

MOULDS EVENT 2006
Marinha Grande, 17th November

**Automotive Industry:
Developments and Trends**

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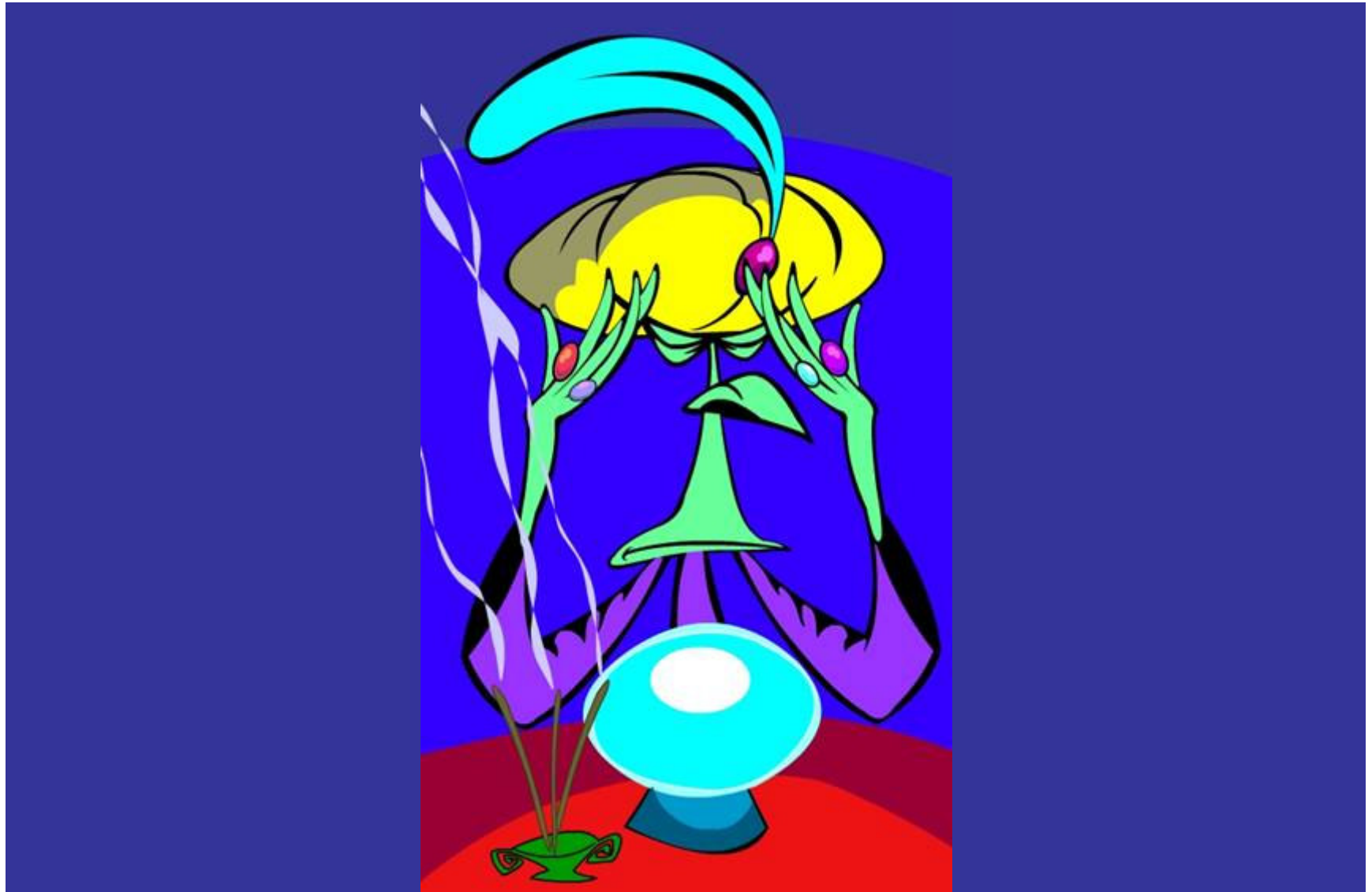
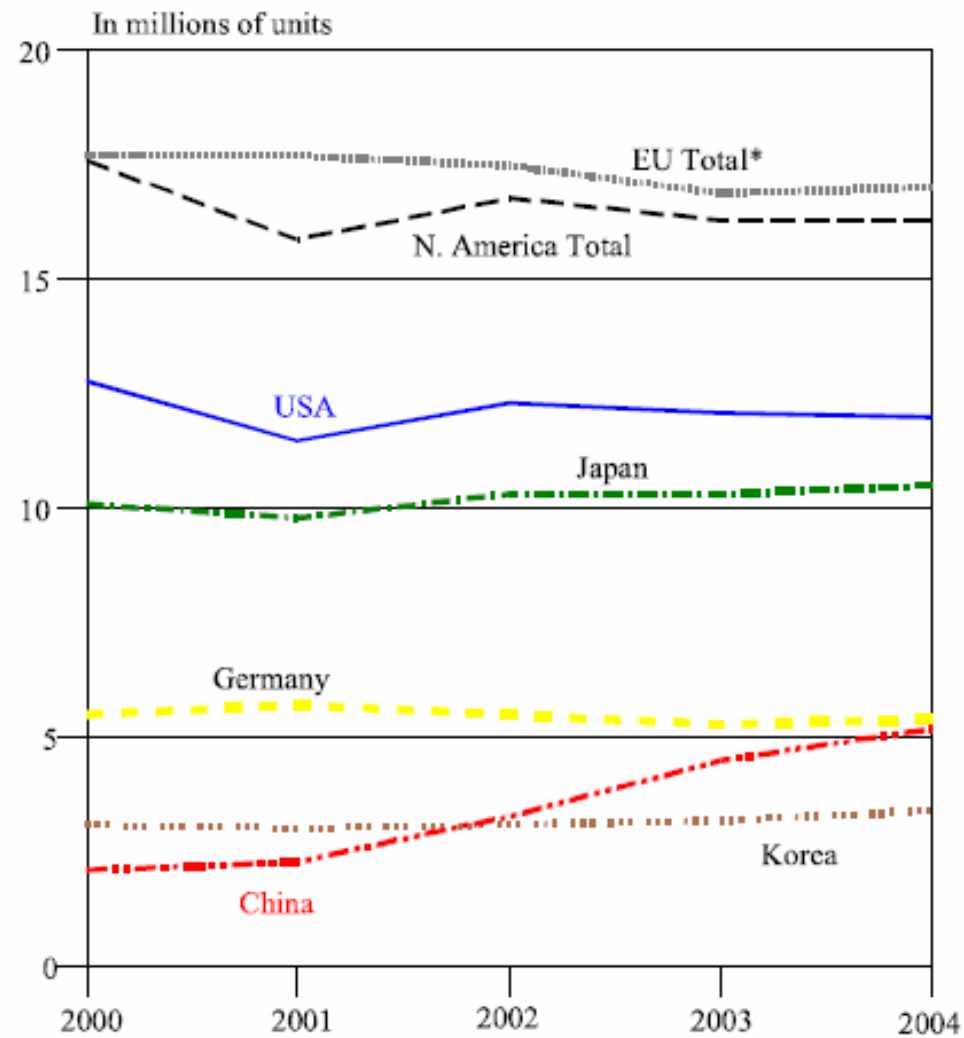


