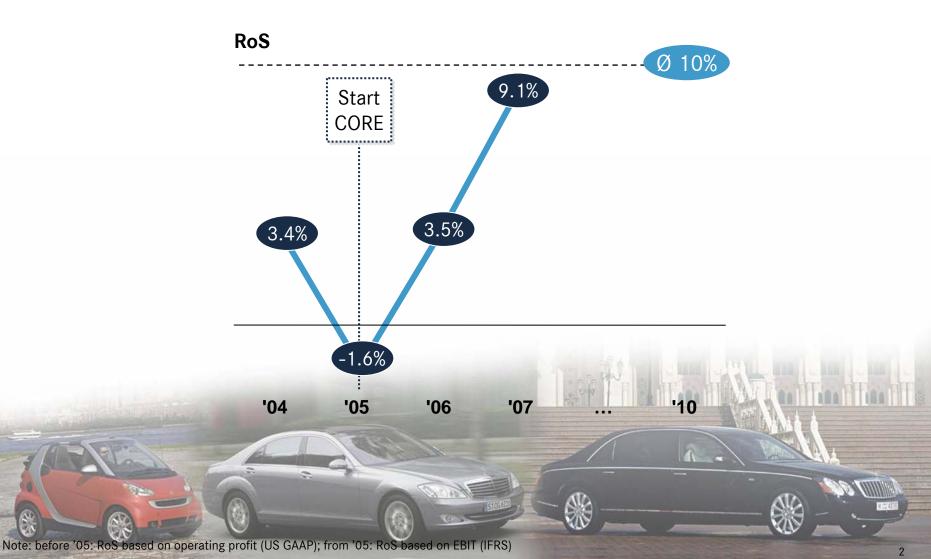
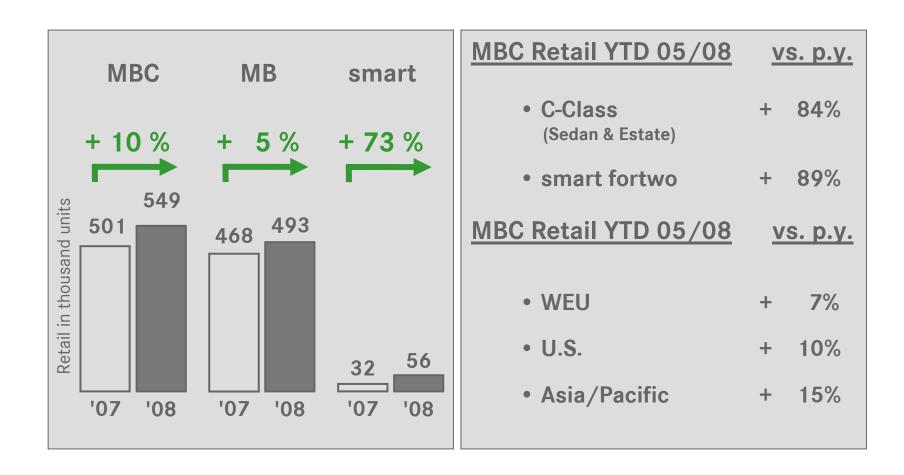
# Investor & Analyst Technology Day Mercedes-Benz Cars on the "Road to the Future" Dr. Dieter Zetsche



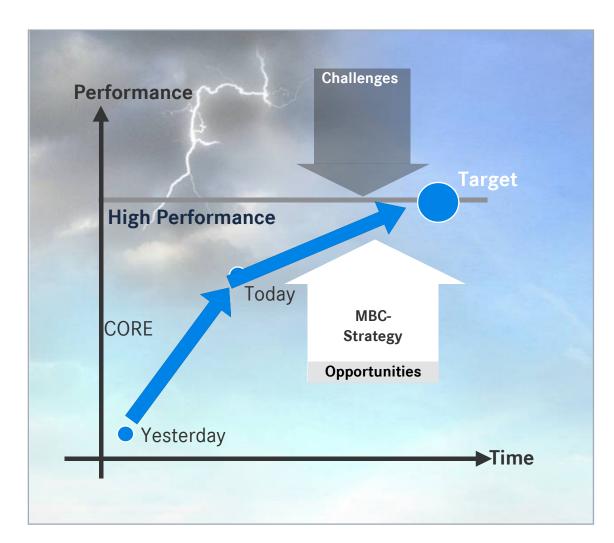
## **Target for Mercedes-Benz Cars** Achieve average RoS of 10%



## Sales Increase in the first 5 months 2008 Above strong 2007 sales figures



# After successful 2007, MBC addresses future challenges to strategic and financial targets



# **Challenges and Opportunities**

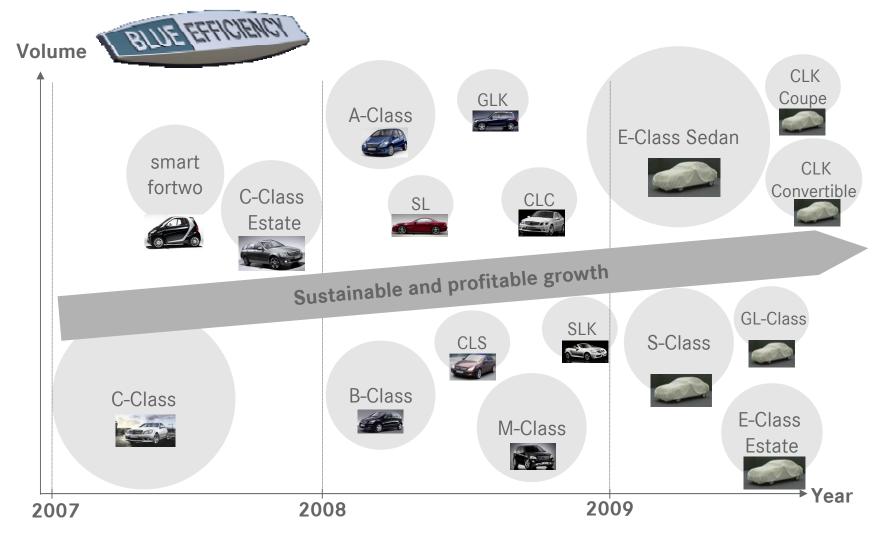
## Challenges

- US economic situation
- Unfavorable exchange rates
- Increase in raw material and energy prices
- Market development / competition
- Measures to comply with emission regulations / CO<sub>2</sub>

