Mercedes-Benz “Intelligent Drive”:
ADAS Technologies & Rollout Strategy in US market

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Agenda

• Mercedes-Benz History
  - Invention of the Automobile
  - Highlights of automotive innovations

• Safety
  - Safety history and leadership
  - Highlights of passive and active safety innovations

• Marketing “Intelligent Drive” — Then and Now
  - Pricing
  - Promotion
Mercedes-Benz: Tradition in Safety Leadership

Comprehensive safety measures are intrinsic to the Mercedes-Benz philosophy.

**Active Safety**
- Safe Driving: Avoid danger, timely warning and assistance
- Dangerous Situation: Anticipatory occupant protection with PRE-SAFE®

**Passive Safety**
- During an accident: Protection as required
- After an accident: Rapid assistance, minimize damage

Key Safety Features:
- Anti-Lock Brakes
- Airbag
- Belt Tensioner
- 4MATIC
- Sandwich Concept
- ESP®
- Sidebag
- Auto. Rollover Bar
- Adaptive Front Airbag
- DISTRONIC
- Windowbag
- PRE-SAFE®
- Active Light Function
- Brake Assist PLUS
- DISTRONIC PLUS
- Blind Spot Assist
- PRE-SAFE® Brake
- Intelligent Light Syst.
- Lane Keeping Ast.
- Brake Assist PLUS
- Adaptive Brake Lights
Mercedes-Benz “Intelligent Drive” – features:

**“Intelligent technologies that support the driver in safe and convenient driving”**

<table>
<thead>
<tr>
<th>Package</th>
<th>Features</th>
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<tr>
<td>Lane Tracking Package</td>
<td>• ATTENTION ASSIST</td>
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<td>• Blind Spot Assist</td>
<td>• Night View Assist Plus S</td>
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<td>• Lane Keeping Assist</td>
<td>• COLLISION PREVENTION ASSIST (PLUS)</td>
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<td><strong>Driver Assistance Package</strong></td>
<td>• Anti-lock Braking System ABS</td>
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<td>• DISTRONIC PLUS® w/Steering Assist</td>
<td>• Anti-Slip Regulation ASR</td>
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<td>• Active Blind Spot Assist</td>
<td>• Torque Vectoring Brake</td>
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<td>• Active Lane Keeping Assist (oncoming traffic)</td>
<td>• Cruise Control</td>
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<td>• PRE-SAFE PLUS®</td>
<td>• MAGIC BODY CONTROL S</td>
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<td>• PRE-SAFE® Package Rear</td>
<td>• Lighting Package</td>
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<tr>
<td>• PRE-SAFE® Brake (with pedestrian recognition)</td>
<td>• Adaptive Highbeam Assist</td>
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<td>• BAS PLUS with cross-traffic assist</td>
<td>• Full-LED Headlamps w/Active Curve Illumination &amp; Corner Illuminating Lamps</td>
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<td><strong>Bold</strong> New for MY14</td>
<td><strong>First-to-market for MY14</strong></td>
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<td><strong>MY 2014 S-Class</strong></td>
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More Sensors, More Protection

Highly sophisticated sensors and the necessary networked algorithms provide the foundation for innovative new functions using the same stereo camera and multistage radar sensors.
DISTRONIC PLUS® with Steering Assist

This radar-based function is now enhanced by the addition of Steering Assist, which helps drivers to stay centered in their lane by generating the appropriate steering torque when travelling on a straight road and even in gentle bends.
BAS PLUS® with Cross-Traffic Assist