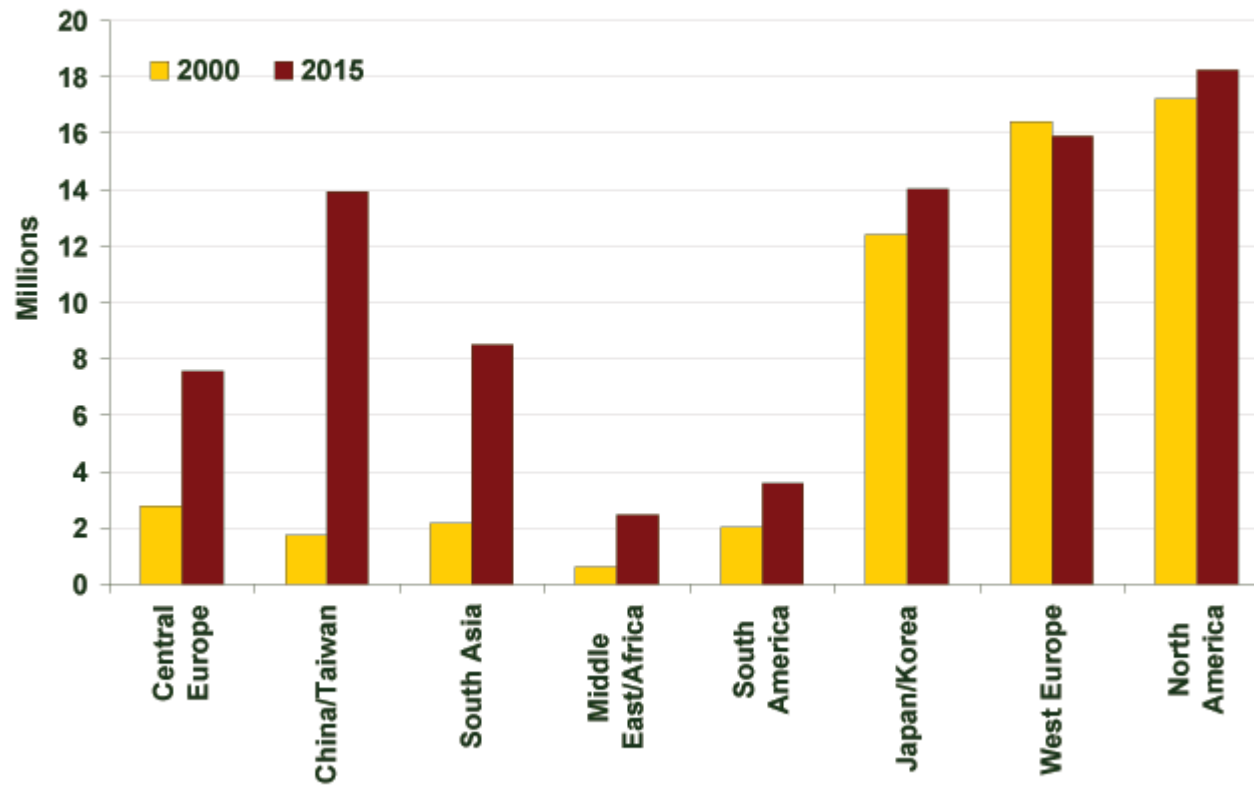




Figure 1. Leading Motor Vehicle Producers

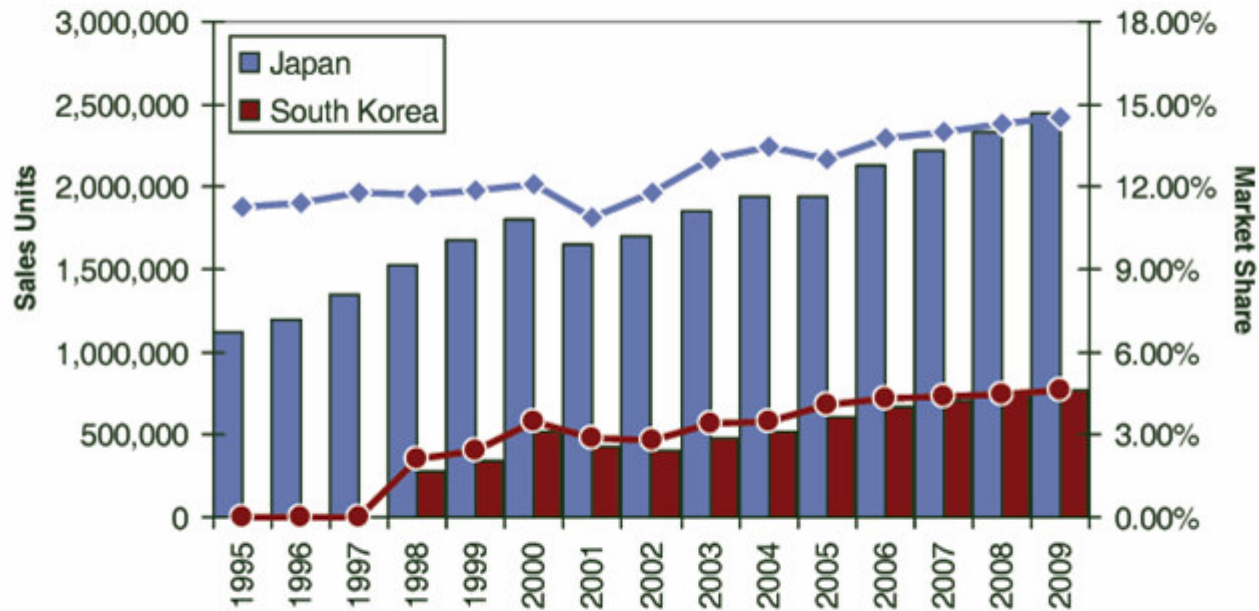