## **Opportunities**

- Successful introduction of new products
- Growth in traditional and emerging markets
- Business Innovation and growth along the value chain up- and downstream
- Excellence Programs will further increase efficiency and productivity
- Ongoing quality initiatives will further improve customer satisfaction and warranty costs

# **MBC products set for profitable growth in the future** 20 Fuel Efficiency models in 2008 with up to 12% fuel efficiency



## **Outstanding brand for outstanding individuals**



## **Daimler intellectual property portfolio** IP-protection safeguards long-term competitiveness





1.500 new patents annually, portfolio 21.000

### Brand



800 new Trademark applications annually, portfolio: 36.000

### Design



600 design patent applications per year, portfolio: 5.000

### Mercedes-Benz Cars

## Focus on three technology fields

Integrated safety approach



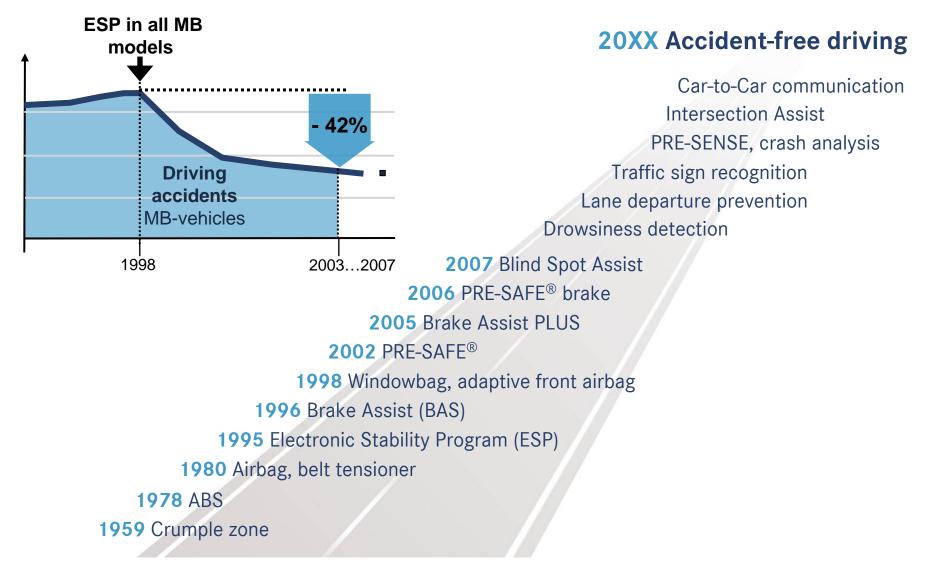


### Sustainable mobility

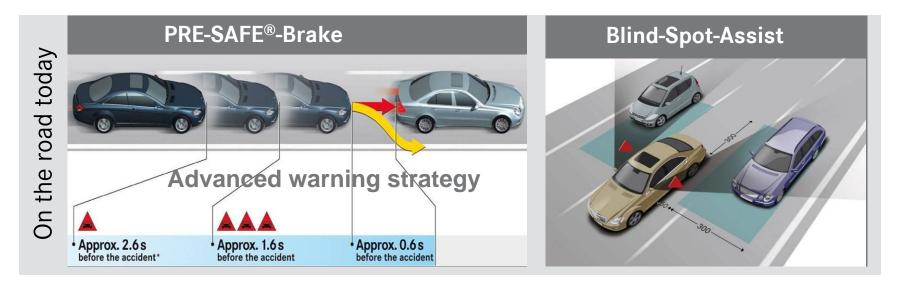


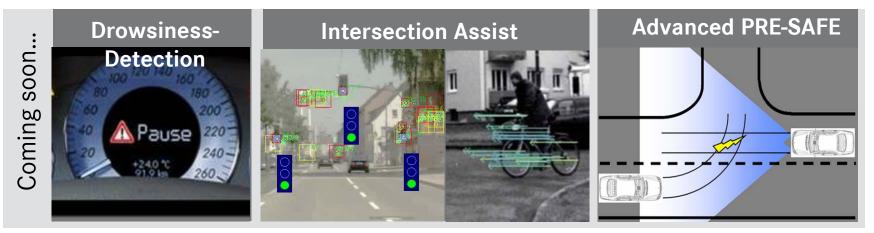


## **Integrated safety approach** Mercedes-Benz roadmap for accident-free driving

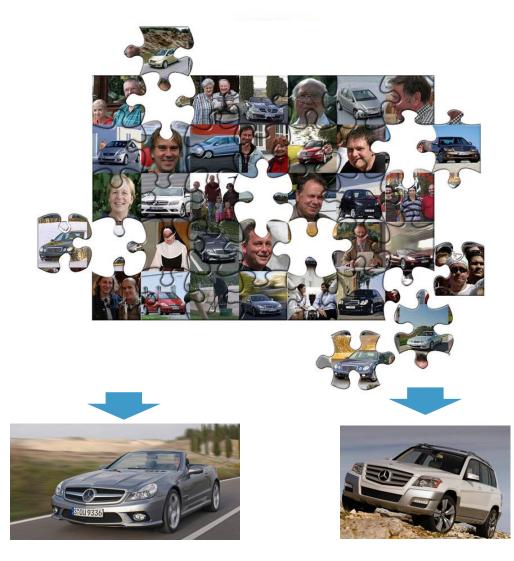


## **Integrated safety approach** Safety Innovations will remain a top priority





## **Individualized vehicles** Largest premium product portfolio



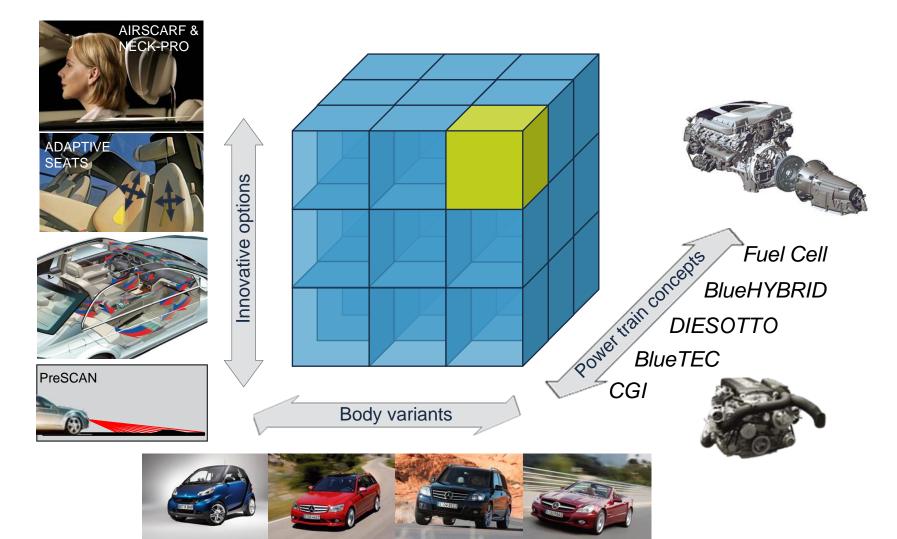
### For different:

- Mobility needs
- Application areas
- Equipment- and comfort needs



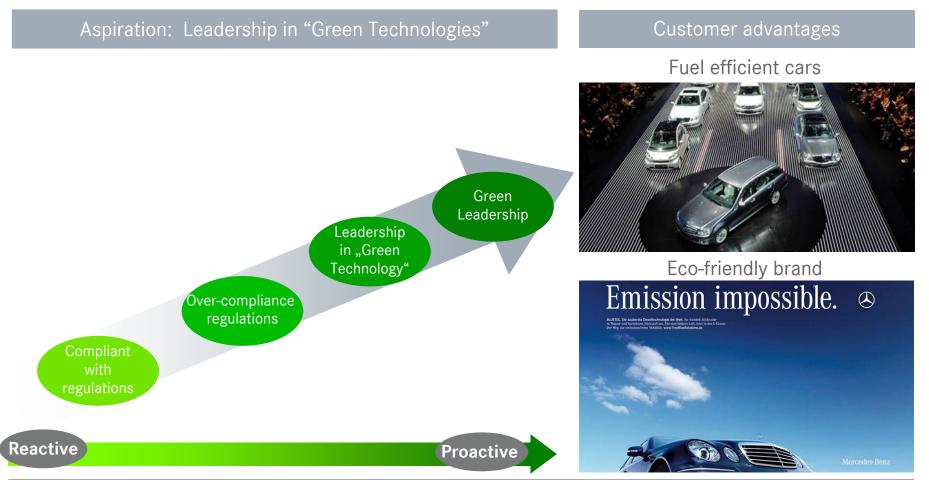
## **Individualized vehicles**

Maximum customer's choice as competitive advantage



# **Sustainable Mobility**

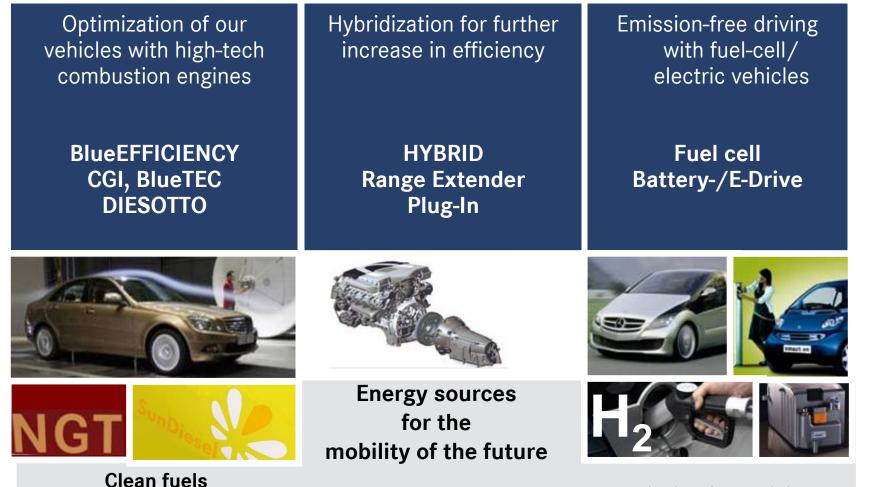
Significant improvements in environmental friendliness are decisive element of our claim to be No. 1



In comparison to small car manufacturers our product portfolio allows no absolute "Green Leadership"

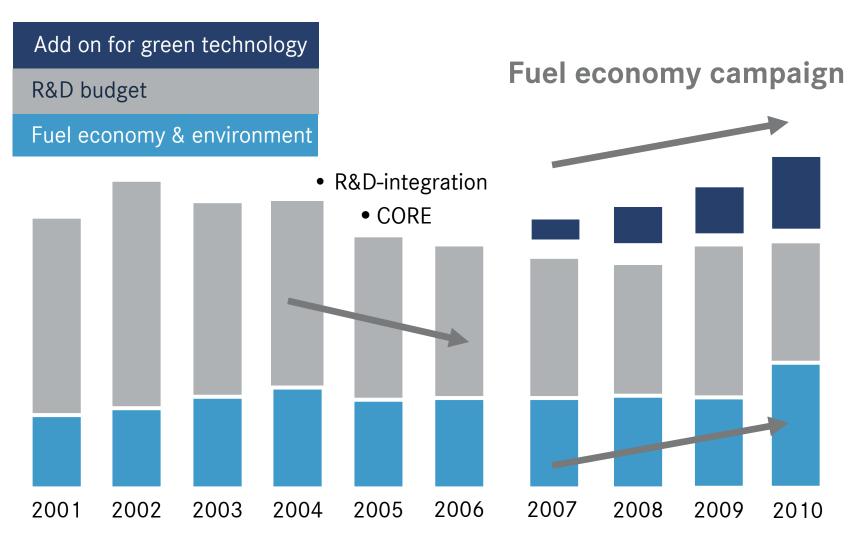
## Sustainable Mobility Mercedes-Benz Roadmap

