

The background of the slide features a yellow BMW car in the foreground, driving on a road. Another car is visible in the distance. The text is overlaid on this image.

MASS CUSTOMIZATION AT BMW

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LOAN NGUYEN

AGENDA

➤ **Loan Nguyen**

- Historic development of mass customization in the automotive industry
- BMW – facts & Figures

➤ **Mohamed Nagib**

- European automotive industry competitiveness
- A strategy for customer-centric enterprises at BMW

➤ **Nirmal Joseph**


- Mass customization as a differentiation strategy at BMW
- Prognosis of future development

➤ **Conclusion**



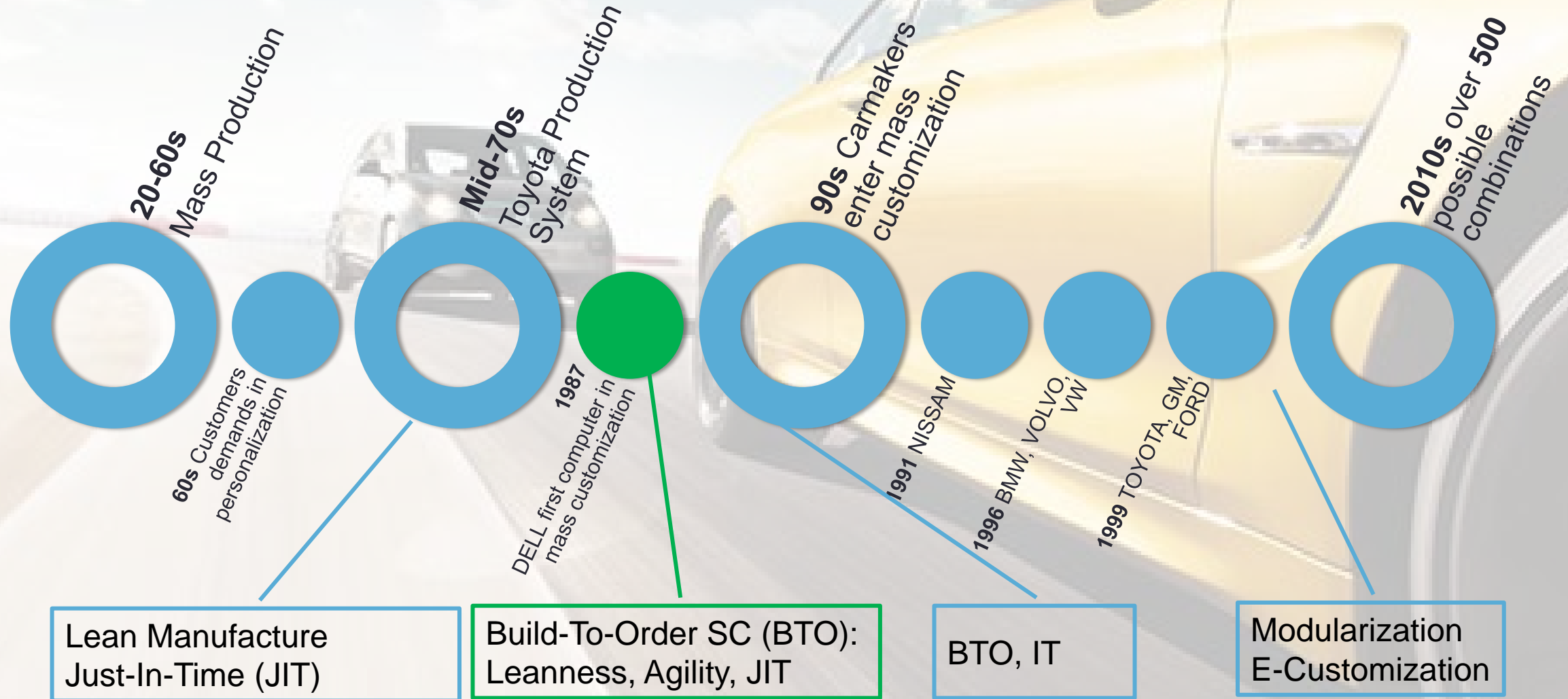


3D printed car
“Design Your Own”

A yellow sports car is shown from a side-front perspective, driving on a road. The background is blurred, suggesting motion. The car has a sleek, aerodynamic design. The text is overlaid in the center of the image.