PRODUCTION VOLUME: 2000 vs 2015





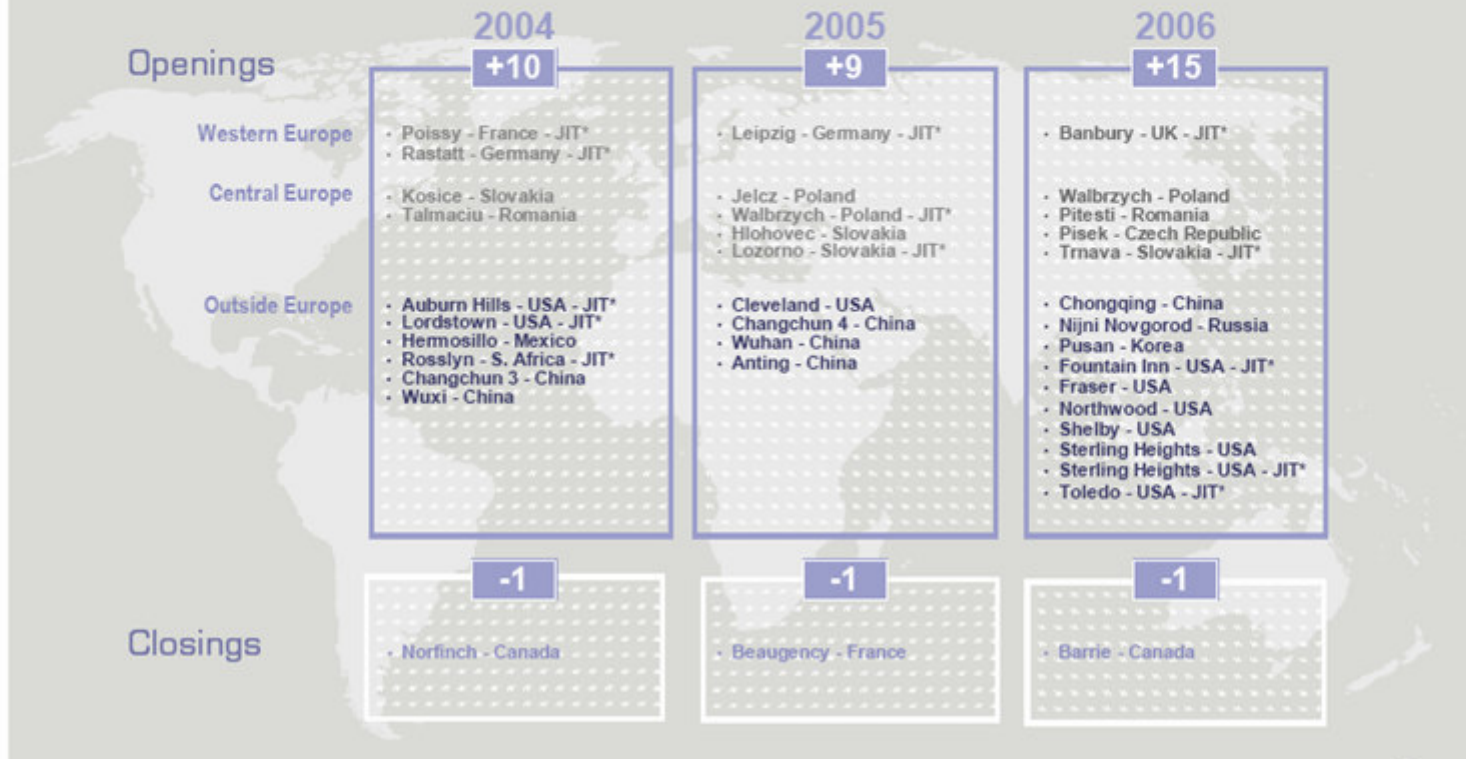
Western Europe Passenger Car Sales: Asian Manufacturers



