

DAIMLER

Daimler Day in China Mercedes-Benz Cars

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Group Research & Mercedes-Benz Cars Development

Beijing, May 28, 2010

Contents

Fascination and Responsibility –

Technology Leadership for Sustainable and Profitable Growth

1. Technology portfolio for sustainable mobility
2. Safety and innovation leadership
3. Safeguarding competitive cost structure
4. Further growth opportunities and outlook

Today's world is changing, individual mobility too

Globalization

- Global networks
- Worldwide cooperation
- Shifting of markets
- Increasing competition
- ...

Shortage of resources

- Shortage of natural resources
- Demand for alternative energy sources
- ...

Change of values

- „Green“ awareness
- Individualization
- Additional forms of mobility
- New communication channels
- ...



Technology

- Powertrain innovations
- New materials and procedures
- ...

Urbanization

- Mega-Cities
- Shortage of space
- New mobility requirements
- Areas with restricted access
- ...

Legislation

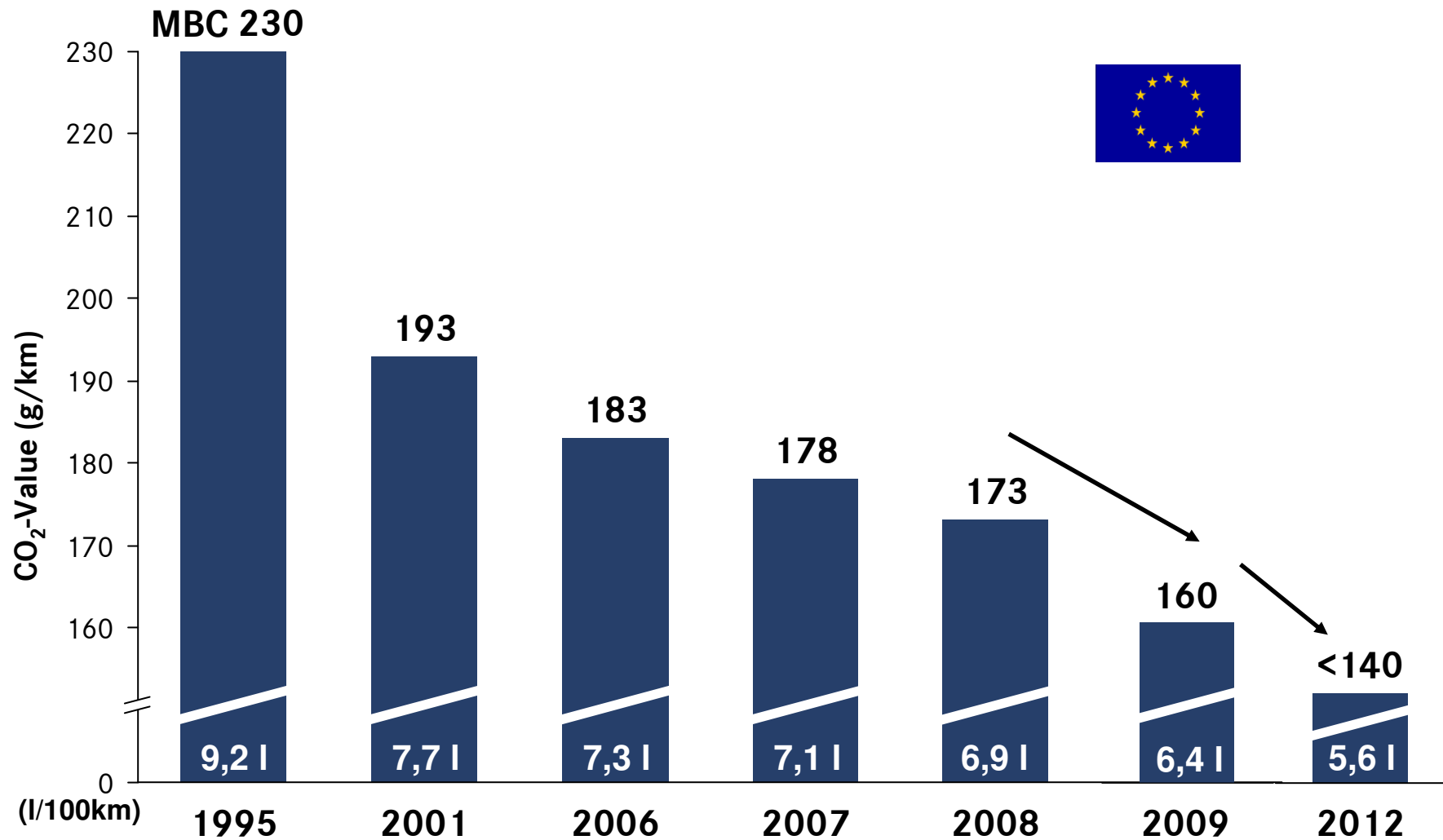
- National emission regulations
- National safety ratings
- Customs & trade restrictions
- Local production
- ...





**1. Sustainable
mobility**

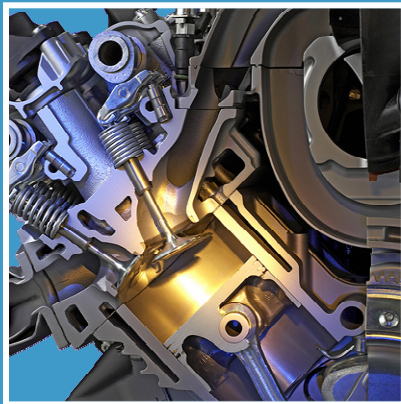
MBC fleet with significant improvements in fuel efficiency: Biggest step forward among competitors in 2009