HISTORIC DEVELOPMENT OF MASS CUSTOMIZATION IN THE AUTOMOTIVE INDUSTRY

HISTORY OF MASS CUSTOMIZATION

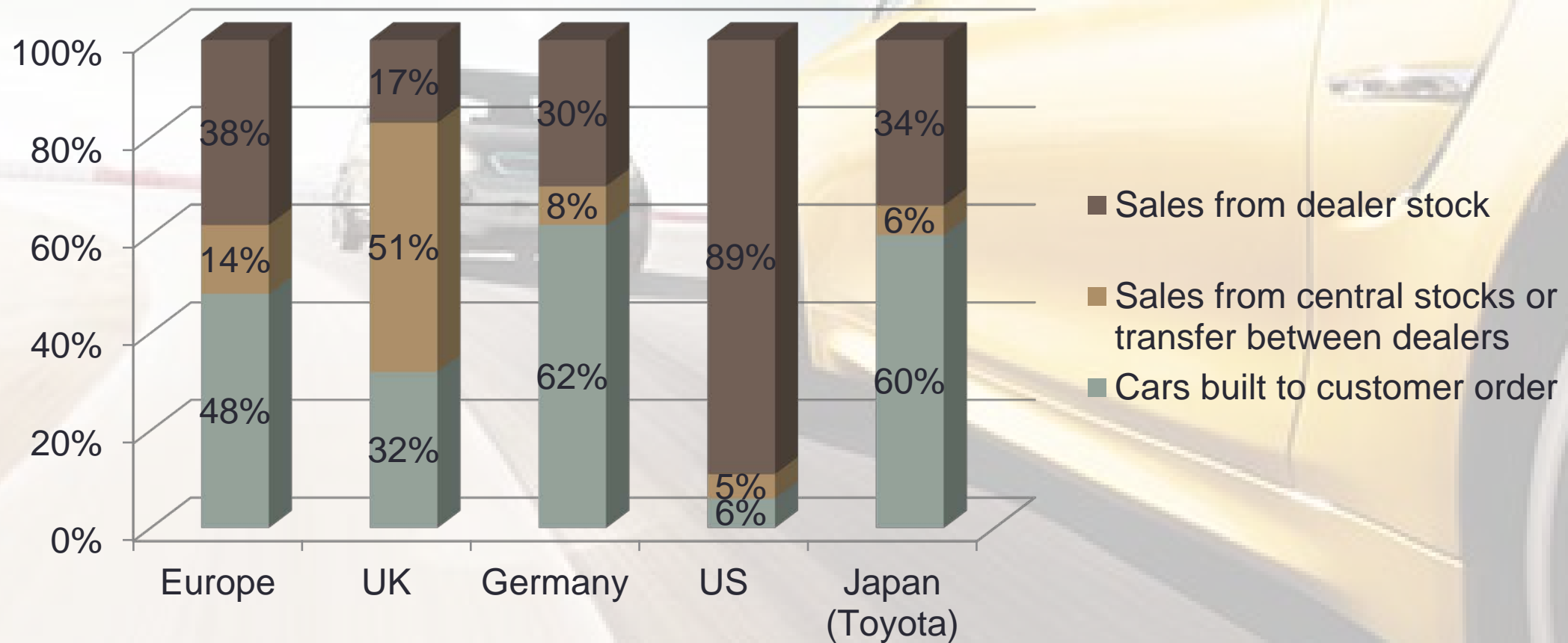


BTO PROGRAMS AT CAR MAKERS (1990s-2000s)