for combustion engines

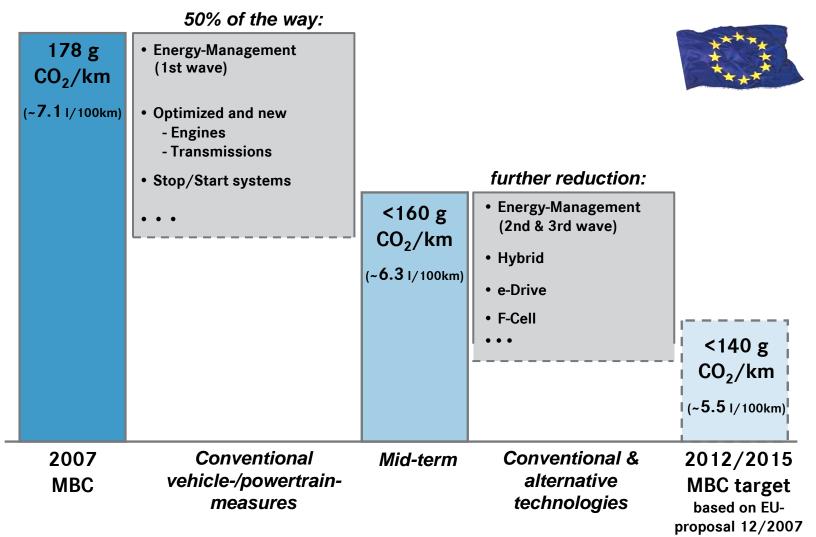


**Emission-free driving** 

## Sustainable Mobility Research & Development budget

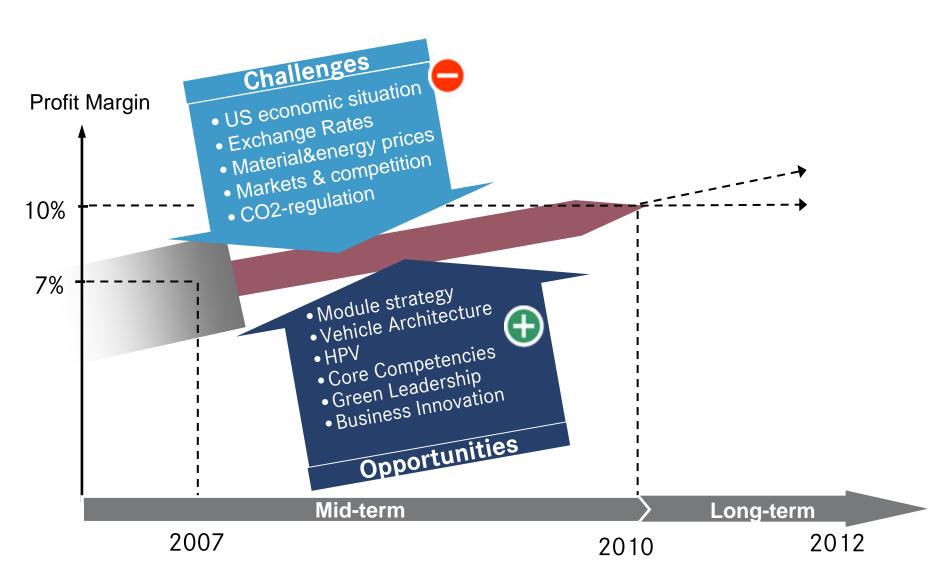


## **Sustainable Mobility** Possible Development of MBC EU Fleet Average



[FE-values "I/100km" based on expected Diesel/Gasoline mixture ]

## **Challenges & Opportunities**



## **Road to the Future:**

Comprehensive approach to master sustainable mobility

C 300 BlueTEC HYBRID S 400 BlueTEC HYBRID 2011 **B-Class F-Cell E 300 BlueTEC HYBRID** 2010 C 250 BlueTEC **ML 450 BlueHYBRID** 2009 S 400 BlueHYBRID C 200 CDI BlueEFFICIENCY C 180 Komp. BlueEFFICIENCY 2008 R, ML, GL 320 BlueTEC **B 150 BlueEFFICIENCY B 170 NGT BlueEFFICIENCY** A 160 CDI BlueEFFICIENCY 2007 A 150 BlueEFFICIENCY smart ed E300 BlueTEC **E350 CGI BlueEFFICIENCY** smart mhd

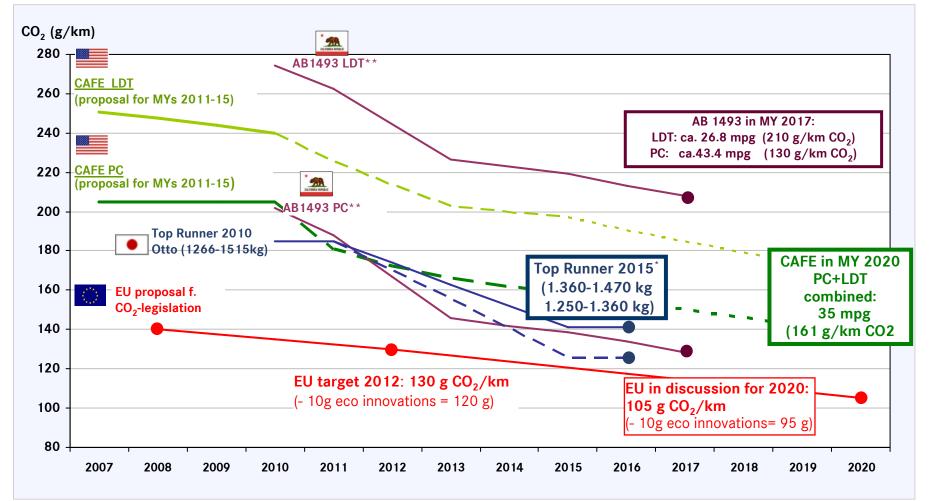
# Fuel Consumption & Emissions: Technological Challenge & Chance



Prof. Dr. Herbert Kohler Vice President Vehicle & Powertrain Group Research & Advanced Engineering Chief Environmental Officer

- 1. Regulations and Policies
- 2. Achievements
- 3. Technology Portfolio for a Sustainable Mobility

# **Tightening CO2 Regulation for Passenger Cars and Light Duty Vehicles in the Triade**



PC = passenger cars, LDT = light duty trucks. Years mean model year for US purpose.