Daimler roadmap for sustainable mobility

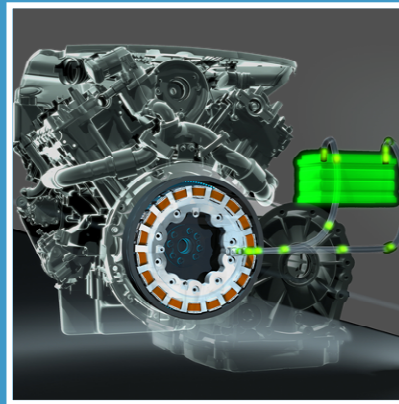
Optimization of vehicles with high-tech combustion engines

CDI, CGI, BlueTEC, DIESOTTO



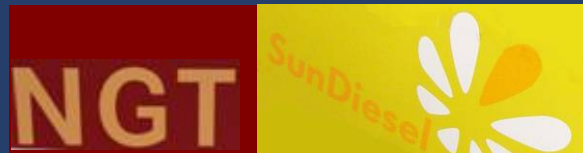
Further increase of efficiency through hybridization

HYBRID, BlueTEC HYBRID, Plug-in HYBRID



Locally emission-free electric vehicles with battery and fuel cell

E-CELL, F-CELL, E-CELL PLUS



Clean fuels for combustion engines

Energy sources for future mobility



BlueEFFICIENCY – 20 models in 2008 and 85 models by end of 2010 available

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Moving forward pro-actively:
Green Technology

Führend bei Green Technology

We kept our promise from Seville 2008!

Reactive Proactive

BlueEFFICIENCY-Measures

Examples:



Aerodynamics



Direct injection



ECO Start-Stop Function



Lightweight construction

Fine tuning of all components:

- Lightweight
- Aerodynamics
- Energy management
- ECO Start-Stop-Function
- Tyres
- ...

New high-tech engines



OM 651



M 271 EVO

Consistent development strategy for gasoline and diesel engines:

- Downsizing
- Direct Injection
- Variable valve drive
- Lightweight
- ...

New standards in efficiency

C 220 CDI BlueEFFICIENCY



4,4 l/100 km ; 117 g CO2/km

E 250 CDI BlueEFFICIENCY



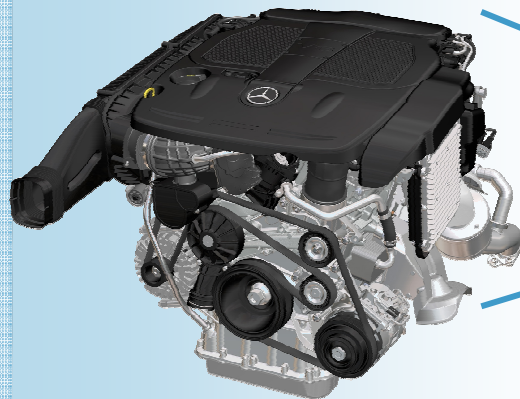
4,9 l/100 km ; 129 g CO2/km

C 250 CGI BlueEFFICIENCY



7,2 l/100 km ; 168 g CO2/km

New V6/V8 engines with excellent performance efficiency: Rollout throughout entire fleet has started



New generation V6 engine (M276)



Mercedes-Benz S 350

- Current generation V6 engine (M272)
- Rated output: 200 kW (272 PS)
- Torque: 350Nm

10.0 l
(234 g)

Fuel consumption

-24%

Clearly lower consumption despite higher performance

7.6 l
(177 g)

Mercedes-Benz S 350 CGI

- New generation V6 engine (M276)
- Rated output: 225 kW (306 PS)
- Torque: 370Nm

Rollout of hybridization safeguards economic sustainability of large premium cars



2009

ML450 HYBRID :
7,7 l/100km (182 g/km)



2009

S400 HYBRID:
7,9 l/100km (186 g/km)

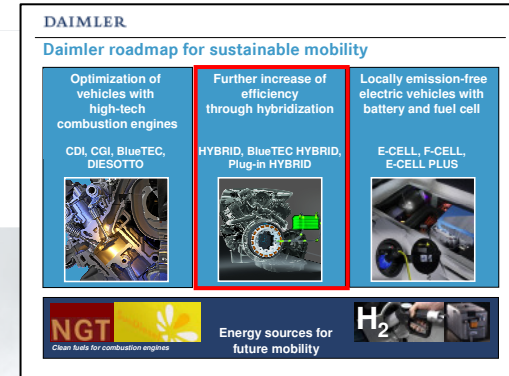
E300 HYBRID :
4,1 l/100km (109 g/km)



2011

S500 Plug-In- HYBRID :
3,2 l/100km (74 g/km)