Car markers	Program Name	Order-To-Delivery Target
BMW	COSP – Customer Oriented Sales Processing	10 days
DaimlerChrysler	FastCar/Global Ordering	15 days
Ford	Order-To-Delivery	15 days
General Motors	Order-To-Delivery	20 days
Renault	Projet Nouvelle Distribution (PND)	Initially 14 days, revised to 21 days in 2002
Nissan	SCOPE (Europe), ANSWER (Japan), ICON (U.S)	14 days
Toyota		14 days
Volkswagen	Kunde-Kunde	14 days
Volvo	Distribution 90	14 days

Sources: Miemczyk & Holweg 2004, p. 173

SALES SOURCING IN MAJOR VOLUME MARKETS, 1999–2000



Sources: G. Williams, *Progress towards Customer Pull Distribution*, research paper 4/2000, International Car Distribution Programme, Solihull; H. Shioji, "The order entry system in Japan,"

A yellow BMW car is shown from a side-front perspective, driving on a road. In the background, another car is visible on the road. The sky is blue with white clouds. The text "BMW – FACTS & FIGURES" is overlaid in the center.

BMW – FACTS & FIGURES

DO YOU KNOW WHO BMW ARE ??

1st in most reputable company worldwide (2012, Forbes)

11th World's Most Valuable Brands (2014, Forbes)

Most sustainable automotive company in the world (2012)



BMW GROUP

- **BMW - Bayerische Motoren Werke AG**
- **Headquarter: München**
- **Industry: Automotive**
- **Employees: 110, 351**
- **Driven by design - Famous with styling and exceptional performance**
- **Locations: 150 countries (EU: 64, Asia Pacific: 32)**
- **Financial status (2013)**
 - Market Capital: \$83 bil.
 - Sale revenues: \$101 bil.



ECONOMIC FIGURES

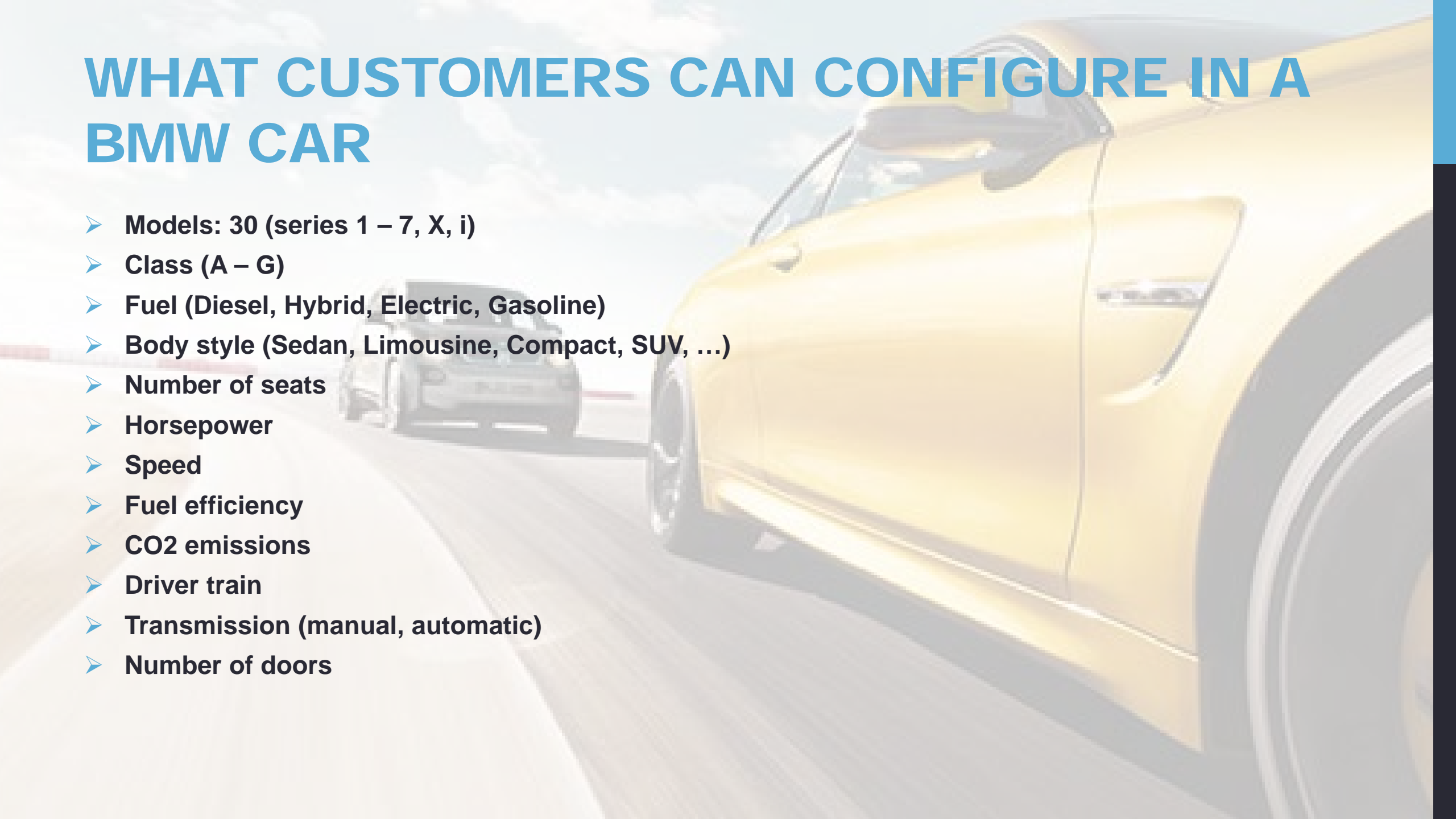
➤ Economic figures in FY 2013 (<http://www.statista.com/>)

