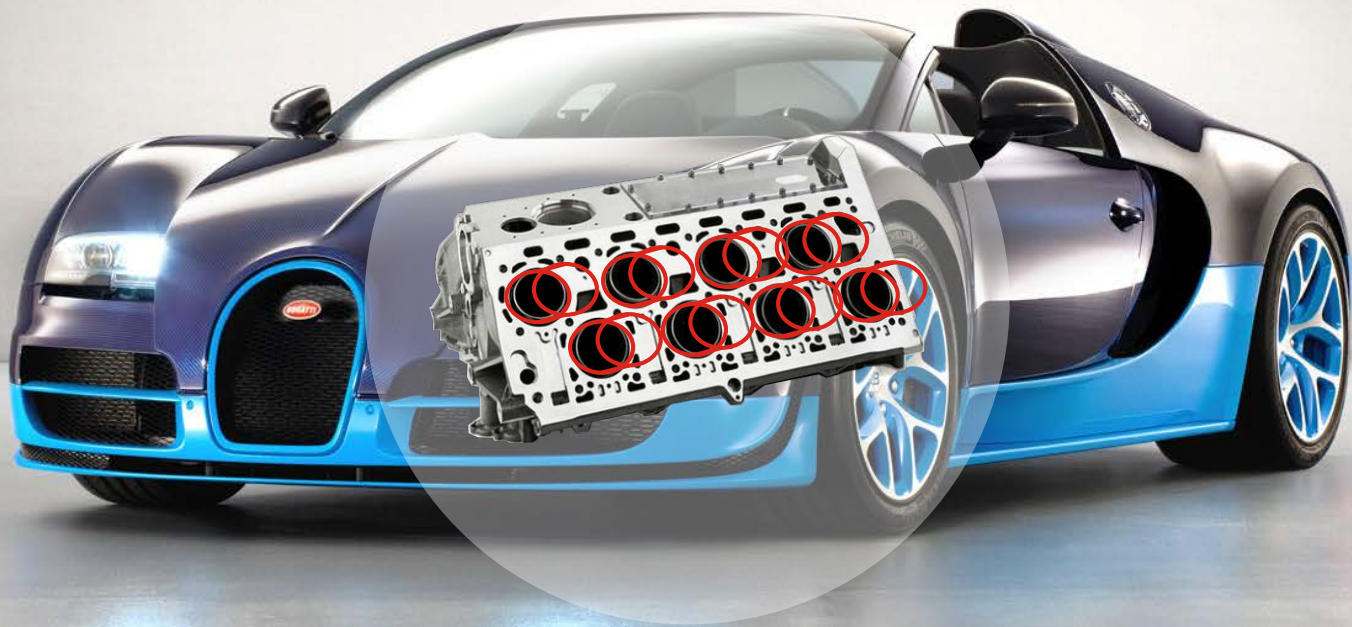


# A machine tool builder's role in a dynamic automotive world

CAR-MBS, July 31, 2017

Dr. Sebastian Schöning





## Engineering Solutions



**We are...**

... experts for precision and functional surfaces

## Machine Systems



**We are...**

... a full service provider with integrated solutions

## Total Customer Care



**We are...**

... globally present with appr. 800 employees

## Digital Solutions



**We are...**

... well prepared for Industry 4.0

## *Corporate Statement*

We permanently strive to offer to our customers

- best solutions, delivered world-wide
- highly mature and tailor-made technologies
- ideal cost and resource management
- full extensive service partnerships



Any right of disposal remains with us. The use of the content for the making of corresponding articles is only permitted with our express approval in writing. As the document contains patentable elements, we reserve all rights for the granting of any kind of patent.