Brake Assist BAS PLUS is capable of more than just helping the driver to avoid collisions with vehicles ahead or lessen their consequences in a purely longitudinal direction: the new Cross-Traffic Assist function can also come to the driver’s aid when there is a risk of a collision with cross traffic at junctions.
The BAS PLUS and PRE-SAFE® Brake features have been augmented by the incorporation of a pedestrian detection function. Autonomous braking in response to vehicles ahead has also been markedly improved. Data from the stereo camera and the radar sensors are combined to enable the detection of pedestrians in the area in front of the vehicle. When a danger is identified, the system provides the driver with a visual and acoustic warning. When he responds and brakes, BAS PLUS increases the braking effect as appropriate to the given situation, where necessary to the extent of full brake application. If the driver fails to respond, PRE-SAFE® Brake carries out autonomous braking of the vehicle. The PRE-SAFE® Brake with pedestrian detection is active at speeds of up to 72 km/h and is able to prevent collisions with pedestrians from a speed of over 50 km/h. The system is also able to prevent a rear-end collision with stationary vehicles from a speed of over 50 km/h by means of autonomous braking. As such, it already qualifies for maximum points regarding compliance with the stringent EuroNCAP requirements on autonomous emergency braking in urban traffic which are to apply from 2014.
PRE-SAFE® PLUS: Rear-end Collision Protection

Using a radar sensor in the rear bumper to monitor the traffic behind the vehicle, PRE-SAFE PLUS provides occupant protection for rear passengers by engaging measures and increasing the brake pressure in order to keep the vehicle firmly braked during a possible rear-end collision.
Active Lane Keeping Assist recognizes critical situations such as overtaking vehicles, vehicles to be overtaken and parallel traffic, and it can also respond effectively to oncoming traffic. If the system detects the vehicle crossing the lane markings when the adjacent lane is not clear, not only does it cause the steering wheel to vibrate in pulses as a haptic warning for the driver, it guides the vehicle back into lane by single-sided braking via the ESP®.
Enhanced COLLISION PREVENTION ASSIST (Multi-Mode Radar)

Like ML/GL, but optimized system operates at slower speeds and has ECO Start/Stop enabler

• Static distance & dynamic approach warning, from 4.5 mph for moving/stopping/standing object

• Visual warning when the distance from a vehicle ahead is below the selected safe limit

• Visual and acoustic warning when in danger of collision with vehicle ahead

• Adaptive brake boosting as appropriate to the given situation when the driver fails to brake hard enough

• Can help to prevent rear-end collisions
PRE-SAFE
Predictive occupant-protection system

- Longitudinal adjustment & backrest/cushion angle of front passenger seat
- Adjustment of seat backrests & cushions
- Inflating of supporting bolsters in seat cushions & backrest of both front seats
- Pre-tensioning of driver and front passenger seatbelts
- Closing of sunroof & side windows
Enhanced ATTENTION ASSIST®

• Display of current ATTENTION ASSIST levels (5), display of system state (active vs. passive due to speed), journey time since last pause
• Additional mode of “sensitive” for tired drivers
• Interaction with navigation system including additional warning and advice of service areas
Promotion of ADAS

• Packaging and pricing of features

• Dealer Communication & Tools: Dealer Bulletins, Linesets, iPad apps, visualizers

• Collateral, brochure, MBUSA.com, Digital/Social

• Training initiatives: Retail & Technical

• Press

• TV Commercials
History and Development of DISTRONIC: 
*Price reduction, intelligent packaging and availability cross-carline*

**MY 2000**

- Introduce DISTRONIC
  - Adaptive Cruise Control
  - In package for **+$3,700**
  - Only available on S/CL

**MY 2006 - Current**

- DISTRONIC PLUS
  - Autonomous Braking Intervention
  - In “Driver Assistance Package” with Blind Spot Assist/Lane Keeping Assist **$2,950**
  - Available Cross-Carline on almost every model

**MY 2014 - Future**

- Enhancements to Driver Asst. Package
  - Steering Assist
  - BAS with Cross-Traffic Assist
  - PRE-SAFE Brake with Pedestrian Detection
  - PRE-SAFE PLUS – protection during rear collisions

  - In “Driver Assistance Package” with Blind Spot Assist/Lane Keeping Assist **+$2,800**
    - Only available on S/E
“Magical Software,” 2012 – Driven2Distraction
Vic Gundotra, Senior VP at Google  (Click Image to Play Video)
Commercial – 2013, E-Class Redesign, “Clown”
(Click Image to Play Video)
Commercial – 2013, E-Class Redesign, “Hard to Imagine”  
(Click Image to Play Video)
2014 S-Class Intelligent Drive  (Click Image to Play Video)
2014 S-Class World Premier  (Click Image to Play Video)
Thank you!
Questions/Comments?