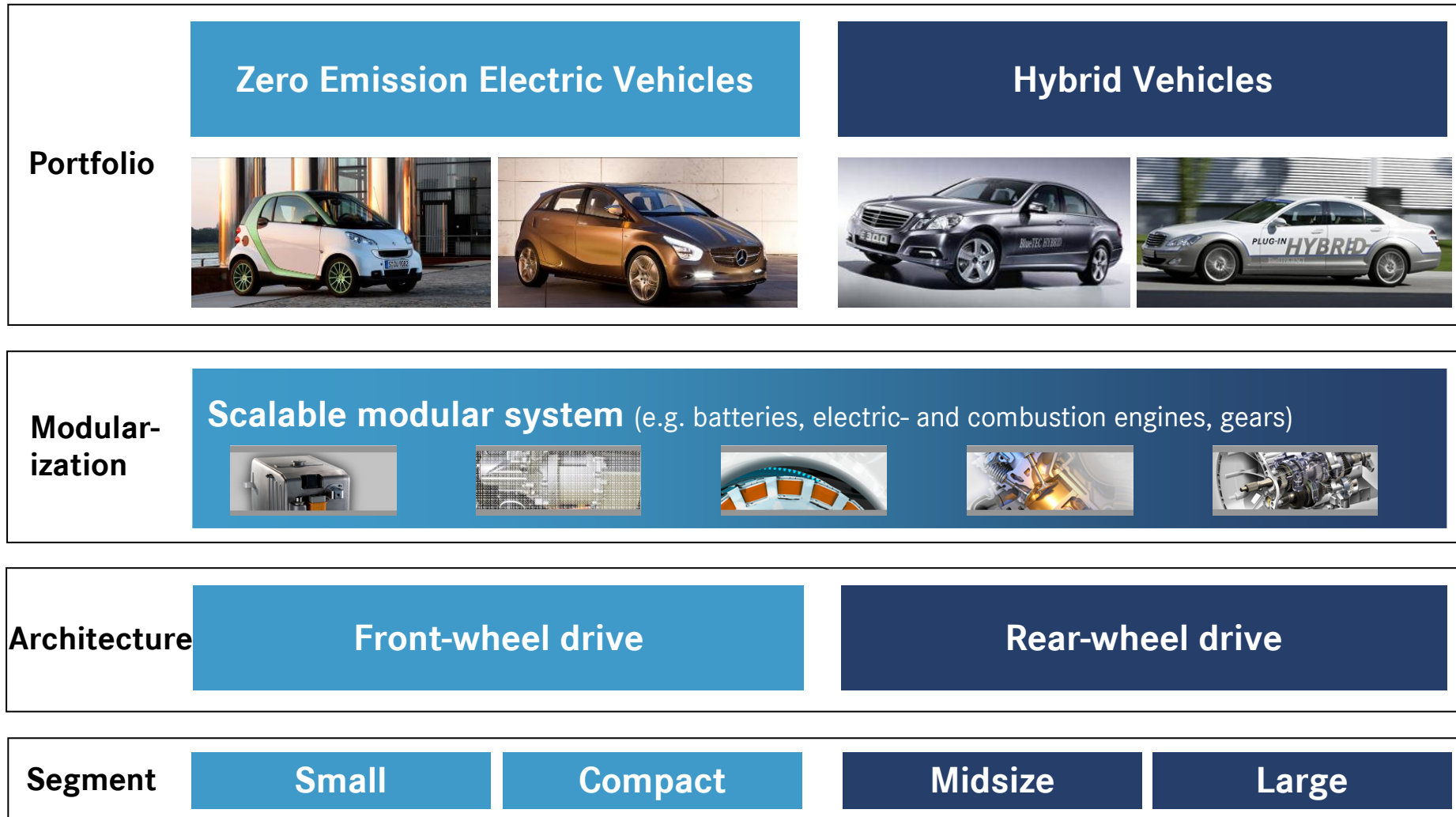
Next Gen.
 S-Class



Modular Mercedes-Benz Hybrid-Concept for maximum customer benefit

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Consistent strategy for the electrification of our cars
– Safeguarding competitiveness in terms of CO2 and costs



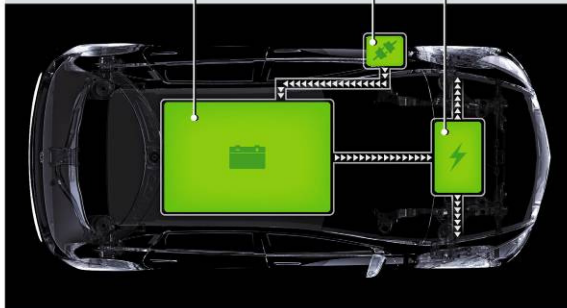
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Concept BlueZERO: Flexible vehicle architecture and e-drive module kit



E-CELL

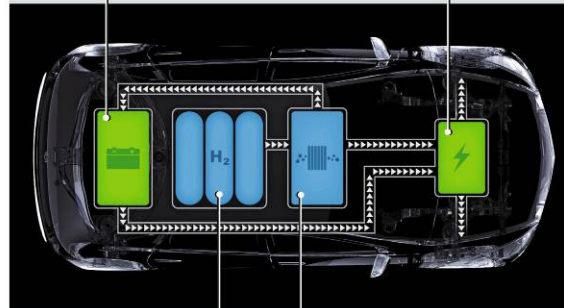
High-voltage battery Charger Electric motor



Range: 200 km

F-CELL

High-voltage battery Electric motor

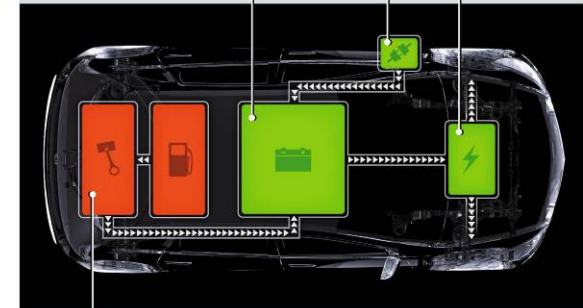


Hydrogen tanks Fuel-cell stack

Range: about 400 km

E-CELL PLUS

High-voltage battery Charger Electric motor



Combustion engine (range extender) with fuel tank

Range: 600 km

Zero-Emission: Advancement through experience

Electric Vehicle with battery



Generation 1 : Test fleet

smart fortwo electric drive in London
2007

Generation 2: Volume production

Customer fleet smart electric drive
& A-Class E-CELL
2009/10

Generation 3: Mass production

smart and MB electric drive
from 2012

Electric vehicle with fuel cell



Generation 1: Worldwide test fleet

A-Class F-CELL
2004

Generation 2: Small volume prod.