\* value for better comparison transferred to 10.15-mode-test cycle (in fact JC08-test cycle)

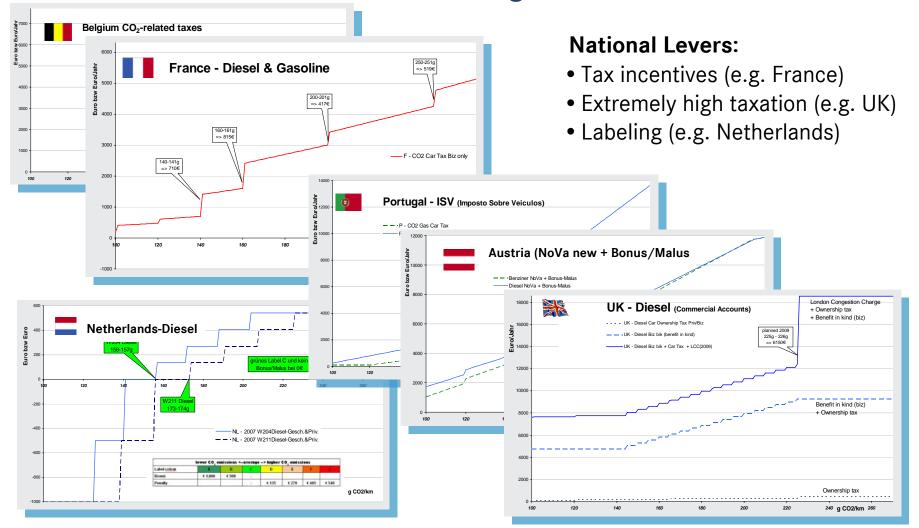
\*\* assumption: Adjustment of use of AB1493 by one year due to waiver refusal by EPA

### **Regulations and Policies**

## DAIMLER

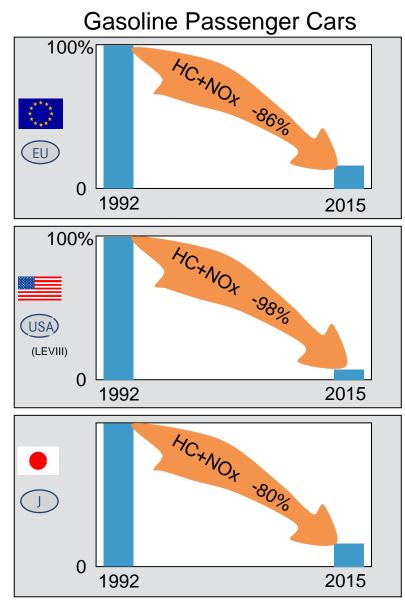
# **Diverse Individual National Regulations:**

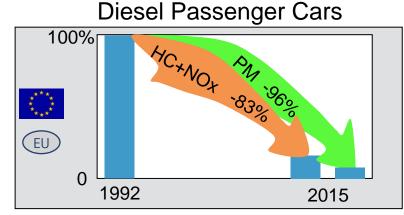
Difficult to manage by OEMs. Therefore DAI pursues and supports the harmonization of standards and regulations!

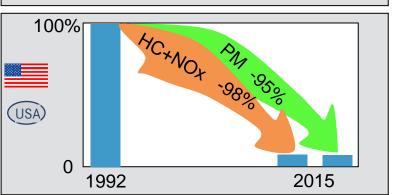


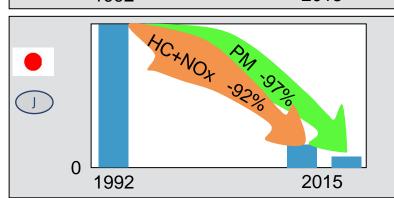
### **Regulations and Policies**

## **Development of Emission Limits in the Triad**





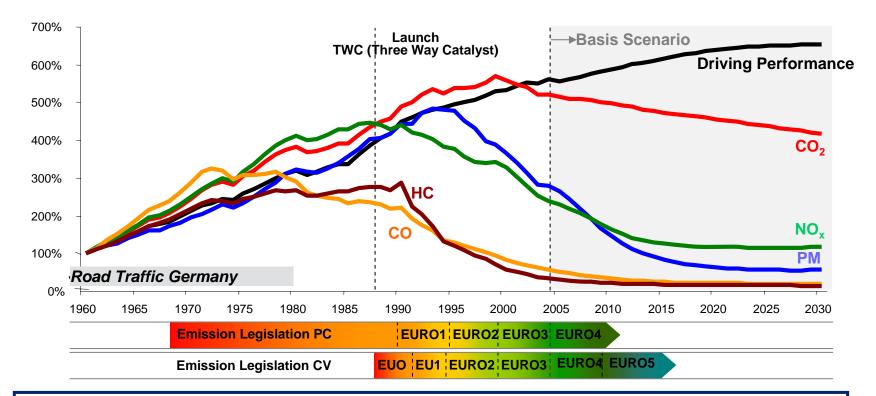




- 1. Regulations and Policies
- 2. Achievements
- 3. Technology Portfolio for a Sustainable Mobility

Achievements

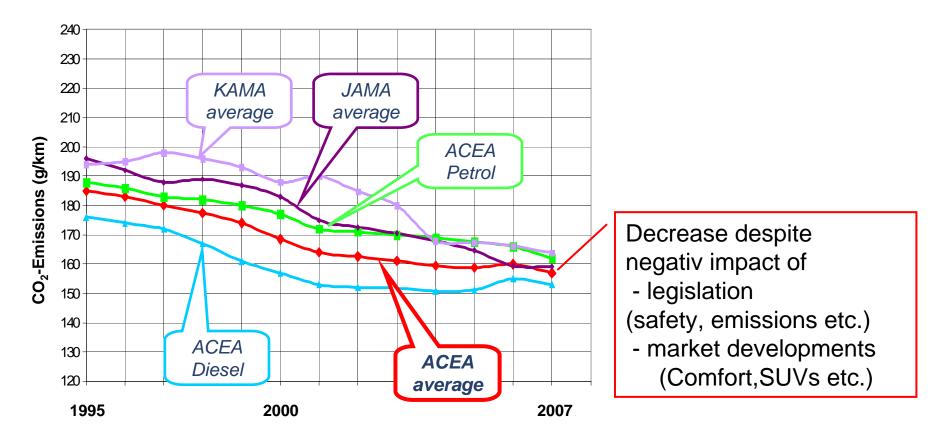
## **Trend of Driving Performance and Emissions**



Through further technical improvements significant reduction on pollutants has been achieved whilst driving performance increased. Also a turnaround on CO<sub>2</sub> emission has been achieved. (Source: TREMOD)

