 13%
- GM 2%
- Ford 1%
- VW/Audi 1%
- BYD 1%
- SAIC 1%
- Great Wall 1%
- Other China 6%

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Product Leadership Across Propulsion Systems

- Common themes:
  - Proprietary high-tech products / Intellectual Property
  - Commercialize in mass volume
  - Continuous innovation
  - Strong market position
Variable Turbine Geometry (VTG) Turbochargers

- Deep systems integration
- 250,000 rpm – 18x faster than Boeing 787 blades
- Temps >1000°C – lava rock starts liquifying at 700°C
eBooster® Electrically Driven Compressors

- Deep systems integration
- 0-75,000 rpm in 0.25 seconds
- Unique motor & power electronic applications
Hybrid / Electric Drive Motors

- Deep systems integration
- 18,000 rpm
- Same motor used for both vehicle propulsion and battery regeneration
- Unique motor & power electronics applications

Components:
- Lamination Stacks / Magnets
- Housing
- Bearing
- Rotor
- Stator / Windings
Wide Variety of Hybrid / EV Motor Topologies

- Awarded / Production
- Quoted

H/EV Traction Motor

Permanent Magnet
- Neodinium
- Assisted Synch Reluctance
  - Round Wire
  - Hairpin
  - S-Wind
  - Rectangular Wire

Non-Permanent Magnet
- Induction Copper
- Induction Aluminum

Round Wire
Hairpin
S-Wind
Rectangular Wire
S-Wind High Efficiency Stator

- More Power in Same Size Motor
- Better Copper Utilization = Less Cost
- Heat Transfer
- Reduces Space

Increased Copper area

Coil End Turn Height Reduction

Conventional

S-Series
Winning Combination

- Unique customer engagements
  - Helping customers determine future propulsion portfolio mix
  - True partner with OEMs; balanced across propulsion systems

- Product leadership
  - Providing elegant solutions to complex propulsion challenges
  - BorgWarner remains at the forefront of evolving industry C-H-E mix
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Ron Hundzinski
Executive Vice President & Chief Financial Officer

August 7, 2017
Excellent Balance Across Light Vehicles

- **2016 IHS UNITS**:
  - Electric: 0.6%
  - Hybrid: 3.0%
  - Combustion: 96.4%

- **2016 BWA REVENUE (USD)**:
  - Electric: 0.1%
  - Hybrid: 1.1%
  - Combustion: 98.8%

- **2020 IHS UNITS**:
  - Electric: 2.2%
  - Hybrid: 10.8%
  - Combustion: 87.0%

- **2020 BWA REVENUE (USD)**:
  - Electric: 1.7%
  - Hybrid: 9.6%
  - Combustion: 88.7%

*Source market data: IHS Light Vehicle Forecast (May 2017)
Dual Clutch & Control Module Market Opportunity

- Dual Clutch & Control Modules
  - 2023 Combustion market is 83M vehicles
  - Dual Clutch penetration (of LV Market) 12%
  - Estimated BorgWarner market share (of DCT market) 38%
  - Average Content per Vehicle $300

~$1.1B Annual Sales Opportunity, with additional opportunities in hybrids
Hybrid Boosting Market Opportunity

- Turbocharger Opportunity for Hybrids
  - 2023 Hybrid market is 21M vehicles
  - Turbocharger penetration of 45%
  - Estimated BorgWarner market share 30% of Turbocharger market
  - Average Content per Vehicle $250

~$700M Annual Sales Opportunity, additional opportunities in Combustion
P2 Hybrid Market Opportunity

- **P2 Hybrid Architectures**
  - 2023 Hybrid market is 21M vehicles
  - P2 Hybrid architecture penetration of 13%
  - Estimated BorgWarner Market participation is 55% of all P2 applications

- **Average Content per Vehicle:** $230
  - Friction Products: $35
  - Clutch Module: $140
  - Transmission Controls: $310
  - Electric Motors: $400
  - Entire P2 Modules (all of the above): $900

~$350M Annual Sales Opportunity
Electric Drive Market Opportunity

- Electric Drive Motors & Modules
  - 2023 Electric market is 3.5M vehicles
  - Electric Drive penetration of 100%
  - Approximately 40%-50% outsourced
  - Estimated BorgWarner Market Share 15%-20% of the outsourced Electric Drive market
  - Average Content per Vehicle $1,000

~$210M-$350M Annual Sales Opportunity
$2 Billion Market Opportunity

- Significant opportunities in other C-H-E products for additional revenue growth
Accelerating Revenue Diversity by 2020

*all values in billions

- 2016: $7.3
- 2020: $11.5

- CV & AM: $8.8
  * 5% CAGR

- Electric: $1.4
  * 88% CAGR

- Hybrid: <0.1
  * 102% CAGR

- Combustion: 0.1
  * 7% CAGR

- Total: $1.6
  * 3% CAGR
Projected Operating Margin Growth by 2020

- **2016**: 12.6%
- **2020**: Low 13% Range

*Mid teens incremental margin*

*2016 Margin Proforma for Remy LV Aftermarket Sale*
Rigorous Focus on ROIC

- Ingrained in the BorgWarner culture since the 1990s
- Each business decision must stand on its own merits
- >$2M investments must be approved by the Investment Committee
- >$15M investments must be approved by the Board of Directors
- MINIMUM 15% ROIC after-tax requirement across C-H-E
Capital Deployment Discipline

ROI%

20%+
19%
18%
17%
16%
15%

2017 2018 2019

SOP Year
Balanced Approach to Capital Allocation

- Maintain technology leadership
  - 4% of revenue for R&D spending
- Capital Spending 5.5%-6.5% of sales
  - 80% for growth programs
- Dividend growth in line with cash flow
- Maintain adequate liquidity for M&A
- Offset dilution of stock based compensation via share repurchases
Well Positioned for Ongoing Financial Strength

- Expect 7% revenue CAGR through 2020
- Evolution of revenue matches industry trends
- Growth products across platforms represent significant revenue opportunities
- Margins improve through end of decade
- ROIC hurdle rates steady across portfolio
- Balanced capital allocation
Combustion - Select Customer Awards

- Dual Clutch Module Asia (2019)
- Transfer Case & Disconnect EU (2020)
- Plug top Ignition coils EU (2020)
- Plug top Ignition coils Asia (2) (2019)
- Gas 2.0L turbocharger EU (2020, 2021, 2022), Asia (2020)
- Gas 1.5L turbocharger Asia (2018, 2019)
Hybrid - Select Customer Awards

- Chain drive for P3 Europe (2018)
- Wet disconnect and controls for P2 Asia (2018, 2019)
- 200V BAS for P0 EU & Asia (2019)
- P2 On-Axis Module EU (2020)
- Exhaust heat recovery system N. America (2019)
- 48V eBooster® EU (2019, 2020)
Electric - Select Customer Awards

- Electric Drive Module N. America (2019)
- Cabin Air Heater N. America (2017)
- Cabin Air Heater China (2017, 2018)
- Electric Drive Motor N. America (2018)
- CV Electric Drive Motor EU (2019)
- Transmission friction plates EU (2019)
Our Strategy is Working

- Continued significant wins across C-H-E
- New 2020 outlook indicates BorgWarner is tracking ahead of our 2023 goals
- Expect 7% revenue CAGR through 2020
- Margins set to improve through the end of the decade
- Ongoing confidence in long-term growth targets of mid to high single digits
- Approach our customers as a balanced propulsion partner
- BorgWarner remains at the forefront of evolving industry C-H-E-mix
Thank you!