Worldwide test fleet B-Class F-CELL
2009/10

Generation 3: Mass production

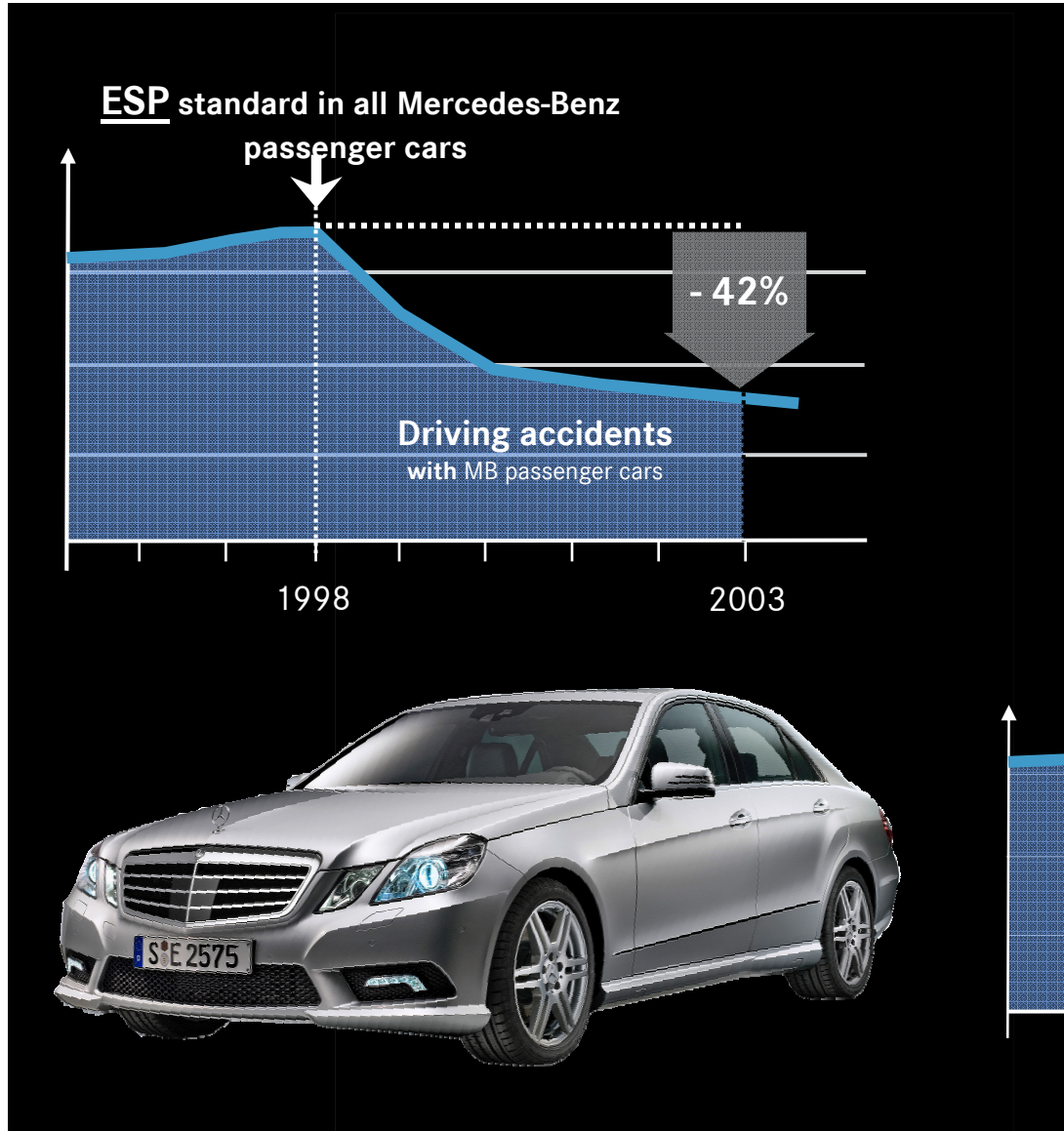
Mercedes-Benz F-CELL
from 2015

Modular E-Drive Kit allows for synergies and higher product maturity level



2. Safety and innovation leadership

Our road to accident-free driving



DAIMLER Mercedes-Benz Cars

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

20XX Accident-free driving

- Car-to-Car communication
- Intersection Assist
- PRE-SENSE, crash analysis
- Traffic sign recognition
- Lane departure prevention
- Drowsiness detection

2007 Blind Spot Assist

2006 PRE-SAFE® brake

2005 Brake Assist PLUS

2002 PRE-SAFE®

1998 Windowbag, adaptive front airbag

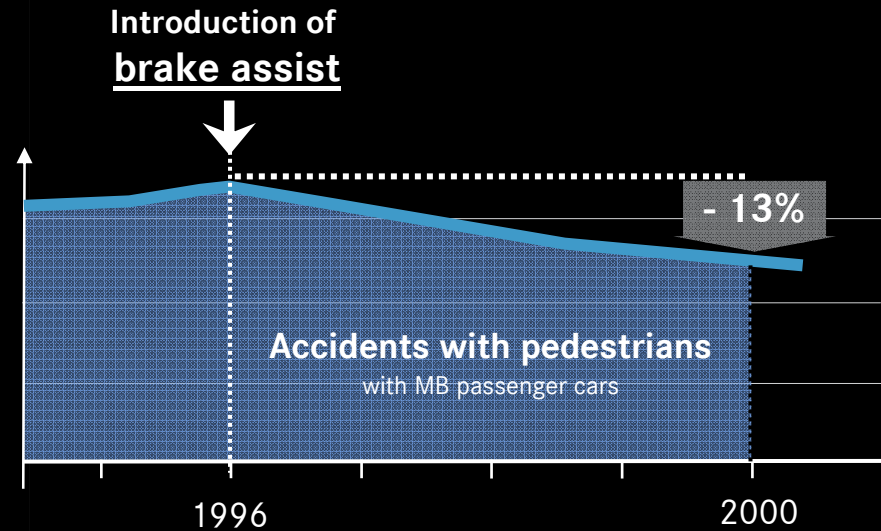
1996 Brake Assist (BAS)

1995 Electronic Stability Program (ESP)

1980 Airbag, belt tensioner

1978 ABS

1959 Crumple zone



New E-Class and S-Class with great potential to strengthen leadership position in Safety Technologies

- PRE-SAFE® Brake Step 2 (full autonomous braking)
- Adaptive High beam
- Lane keeping Assist
- Speed Limit Assistant
- Night Vision Assist PLUS (recognition of pedestrians)
- Attention Assist

Statistics confirm accident research conducted by Mercedes-Benz

Mercedes drivers enjoy better road safety

Stuttgart – The evidence is now clear: drivers of Mercedes vehicles are safer on the road than drivers of other car brands. This is the result of a study of Mercedes accident research based on official, anonymous data samples from the Federal Office of Statistics. Having looked at 18,748 accidents resulting



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And we already think a step ahead...