	# Vehicle sales (million units)	Revenue (in €billion)	Profit (in €billion)
Volkswagen	9.73	197.01	12.43
DaimlerChrysler	2.35	117.98	10.82
BMW	2.08	76.06	7.99

➤ The world's most valuable brands, Nov. 2014 (<http://www.forbes.com/>)

	Rank	Brand value (in \$ billion)
Volkswagen	56	8.9
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BMW	11	28.8

WHAT CUSTOMERS CAN CONFIGURE IN A BMW CAR

A yellow BMW car is shown from a side-front perspective, driving on a road. In the background, another car is visible on the road. The sky is blue with some clouds.

- **Models: 30 (series 1 – 7, X, i)**
- **Class (A – G)**
- **Fuel (Diesel, Hybrid, Electric, Gasoline)**
- **Body style (Sedan, Limousine, Compact, SUV, ...)**
- **Number of seats**
- **Horsepower**
- **Speed**
- **Fuel efficiency**
- **CO2 emissions**
- **Driver train**
- **Transmission (manual, automatic)**
- **Number of doors**

A yellow sports car is shown from a side-front perspective, driving on a road. In the background, another car is visible on the road. The sky is blue with white clouds. The text "EUROPEAN AUTOMOTIVE INDUSTRY COMPETITIVENESS" is overlaid in the center.