 Manufacturing process and industrial redeployment

faurecia

Redeployment of industrial footprint



- **Improve fuel economy and reduced greenhouse gas emissions**
 - **Improved engine performance**
 - **Weight reduction**
 - **Recycling (85% of vehicle)**
 - **Lifecycle assessment**
- **Safety legislation and consumer requirements**
- **Cost reduction & fuel costs**

- Increase in
 - power train complexity
 - power unit output
 - vehicle complexity
 - vehicle safety & refinement
 - vehicle size & weight

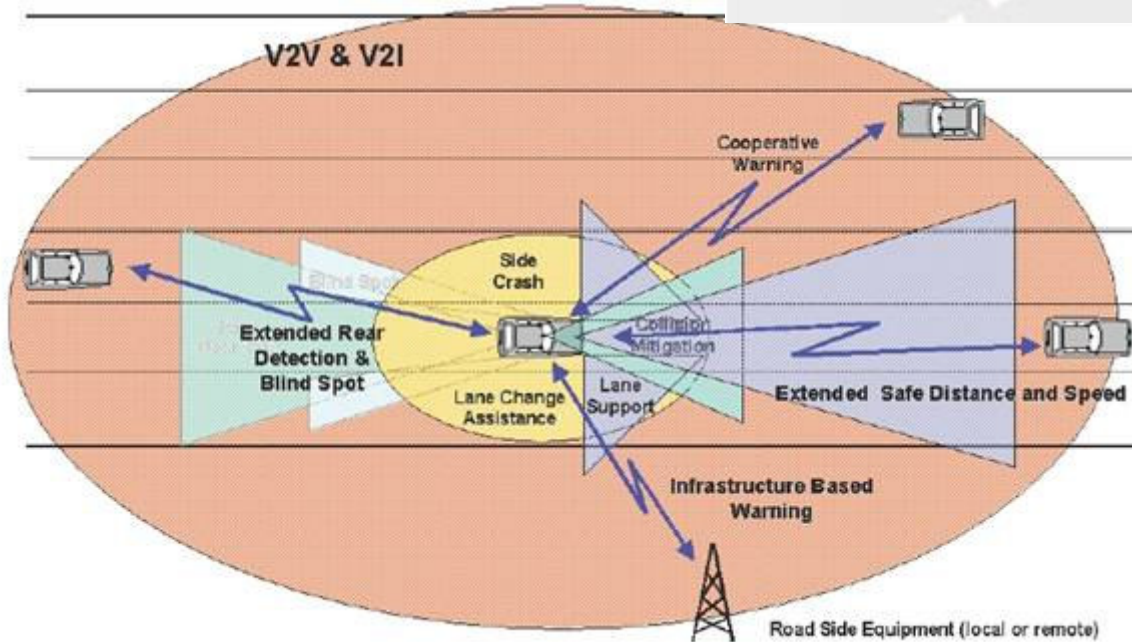
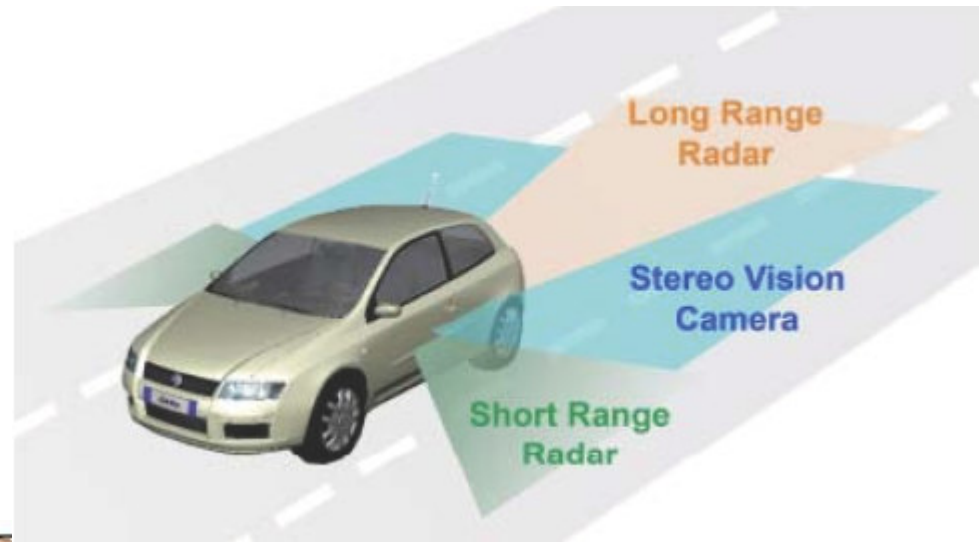
Future cars will be