Examples:

PRE-SAFE® structure

- Folded steel profiles
- Inflatable in fractions of a second by high pressure gas (10-20 bar)



Spotlight-Function

Active Lane Keeping Assist

INTER-SEAT PROTECTION



DISTRONIC PLUS

Child protect system

PRE SAFE 360° System

Braking bag

HYBRID battery shield

PRE-SAFE® pulse

SIDE REFLECT

Adaptive brake light

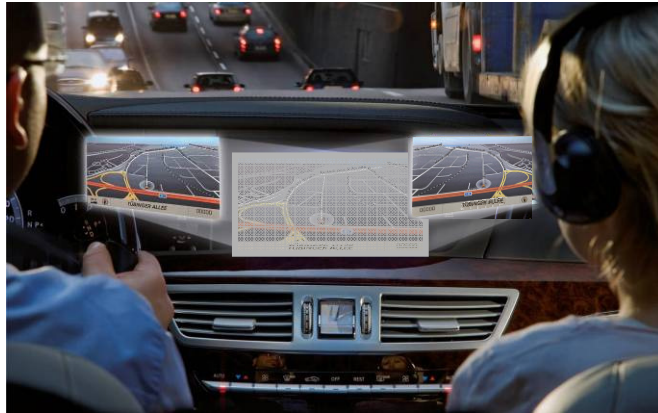
Size adaptive airbag

Interactive vehicle communication

Beltbag

Innovative infotainment systems for added customer value

1 SPLITVIEW – Two programs on one screen



Allows the driver and front passenger to view different content simultaneously on one and the same screen.

2 Smart drive kit for the iPhone: More Comfort and Lifestyle



First OEM to develop own drive app for the iPhone:

- Internet radio
- Hands-free system
- Navigation system
- Car Finder Assist
- Road sign recognition (future)

Innovative comfort systems for added customer value

- 1 AIRCAP® – an innovative idea: Less draught at the push of a button



- 2 ABC Preview – The “flying carpet”



- Identification of road condition in advance and corresponding adjustment of the electro-hydraulically controlled active suspension
- Unmatched driving comfort



3. Safeguarding competitive cost structure

With flat R&D-expenditures/-ratios MBC manages its current product and green technology offensive

Market Launches 2009-2011 (excerpt)

Vehicles

- SLK
- E-Sedan
- E-Coupé
- E-Station wagon
- E-Convertible
- E-Class ext.
- CLS
- C-Coupé
- new A/B-Class
- R-Class Facelift
- M-Class

Powertrains

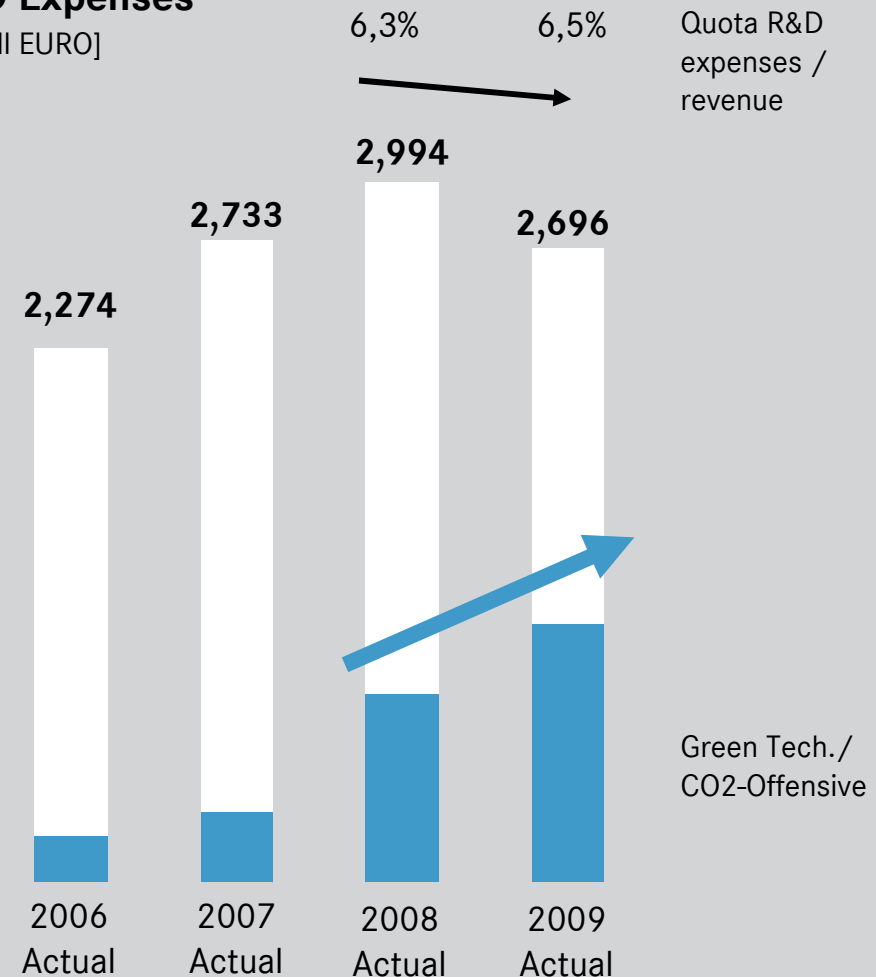
- New 4-Cyl Gasoline
- New 4-Cyl Diesel
- New V6/V8
- EU6 for all engines
- New 7-Speed automatic transmission