EUROPEAN AUTOMOTIVE INDUSTRY COMPETITIVENESS

EUROPEAN AUTOMOTIVE INDUSTRY COMPETITIVENESS

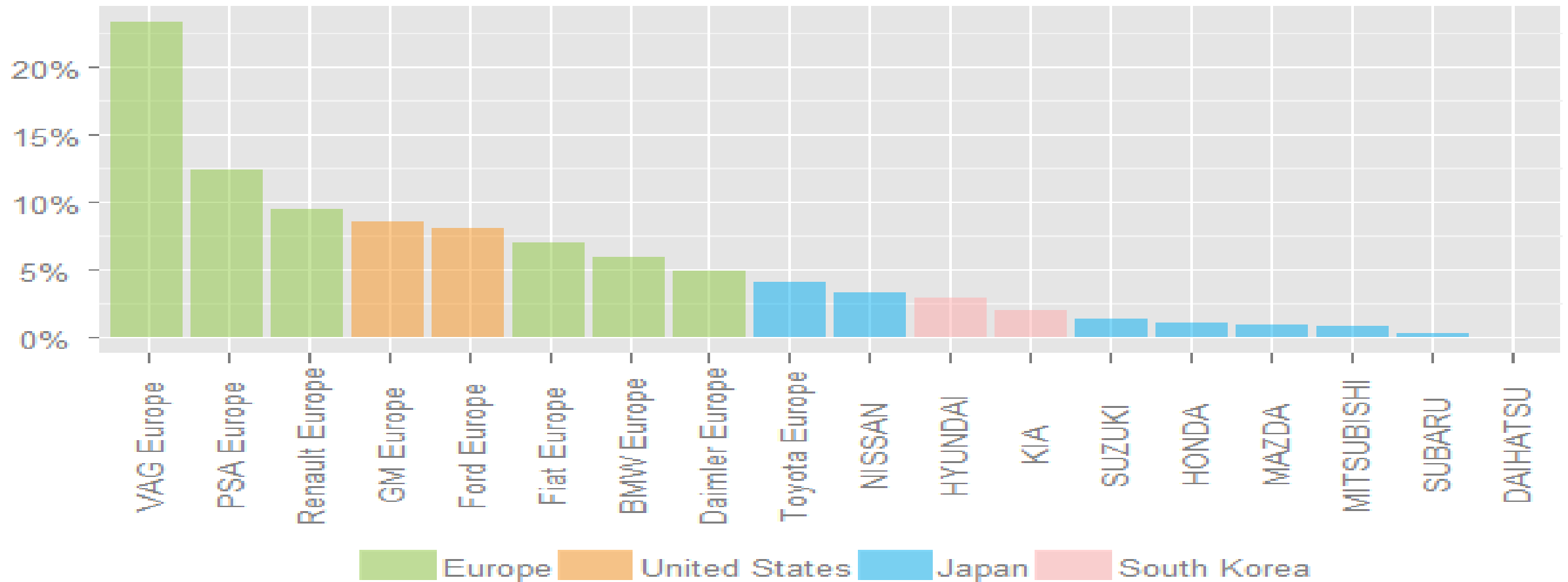
How is the European automotive industry in current situation ?

- Automotive sector is considered strategically important and a cornerstone for the industry and economy of the EU region
- Central to many other economic activities while delivering affordable and desirable products, meeting consumer demands
- A strong industrial network characterized by a flexible and integrated supply chain
- A workforce in both manufacturing, R&D and servicing that is trained and prepared to work with a multitude of technologies.

In order to achieve transformation and growth for the automotive industry to enhance fair competitiveness and sustainable growth .an ambitious industrial policy strategy for the automotive sector will be needed in the coming years.

INDUSTRY MARKET SHARE DISTRIBUTION IN EUROPE REGION

European passenger car market, 2011 share in percent by OEM



HOW CAN COMPANIES IMPROVE THEIR PROFITS AND INCREASE THEIR COMPETITIVENESS?

There are three key steps that companies can follow:

- **Refocusing on what the customers really value:** Re-examining the goods, services and propositions that are offered. By checking how existing goods and services meet changing customer requirements there is the opportunity to re-design those offerings so that they cost less to produce and deliver
- **Changing the operating model:** Looking at new, lower cost operating and delivery models. This can be achieved by considering channels to market, distribution and production partners and a new internal operating model
- **Driving an internal lower cost and a good efficiency business process:** Stopping any activity that does not add value: Companies should uncover inefficient end to end delivery processes right across the supply chain; drive out waste and the cost of failure, maximise the use of the capacity of all resources; and seek new value by exploring sourcing options for services and components

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A STRATEGY FOR CUSTOMER-CENTRIC ENTERPRISES AT BMW

HOW DID BMW IMPROVE COMPETITIVENESS ?