Achievements

# ACEA Has Made Significant Progress in Reducing CO2-Emissions!

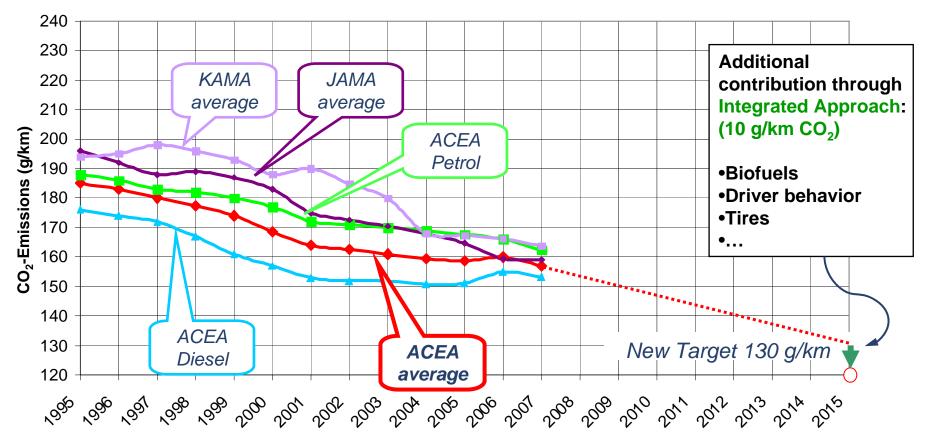


**ACEA** average in Europe **decreased by 15%** since 1995

**ACEA** average is **lower than** that of **Japanese or Korean** cars sold in Europe

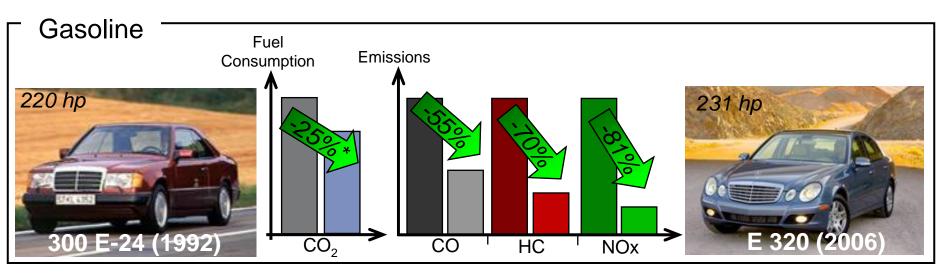
Achievements

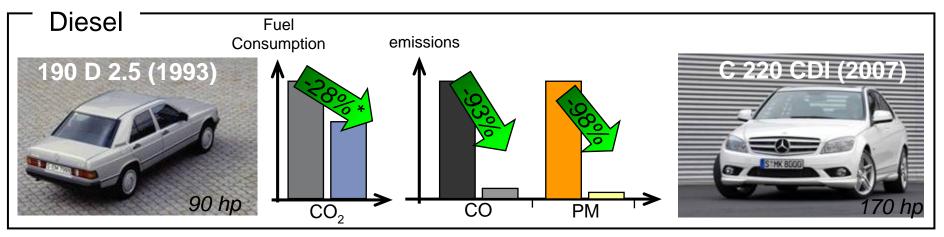
## Further Goals Are Being Discussed -"Challenge & Chance" for the Automotive Industry



ACEA average in Europe decreased by 15% since 1995
 ACEA average is lower than that of Japanese or Korean cars sold in Europe

## Mercedes-Benz: Compared to 1990, MB Portfolio has Reduced CO2–Emissions by 30%!





Achievements

# Today 11 Models between 4,9 (115g/km) and 6,5 I/100 km (150g/km)

Sales volume EU: 20% around 51/100km, 38% under 6,51/100km



## CO<sub>2</sub> –World Champion and most-sold 3-liter car

- 1. Regulations and Policies
- 2. Achievements
- 3. Technology Portfolio for a Sustainable Mobility

## **Origins of CO2 in a Passenger Vehicle**

## 46% Engine

29% physical efficiency 10% Weight (not optimizable) 17% friction / combustion process etc. (optimizable) 8% other: Climate 11% air Control, Electrics, resistance Steering, 13% transmission 12% roll resistance

> \*) data applies for mid class segment (3-Litre gasoline engine | RWD | NEFZ)

## **Daimler's Technology Portfolio for a Sustainable Mobility**

**Optimizing our** vehicles with modern conventional powertrains



**BlueEFFICIENCY** 



Clean fuels for combustion engines

CGI

BlueTec DIESOTTO

Hybridization for further increase in efficiency







**HYBRID** Range Extender Plug-In **Emission free driving** with fuel cells and battery vehicles





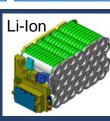


Fuel Cell Veh.