- Safer



Future cars will be

- Safer
- Smarter



Future cars will be

- Safer
- Smarter
- Greener



Future cars will be

- Safer
- Smarter
- Greener
- Lighter



- Over the life of a vehicle, 90% of emissions are from running the vehicle
- 10% weight save results in approximately 8% reduction in fuel consumption and CO₂ emissions

“Saving even a few pounds of a vehicle’s weight... could mean that they would go faster and consume less fuel. Reducing weight involves reducing materials, which, in turn, means reducing costs as well.”

Henry Ford

- **Lightweighting**
 - **Advanced high strength steels (AHSSs)**
 - **Aluminium**
 - **Magnesium**
 - **Titanium**
 - **Composites**
 - **Metal-matrix materials**
 - **Glass- and carbon-fiber-reinforced thermosets and thermoplastics**

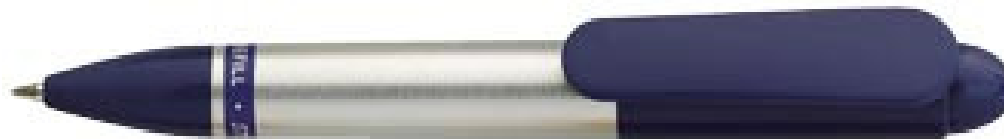
- **Selection**
 - **durability**
 - **end of life recyclability**
 - **cost**
 - **weight**
 - **design flexibility**
 - **safety**

Future cars will be

- Safer
- Smarter
- Greener
- Lighter
- ...

«What is essential is invisible to the eyes»

The Little Prince - Antoine de Saint-Exupery



HMI study

- Acceptance
- Learnability
- Easy to use
- Accessibility



Opposing to increasing complexity

- Intuitive controls
- Perceived quality improved



Increasing complexity

- Nomadic devices





Key factors for success

- **Exceed customer expectations through innovation, technology and continuous improvements in quality, service and value**
- **Offer innovative features and technology to create new value**
- **Expand into new geographic markets to take advantage of emerging growth opportunities**
- **Reduce costs and improve productivity**

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