Enhancing Competitiveness

Mass
customization

Customer
centric approach

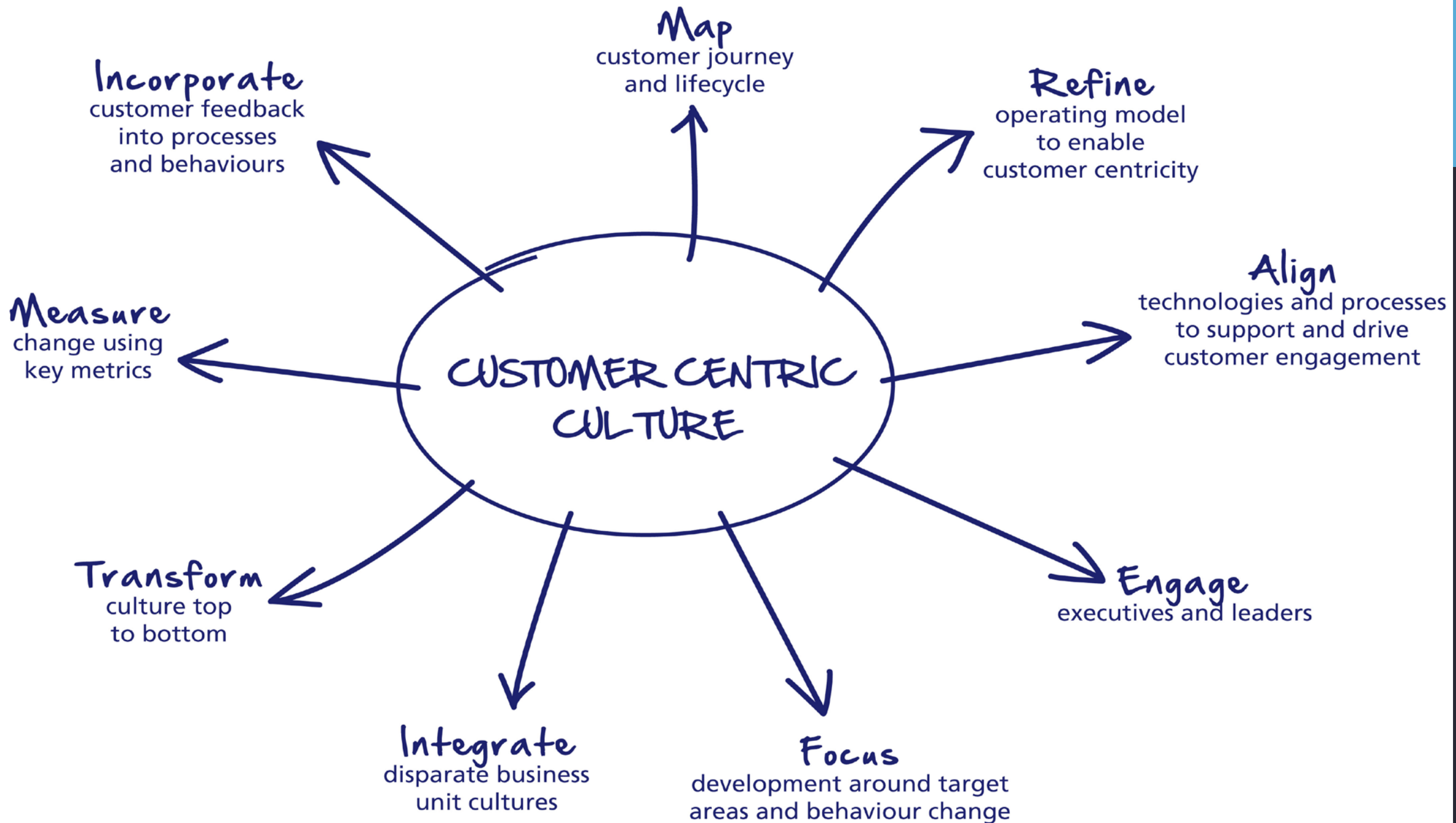
Changing the
operating model

Driving internal
lower cost

Focusing in the
customer needs

CUSTOMER CENTRIC CONCEPT





HOW MUCH IS CRM IMPORTANT FOR BMW?

- **BMW is a manufacturer of luxury cars and has to offer extra value for its customers.**
- **Product differentiation from other automotive manufacturers.**
- **Change the concept of the company from selling what it has to provide what customers needs , which helps increase BRAND loyalty**

HOW DID BMW IMPLEMENT THE CUSTOMER CENTRIC APPROACH ?