Alternative powertrains

- S400 Hybrid
- ML450 Hybrid
- E300 BlueTEC Hybrid
- Smart eDrive II
- A-Class eDrive
- B-Class F-Cell

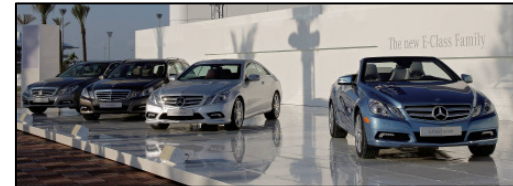
R&D Expenses

[in mill EURO]

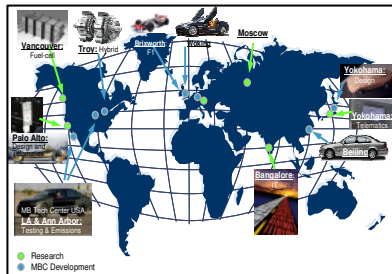


R&D initiatives for efficient cost structure with top quality

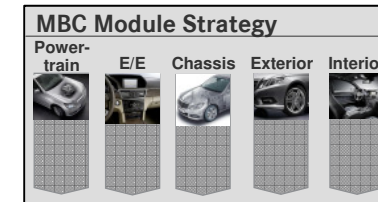
Common Vehicle Architecture



Global R&D network



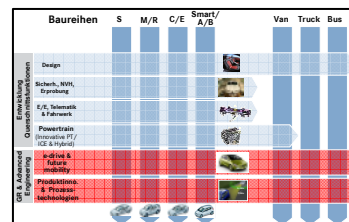
Module strategy



Mercedes-Benz Development System



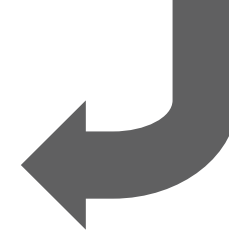
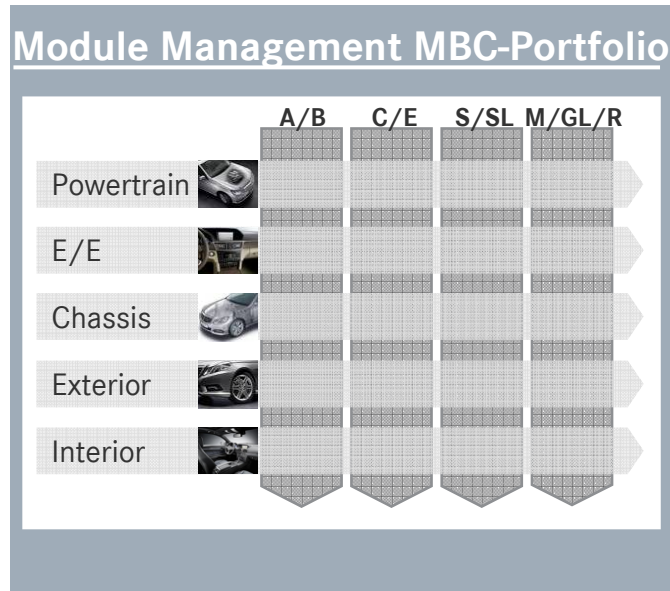
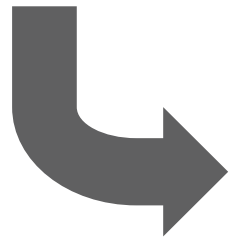
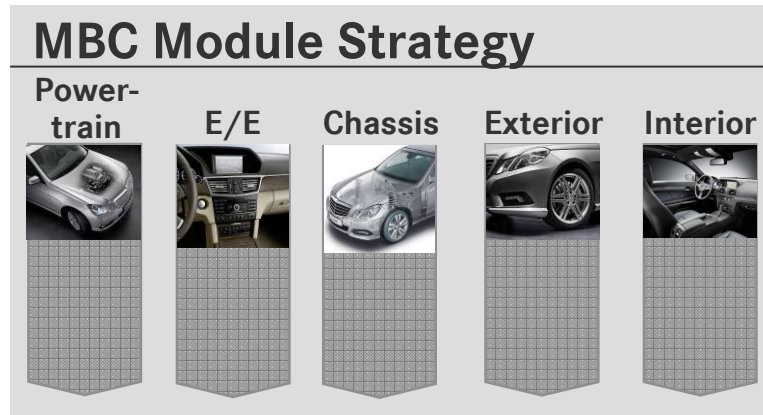
Lean R&D Organization



Intensive use of efficient Tools and digitalization



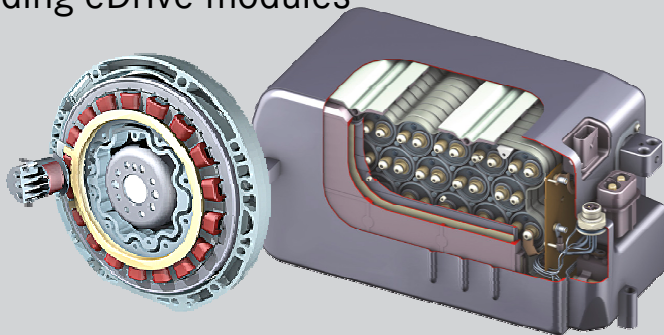
MBC vehicle architecture and module strategy enable competitive and cost-efficient product portfolio



