1885 Benz Motorwagen:
First cross-country automobile journey
On 5 August 1888 Mannheim-Pforzheim

The Evolution of Mobility
Where it started…
The Evolution of Mobility
Where it started…

Mass production of cars by Henry Ford: Ford Model T

1924-31 Opel Laubfrosch („treefrog“)
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Where it started…

1956 – 61 Romi-Isetta, first car produced in Brazil

The Evolution of Mobility
How the Future looked like in the Past

1955 Lincoln Futura
1958 Ford Nucleon: how to design a nuclear powered car. (a steam engine powered by uranium fission like in a nuclear submarine)


The Evolution of Mobility
How the Future looked like in the Past

1959 GMC Firebird III

The Evolution of Mobility
How the Future looked like in the Past

1959 GMC Firebird III
with a gas turbine engine and a 10 hp gasoline engine

Features include:
• steering by a joystick
• Automatic Cruise Control
• antilock brake
• drag brakes
• road guidance on the „highway of the future”
The Evolution of Mobility
World passenger car production

The Evolution of Mobility
World passenger car production in 2015

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The Evolution of Mobility
World commercial vehicle production

The Evolution of Mobility
World commercial vehicle production in 2015
The Evolution of Mobility
New passenger car registrations in the EU by alternative fuel type

The Evolution of Mobility
New passenger car registrations in Germany by alternative fuel type
The Evolution of Mobility
Countries by volume of production since 1950

In 2015:

Source: by Masaqui - Own work, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=44668309

The Evolution of Mobility
Countries by shares of production since 1950

Source: by Masaqui - Own work, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=44668309
The Evolution of Mobility
The world’s biggest vehicle manufacturers by sales in 2015

Vehicle Production by Manufacturers in 2013

https://news.markets/shares/toyota-remains-the-worlds-biggest-car-company-9737/
The Evolution of Mobility
Vehicle Production in Germany today

The Evolution of Mobility
Stakeholders

- alternative drive trains
- driver assistance
- autonomous cars
- infotainment
- emerging markets
- new requirements
- manufacturers
- suppliers

- DAIMLER
- Volkswagen
- Audi
- BMW
- Continental
- Bosch
- Denso
- Magna
- Google
- Apple

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The Evolution of Mobility
Questions

How will mobility change in the next 20 years?
Would you like to drive a car in 20 years?
How will luxury cars look like in 20 years?
What does a customer expect from a luxury car in 20 years?

The Evolution of Mobility
Changes in Society in 2030

Social relations:
more families with no or one child, more cooperation
more singles... more long-distance relationships
less privacy
more individual responsibility
The Evolution of Mobility
Changes in Society in 2030

Work:
fusion of work and free time, more cooperation on resources, more virtual meetings, more telework, more flexibility, car and train are used as a mobile office.

Consumption:
More individual services, more location based services, more informed consumers, design is important, less ownership, more availability: sharing, leasing, lending, more updates and modular products Reduce, re-use, recycle, repair More „good“ products, „green“ and „fair trade“ consumption
Mobility: More time on the road, more comfort, more environment friendly mobility, more connected cars, intelligent transport systems, local public transport as a backbone of mobility, fusion of cars and local public transport, sharing, leasing of cars, more entertainment and services.

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Megacities

Source: https://en.wikipedia.org/wiki/Megacity
The Evolution of Mobility
More Megacities in the Future

source: auto, motor & sport: Mobilitätsreport – wie fahren wir in der Zukunft?

The Evolution of Mobility
Energy and Mobility

Petrol prices in the summer of 2009

source: Petrol prices in the summer of 2009
The Evolution of Mobility
Energy and Mobility

Top Consuming Countries, 1960-2006

Source: http://en.wikipedia.org/wiki/Peak_oil

The Evolution of Mobility
Predicting Peak Oil

Quelle: http://en.wikipedia.org/wiki/Peak_oil
The Evolution of Mobility
Reduction of CO2-Emissions in the EU

Drive into the inner city
- Local public transport dominates
- „use instead of own“ a car
- „clean“ small cars
- Integration of cars and local public transport

longer distances, small towns
- Cars are still the means of transport.
- Poor local public transport.
- All segments of cars are still used.

All segments of cars will still be asked for. In the inner city: „clean cars“

source: auto.motor & sport, Mobilitätsreport – wie fahren wir der Zukunft?

The Evolution of Mobility
Cars as a Means of Transport in the Future

07.11.2016