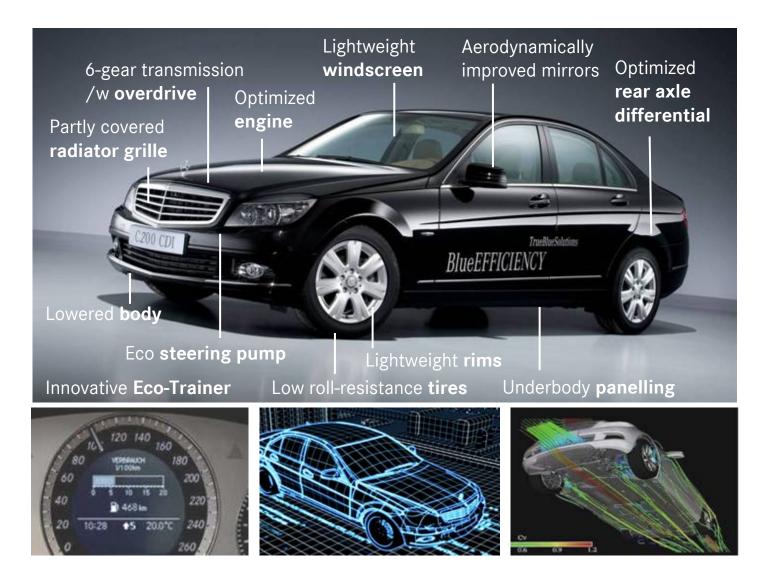
Energy for future mobility



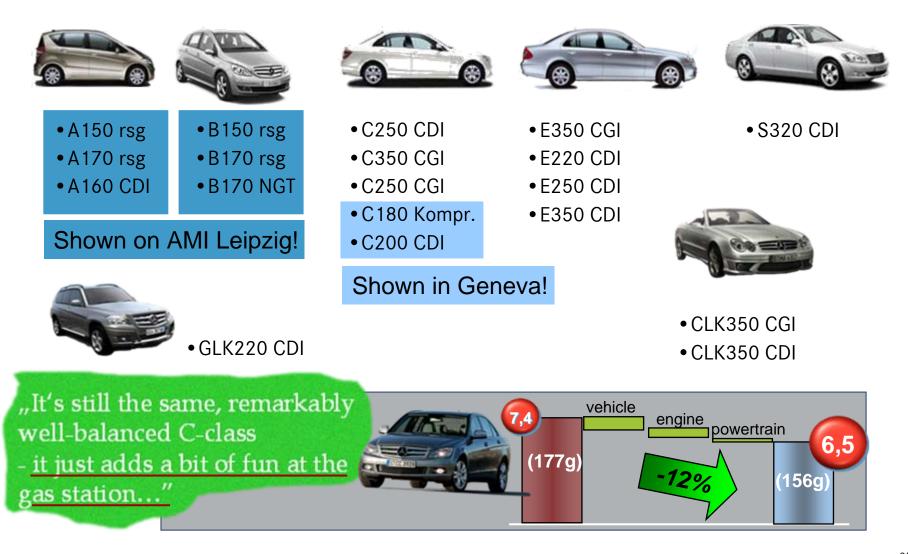
Emission free driving

**Battery-/E-Drive** 

## **Maximum Customer Benefit - with BlueEFFICIENCY**



# **Comprehensive Rollout of BlueEFFICIENCY has started**



# Future of the Combustion Engines with DiesOTTO Technology

#### Gasoline engines:

• Roll-out of V6-CGI engines on the way



• 4-Cyl direct injection engine with bench-mark properties to hit the market in 2009



### <u>DiesOTTO:</u> the best of two worlds

- Continuous improvements on our path to make diesels as clean as gasoline engines and gasoline engines as efficient as diesels
- DiesOTTO technology modules will be introduced step-by-step



#### DiesOTTO performance in the F700:

- 175 KW
- 400 Nm
- 5,4 l/100km (127g CO<sub>2</sub>/km)

#### **Diesel engines:**

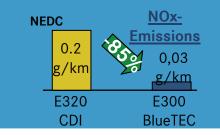
• ongoing BlueTEC offensive (Passenger Cars & CVs)



E320 BlueTEC (US): 2006

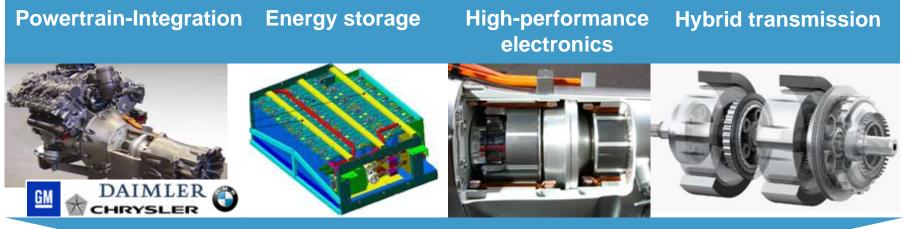


• World's most powerful 4-Cyl. Diesel engine (500 Nm) will enable downsizing, starting in 10/2008; prepared for hybridization and BlueTEC



Daimler's Technology Portfolio

## **Modular Hybrid Technologies**



**Pooling expertise and resources** 

S 400 BlueHYBRID with Lithium-Ion Battery

# Increase in efficiency by hybridization



ML 450 BlueHYBRID Two Mode



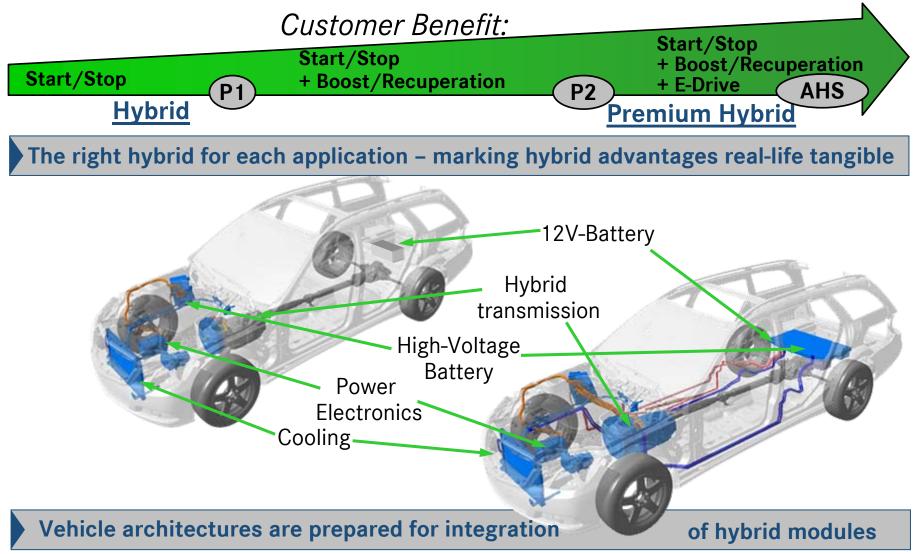
Hybrid City Bus



Hybrid Lkw

## **Our Modular Hybrid System:**

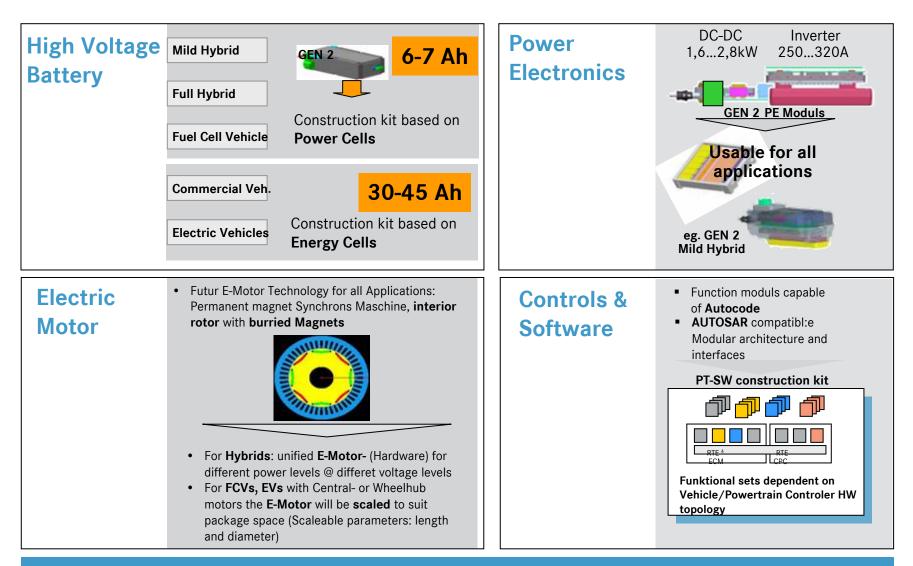
Scaleable features for maximum benefit in each vehicle class