Daimler Module Strategy

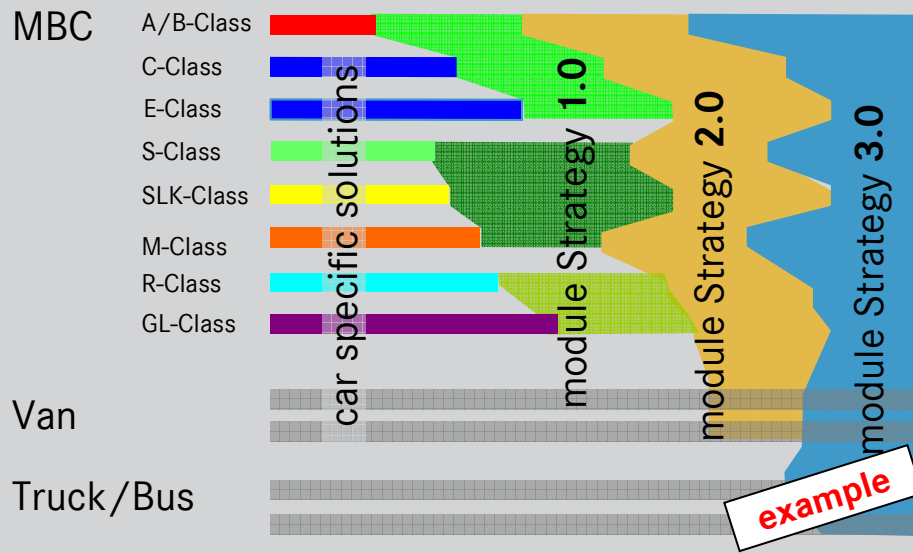
The key to affordable innovations

90 Modules defined for all major components, including eDrive modules



- Modules and sub-modules to be integrated into all major model lines, including Vans, Trucks and Buses
- Operative processes and organization set-up optimized for module strategy
- Larger lot sizes/economies of scale without jeopardizing model differentiation and customization potential

Model lines 2006 2008 2010 2012 2014 2016



- Quick adaptation of innovations into all products
- Affordable high-tech components
- Extensive testing and experience with modules means Top-Quality
- eHPV significantly decreased
- Substantial Cost benefit



4. Further growth opportunities & outlook

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Fascination and Responsibility is based on our future-oriented vehicle architecture and module strategy

	S	E	C	B	A
Powertrain					
E/E					
Chassis					
Exterior					
Interior					

In the past:

Synergies limited to hat and platform.

	S/SL	C/E	A/B
Powertrain			
E/E			
Chassis			
Exterior			
Interior			

Today:

Synergies limited to hat, platform parts and single modules.

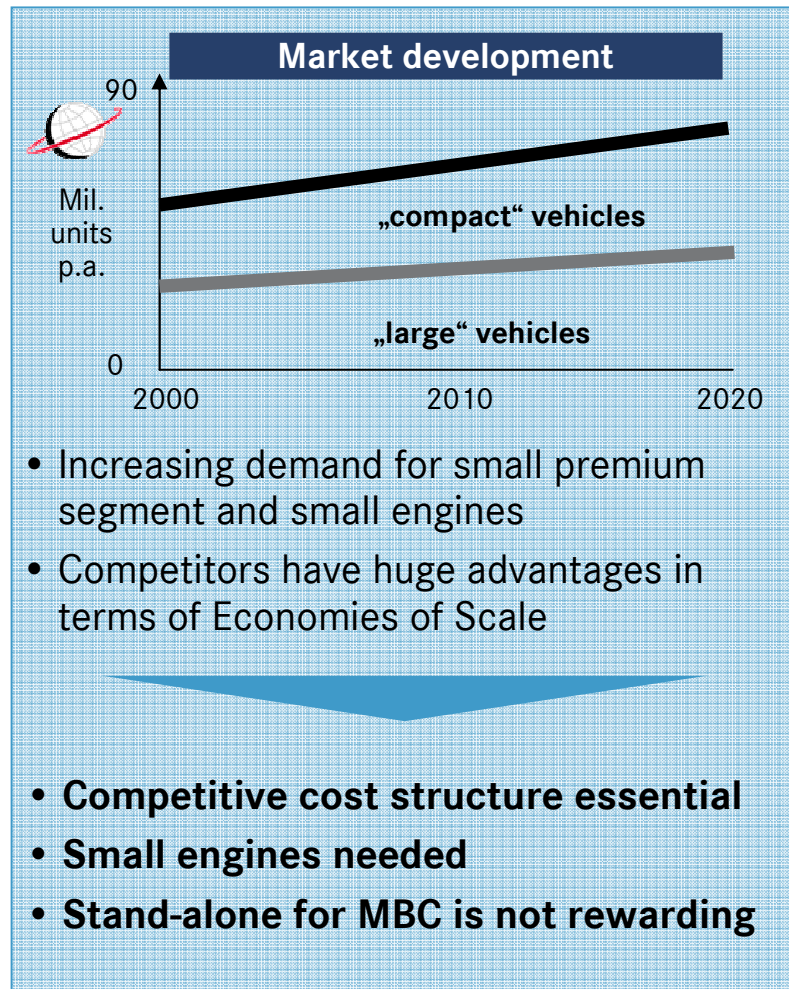
	MRA	MFA
Powertrain		
E/E		
Chassis		
Exterior		
Interior		

Future:

Synergies mainly based on module kit.



Strategic cooperation with Renault/Nissan – Generating Growth Potential and Economy of Scales



RENAULT NISSAN

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- Cooperation on the next-generation smart fortwo and Renault Twingo (platform, engines, e-drive)
- Co-development of 3-/4-cylinder engines for Mercedes-Benz entry models to benefit from downsizing trend
- Provision of 6-/8-cylinder engines to Infiniti
- Cooperation on light commercial vehicles to enlarge MB Vans portfolio

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Securing key technologies of tomorrow and generating new business - Lithium-Ion battery & e-drive components



- Jointly drive key technology for future mobility.
- Shareholding in Evonik subsidiary Li-Tec, Joint-Venture “Deutsche Accumotive GmbH & Co. KG”
- Joint research, development, production and marketing of lithium-ion battery cells and batteries.



