

# How we're making mobility lighter, more efficient, and better

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# Sustainability drives the Resource Efficiency megatrend



Innovations by Evonik provide answers on the topic of resource efficiency

- **Evonik offers solutions**

- For resource-efficient mobility
- For ecologically sound and durable coatings and paints
- For climate-friendly living
- For the efficient use of renewable energies



# The Resource Efficiency Segment in facts and figures



## Figures\* (2014)

Sales:	€4.0 billion
Adj. EBITDA	€836 million
Adj. EBITDA margin	20.7%
Employees	approx. 7,800
Sites worldwide	approx. 90
R&D centers worldwide	14
R&D employees	650
R&D spending	approx. €170 million

\*Restated figures to reflect the new segment structure in effect from Jan 1, 2015



# Resource Efficiency Segment

## Proximity to customers and innovation



### Proximity to customers and strategic partnerships

- Market-oriented business structure
- Customer and market-driven innovation projects
- Expertise in global technical sales/service

### Application know-how & innovative capability

- Broad spectrum of application technology know-how
- Innovation capability for new products, applications, and production processes
- Bundled R&D platform

### Technological expertise

- Inorganic particle design
- Interfaces
- Coatings & adhesives
- High-performance polymers
- Catalysis



# Innovation topics in the Resource Efficiency Segment



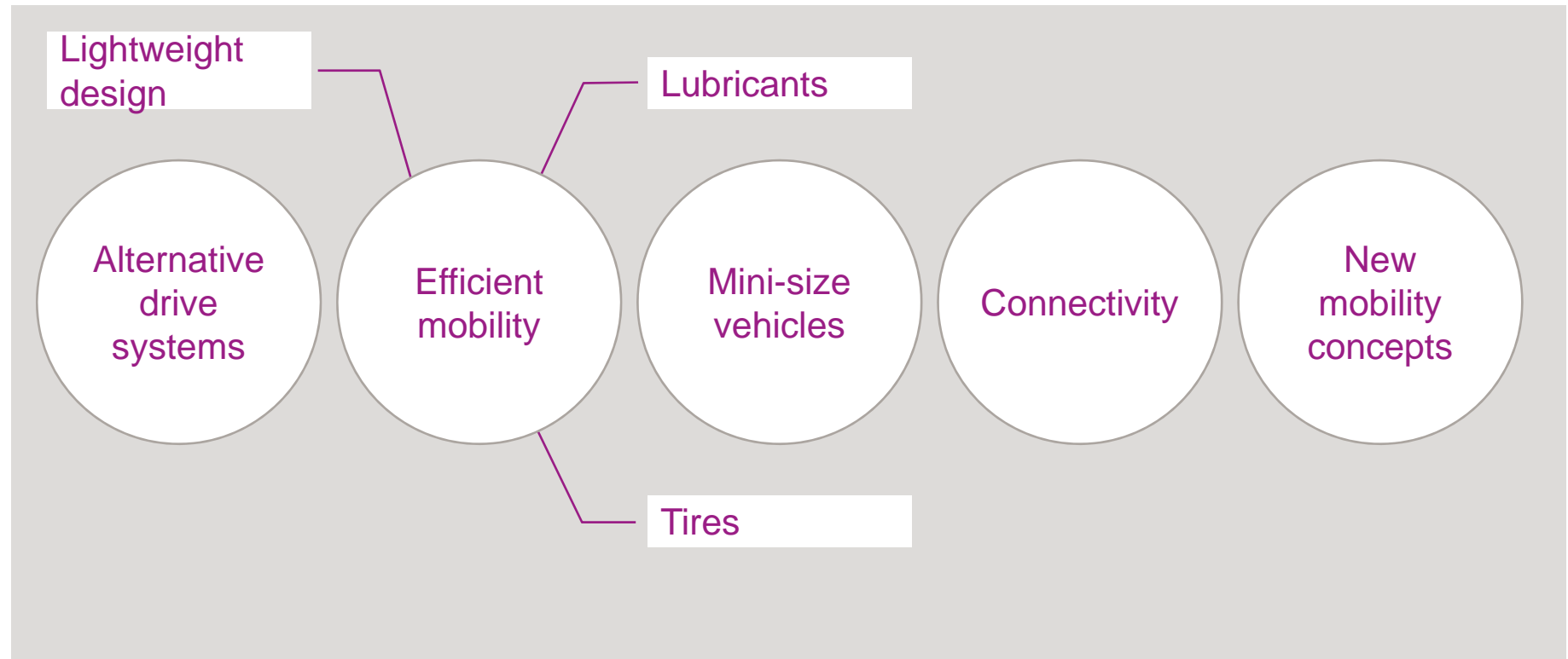
## We research

- To make efficient use of renewable energy
- To utilize renewable resources
- To save energy in our processes
- To help our customers save energy in their processes
- To help consumers save energy