## **Emission-Free Driving: Fuel-Cell- and Battery-Vehicles**

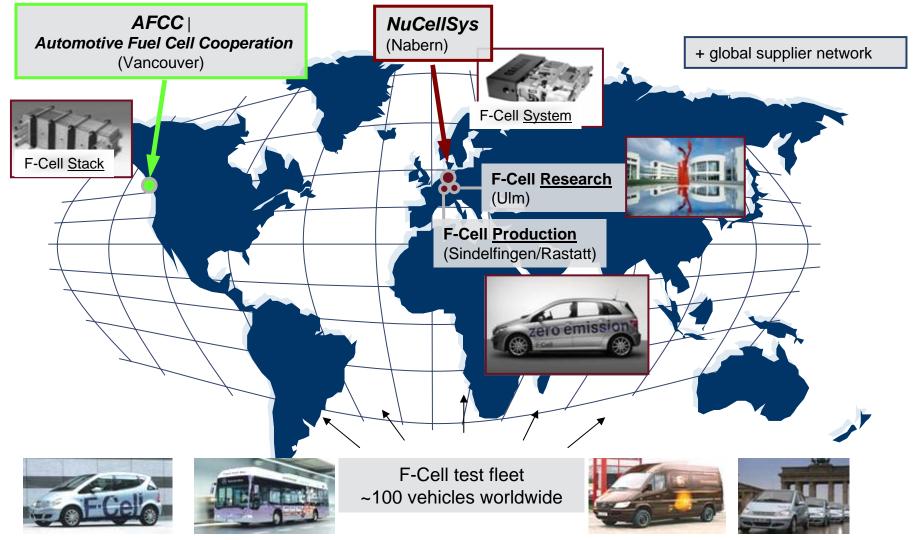
	Congested urban areas	Zero-emission regions	Megacities
Fuel Cell VehiclesImage: State of the state of th	Enab • <u>Technology/</u> •Battery ( •Fuel-cell •Hydroge •Electric e •Power el • <u>IP-Rights</u> •Partnerships	Victoria Components: esp. Li-Ion) stacks n storage engines lectronics	Battery-electric veh.   State of the s
in customer hands			test fleet in London

## **Electric Driven Vehicles: The 4 Decisive Components**



#### Daimler is active in all 4 components, for example R&D on HV-Batteries.

## Fuel Cell Vehicles: Global Knowledge Network to Support Series Production



## smart Electric Drive London Project

• Demo fleet of 100 smart electric drive on the basis of smart fortwo predecessor model

### • Electric drive:

- 30 kW Permanent Magnet-Motor
- Zebra-Battery 15 kWh (NaNiCI)
- Range: ~100 km in EUDC
- max. speed 100 km/h

" the car is fabulous – couldn't be better!"

Customer's voice in London



### Customers:

- Fleet customers preferably in city area of London as a 4 year lease model in co-operation with MB UK
- smart ev is exempt from London congestion charge!
- As of today 70 vehicles delivered with very positive feedback from customers
- End of production expected in July 2008

### Forecast:

- Investigation of other possible pilot projects on basis of the new smart fortwo for European cities

# **Emission-Free Driving: Engagement of all Stakeholder is Necessary!**

Daimler together with partners supports the build-up of a world wide infrastructure for H2 and electricity

Renewable power generation

• Public charging infrastructure



 Production and distribution of hydrogen for fuel cell vehicles



44

## **Possible Scenarios for Future Mobility**

	Global Solutions	Local Solutions	
- 2030	<b>Designer fuels</b> from liquefied coal, Available if CO2 capturing is resolved. Sunfuel from energy plants, cultivated on agricultural wasteland	H <sub>2</sub> /electric power from renewable energies for ZEV Electricity stored in batteries; improved H <sub>2</sub> storage	
- 2020	Unchanged mobility behavior: commuting, suburbs, malls, extending the driving pattern	Mass mobility is shrinking: Car sharing + party shopping emerge. Reduced commuting: mobility alternativesPlug-In combinations for short-range trafficStrict city regulation to reduce pollution/C02: inner city fuel consumption min. 30mpg for business service cars (New York)	
- 2010	Efficient combustion engines: Improvement of fuel quality step by step	H2 as industrial by-product in FCV <b>CO2 reduction strategy in cities:</b> Example: London's congestion charge	

## **Possible Scenarios for Future Mobility**

**Global Solutions** 

**Local Solutions** 



## **Mercedes-Benz Cars on the "Road to the Future"** Q&A



## Disclaimer

This document contains forward-looking statements that reflect our current views about future events. The words "anticipate," "assume," "believe," "estimate," "expect," "intend," "may," "plan," "project," "should" and similar expressions are used to identify forward-looking statements. These statements are subject to many risks and uncertainties, including an economic downturn or slow economic growth in important economic regions, especially in Europe or North America; the effects of the subprime crisis which could result in a weaker demand for our products particularly in the U.S. but as well in the European market; changes in currency exchange rates and interest rates; the introduction of competing products and the possible lack of acceptance of our products or services; price increases in fuel, raw materials, and precious metals; disruption of production due to shortages of materials, labor strikes or supplier insolvencies; a decline in resale prices of used vehicles; the business outlook for Daimler Trucks, which may be affected if the U.S. and Japanese commercial vehicle markets experience a sustained weakness in demand for a longer period than expected; the effective implementation of cost reduction and efficiency optimization programs; the business outlook of Chrysler, in which we hold an equity interest, including its ability to successfully implement its restructuring plans; the business outlook of EADS, in which we hold an equity interest, including the financial effects of delays in and potentially lower volumes of future aircraft deliveries; changes in laws, regulations and government policies, particularly those relating to vehicle emissions, fuel economy and safety, the resolution of pending governmental investigations and the outcome of pending or threatened future legal proceedings; and other risks and uncertainties, some of which we describe under the heading "Risk Report" in Daimler's most recent Annual Report and under the headings "Risk Factors" and "Legal Proceedings" in Daimler's most recent Annual Report on Form 20-F filed with the Securities and Exchange Commission. If any of these risks and uncertainties materialize, or if the assumptions underlying any of our forward-looking statements prove incorrect, then our actual results may be materially different from those we express or imply by such statements. We do not intend or assume any obligation to update these forward-looking statements. Any forward-looking statement speaks only as of the date on which it is made.