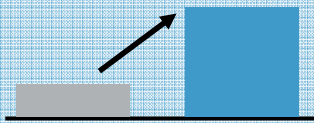
- Cooperate in battery systems, electric drive systems and vehicle projects
- Tesla’s lithium-ion battery packs and charging electronics for first 1,000 smart fortwo electric drive 2nd generation.

Electric vehicles: Additional growth opportunities in China

Facts & Figures China:

- 1,3 billions residents
- 247 cities >1 mill. residents
- Per 1000 residents \approx 25 passenger cars (USA \approx 435 pc, Germany \approx 509 pc)
- 5% of new vehicles are determined to be EV's by 2011 latest
- High subsidies for EV's granted

**Chinese market with
high potential for electric vehicles**



The image contains the BYD logo (a red oval with 'BYD' in white) and the Daimler logo (the word 'DAIMLER' in blue capital letters). Below the logos is a photograph of a busy street in China, showing a line of cars, including a large white bus and several smaller cars. The street has Chinese characters on the road. A vertical watermark 'treehugger.com' is visible on the left side of the photo.

- Memorandum of Understanding
- New electric vehicle suited to the Chinese market
- Technology partnership
- New brand to be created by Daimler and BYD

The cooperation with BYD enables us to participate in this growth market at a very early stage !

Guideline for our development strategy
is our refined brand



DAIMLER

Guideline for our development strategy
is our refined brand



DAIMLER

Guideline for our development strategy
is our refined brand



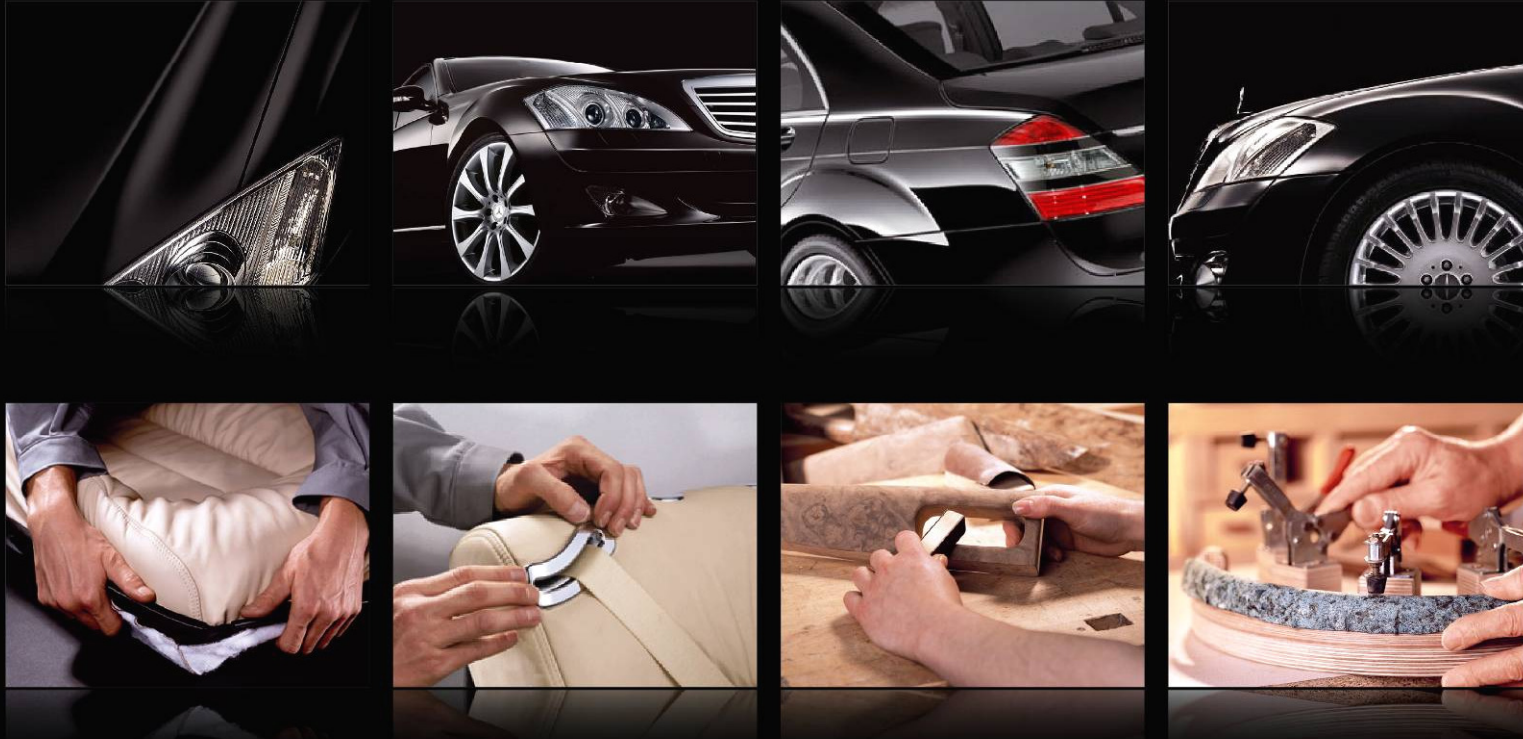
DAIMLER

Guideline for our development strategy
is our refined brand



Mercedes-Benz Design Strategy

High Quality as an expression of design



Mercedes-Benz Design Strategy

Form language of the future inspired by nature
Symbolizing aesthetics of sustainability



We pioneered new vehicle segments in the past
- and many more are yet to come!

The Concept Shooting Brake: Taking the Coupé design to
new heights!



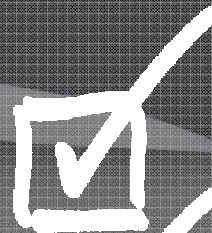
We pioneered new vehicle segments in the past
- and many more are yet to come!

The Concept Shooting Break: Taking the Coupé design to
new heights!



Conclusion: We have set the right course

We have cutting edge technologies...



a competitive cost structure...



and a fascinating & future oriented
product portfolio in place!