- In 1998 , launching the Customer Oriented Sales and Production **(COSP)** Interactive online ordering system to produce the car that the customer needs
- **E-Brochure:** The customer could mix and match millions options and finally choose the one that meets their specific requirements
- **Dealers:** Where the customers approach to ask about dealers suggestion for various options . Dealers play a role in customer centric concept to develop and maintain long term relation with the customers
- **Feedback:** Getting customer feedback through websites and dealer chains

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MASS CUSTOMIZATION AS A DIFFERENTIATION STRATEGY AT BMW

MASS CUSTOMIZATION AS A DIFFERENTIATION STRATEGY AT BMW

- From conservative approach “eine Wurst, drei Größe” Series 3, 5, 7 to “Driven by design”
- Revolution in design with arrival of Chris Bangle (1992)
- Customers pay a great deal of money- So why not make a car suited exactly to their needs ?
- Similar strategy pioneered by Dell and Levi's
- Facing stiff competition from other automotive giants like Daimler and Volkswagen
- Post purchase customization was a big business in Europe and USA



BRIEF LOOK INTO THE PRODUCTION METHODS WITHIN THE FACTORY

➤ https://www.youtube.com/watch?v=YygcVR_VNzl



DECISIONS TAKEN TO IMPLEMENT MASS CUSTOMISATION

- **Launched the Customer Oriented Sales and Production (COSP) system**
- **Launched an interactive website to aid COSP**
- **Meticulously prepared a detailed plan of the entire supply chain management system with all the raw material suppliers**
 - Close proximity to all suppliers
 - Highly automated plants
 - Advanced robots to aid workers in the final stages of production
- **Invested heavily on ERP solutions with SAP**
- **Flexibility in manufacturing process**
 - Leipzig Plant's Circular design
 - Assembly lines facilitated different models
 - Interchangeability of parts

ACHIEVEMENTS WITH MASS CUSTOMIZATION

- Customized cars are delivered 12 days after the order being placed
- Last-minute changes up to 5 days before production begin
- Able to manufacture all cars on-demand
- A big part of BMW's success in the last decade was due to customization
- Better economics of scale (12,000 to 50,000 units per year), keep vehicles pricing competitive with Mercedes-Benz and Audi
- 95% Rolls-Royce cars in 2013 were customized by their owners



ACHIEVEMENTS WITH MASS CUSTOMIZATION

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PROGNOSIS OF FUTURE DEVELOPMENT

BENEFITS AND CHALLENGES

BENEFITS

- **Customer Loyalty & Increased brand reputation**
- **Innovation possibilities are immense**
- **Avoiding saturation of market through differentiation**
- **Huge learning curve**
- **Low inventory costs**

CHALLENGES

- **Rising prices of raw material**
- **Some customers still prefer to take some out a dealer's lot directly**
- **Even though 12 days is pretty impressive, customers still want lesser delivery time**
- **US laws has not yet allowed mass customization to be standard procedure**
- **In the US, laws allow the customer to call of a deal before the purchase**
- **Choice Navigation - Too many possibilities can overstrain a customer**
 - <https://www.youtube.com/watch?v=gRwR1WH0rR8>
- **Customer choices should align with the company's image**

FUTURE OF MASS CUSTOMIZATION

- **Continually improving Space development, Robust process design and Choice navigation**
- **Trying to apply mass customisation to its after sales services**
- **Discussing and gathering much more accurate data through social media**
- **Recommendation engines which help the customer choose which options are the best**
- **Working in tandem with 3d printing companies such as Shapeways, Ponoko, Sculpteo etc to develop innovative solutions**

■ <https://www.youtube.com/watch?v=qJuTM0Y7U1k>

CONCLUSION

- **Successful strategy employed by the BMW group**
- **Differentiated BMW from the rest of the Automobile Manufacturers**
- **Resulted in Huge Brand Recognition**
- **Enormous scope for improvement**



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