Our topic today: Resource-efficient mobility

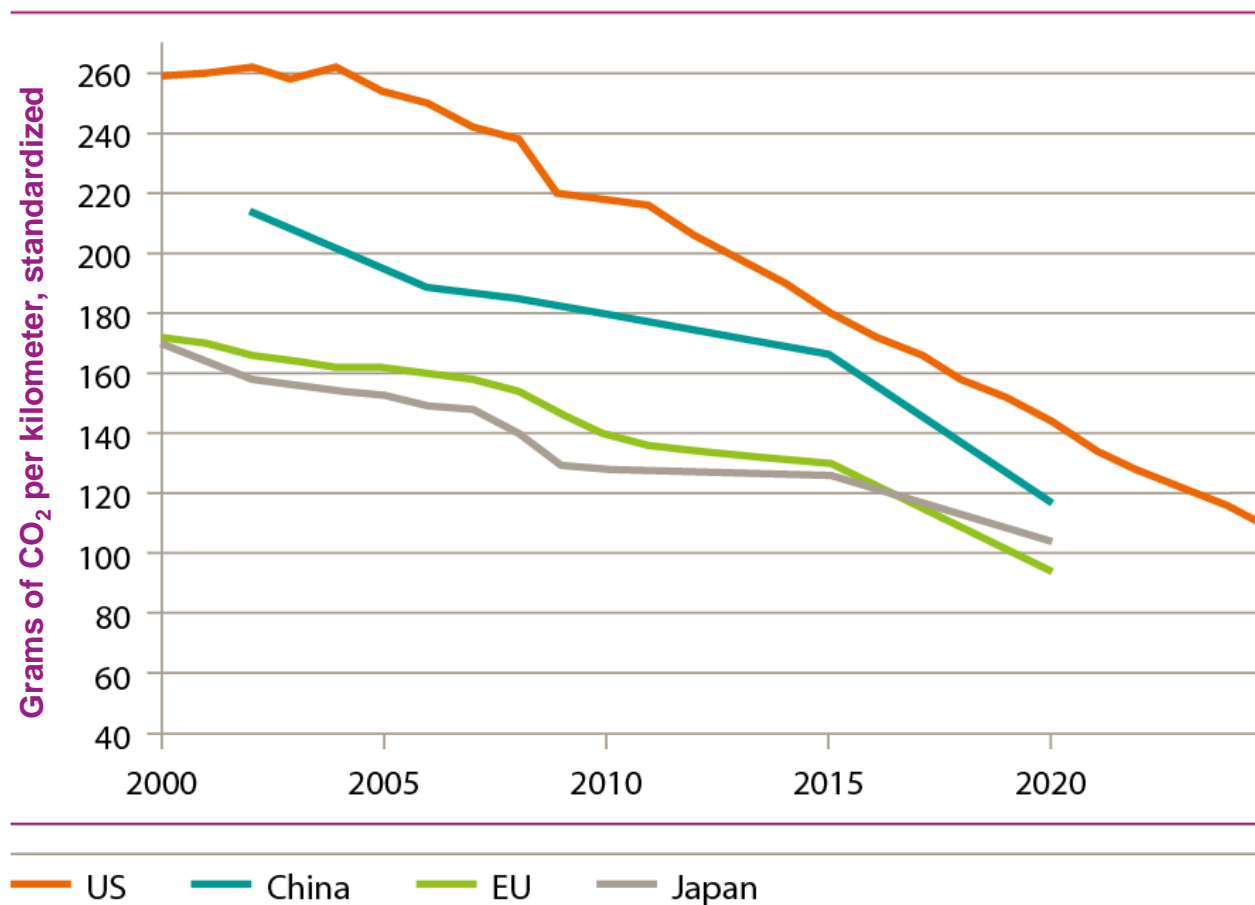


# Selected trends in the automotive market



# CO<sub>2</sub> reduction goals for cars

Global objectives for reducing the average fleet consumption for cars



Global comparison of fuel economy in light duty vehicles/GHG emission standard, ICCT, June 2012

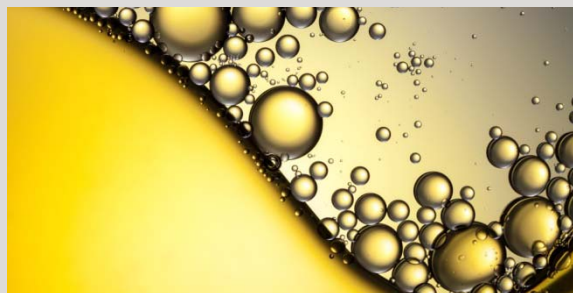
# Our levers for efficient mobility



Lightweight design



Lubricants



Tires





# Innovative answers from Evonik



## Lightweight design

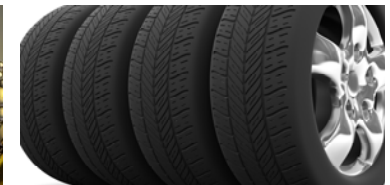
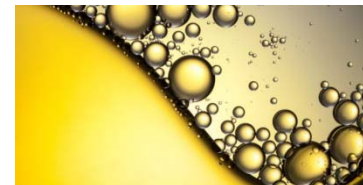
- New technology designed to considerably reduce the production costs of composite materials
- Market launch planned for late 2018

## Lubricant additives

- New product excels at controlling viscosity
- Offers additional wear protection
- Market launch in the fall 2015

## Low rolling resistance tires

- Silica/silane system for tires with low rolling resistance will be optimized further
- VOC-free solutions
- Focus on truck and bus tires



# Innovative answers from Evonik



## Lightweight design

A weight reduction of 100 kg in a vehicle saves up to 0.5 liters of fuel over 100 kilometers.

0.5L

## Lubricant additives

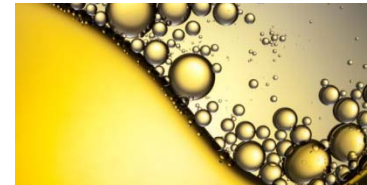
Lubricant additives reduce automotive fuel consumption by up to 4%.

4%

## Low rolling resistance tires

Silica/silane reinforcement systems in automotive tires help to lower the fuel consumption by up to 8%.

8%





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