# Automotive industry in motion – Transformation speed higher than ever before

*Megatrends with impact on car makers and production system suppliers*

## Autonomous driving



## Digitalization



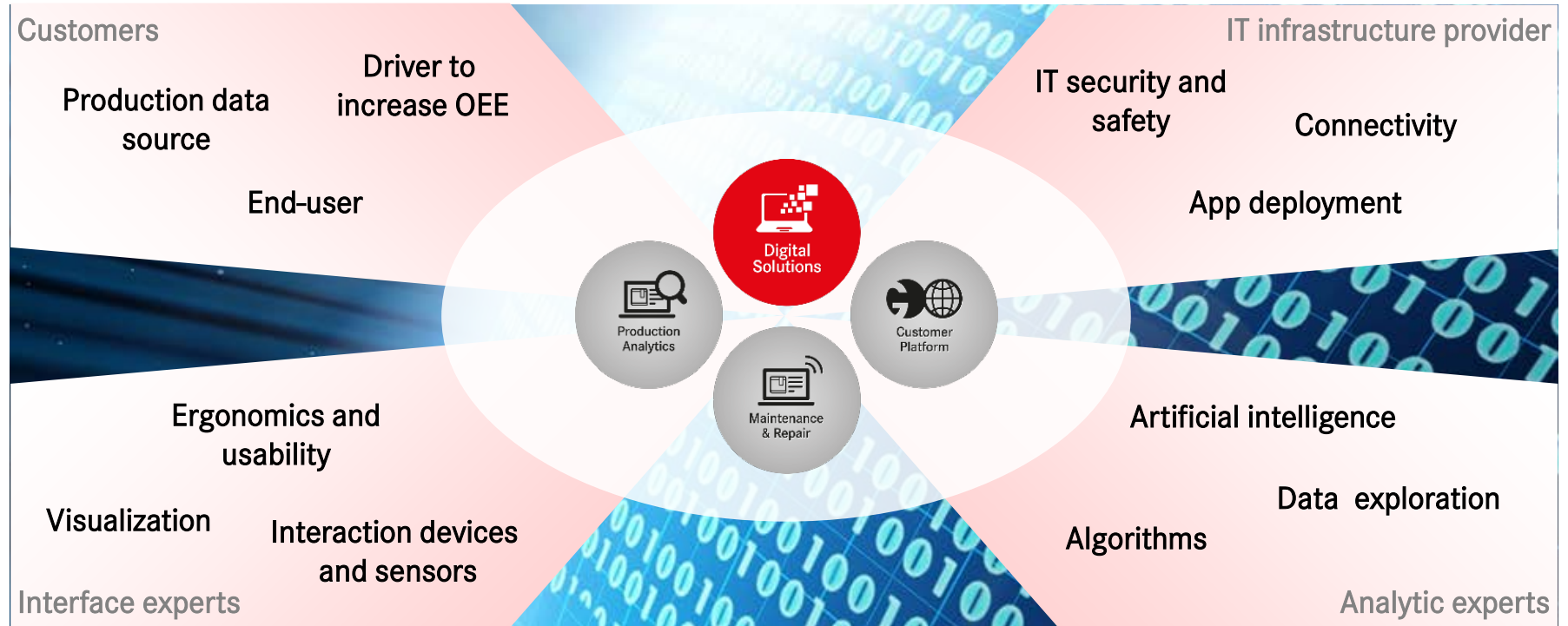
## Fleet fuel efficiency



Any right of disposal remains with us. The use of the content for the making of corresponding articles is only permitted with our express approval in writing. As the document contains patentable elements, we reserve all rights for the granting of any kind of patent.

# Sharing expertise means sharing success in shorter time

*Gehring's partner network for Digital Solutions*



Any right of disposal remains with us. The use of the content for the making of corresponding articles is only permitted with our express approval in writing. As the document contains patentable elements, we reserve all rights for the granting of any kind of patent.

# Automotive industry in motion – Transformation speed higher than ever before

*Megatrends with impact on car makers and production system suppliers*

## Autonomous driving



## Digitalization



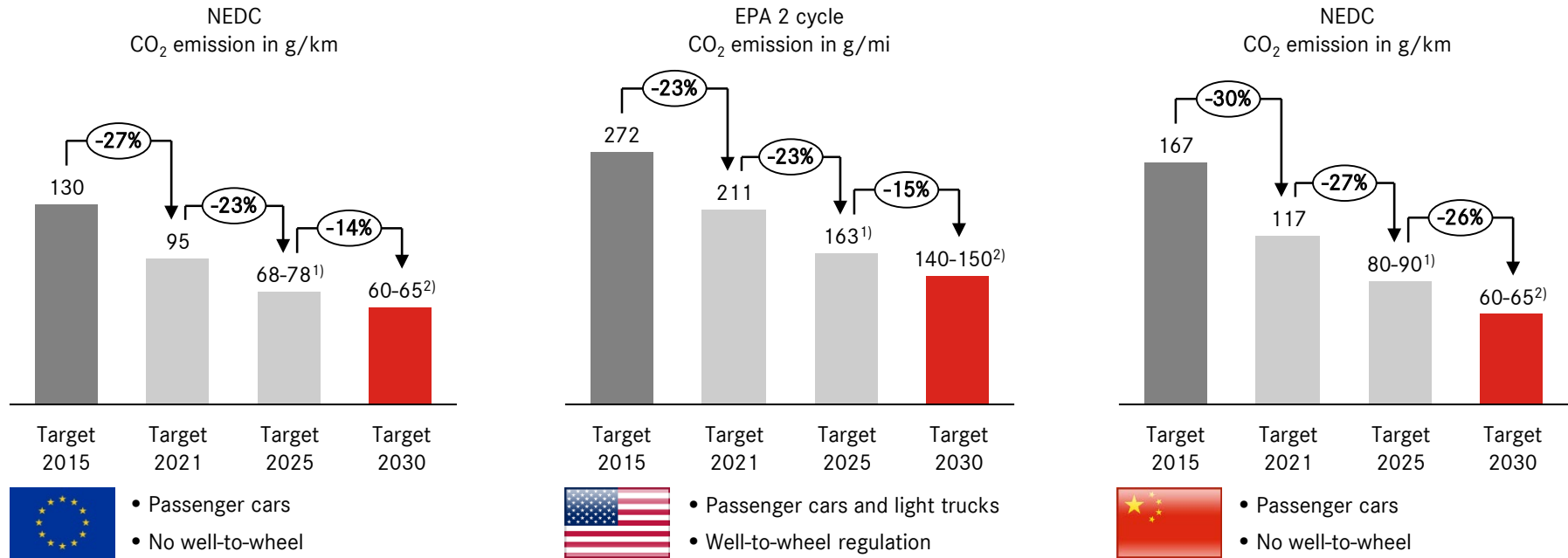
## Fleet fuel efficiency



Any right of disposal remains with us. The use of the content for the making of corresponding articles is only permitted with our express approval in writing. As the document contains patentable elements, we reserve all rights for the granting of any kind of patent.

# CO<sub>2</sub> emission regulations strongly push OEMs towards innovations for combustion engines

## Global situation



<sup>1)</sup> Proposed target under review

<sup>2)</sup> Scenario, for EU based on GHG reduction targets for the transport sector by European Commission, for US 2 % annual reduction assumed after 2025, China is expected to recover EU targets

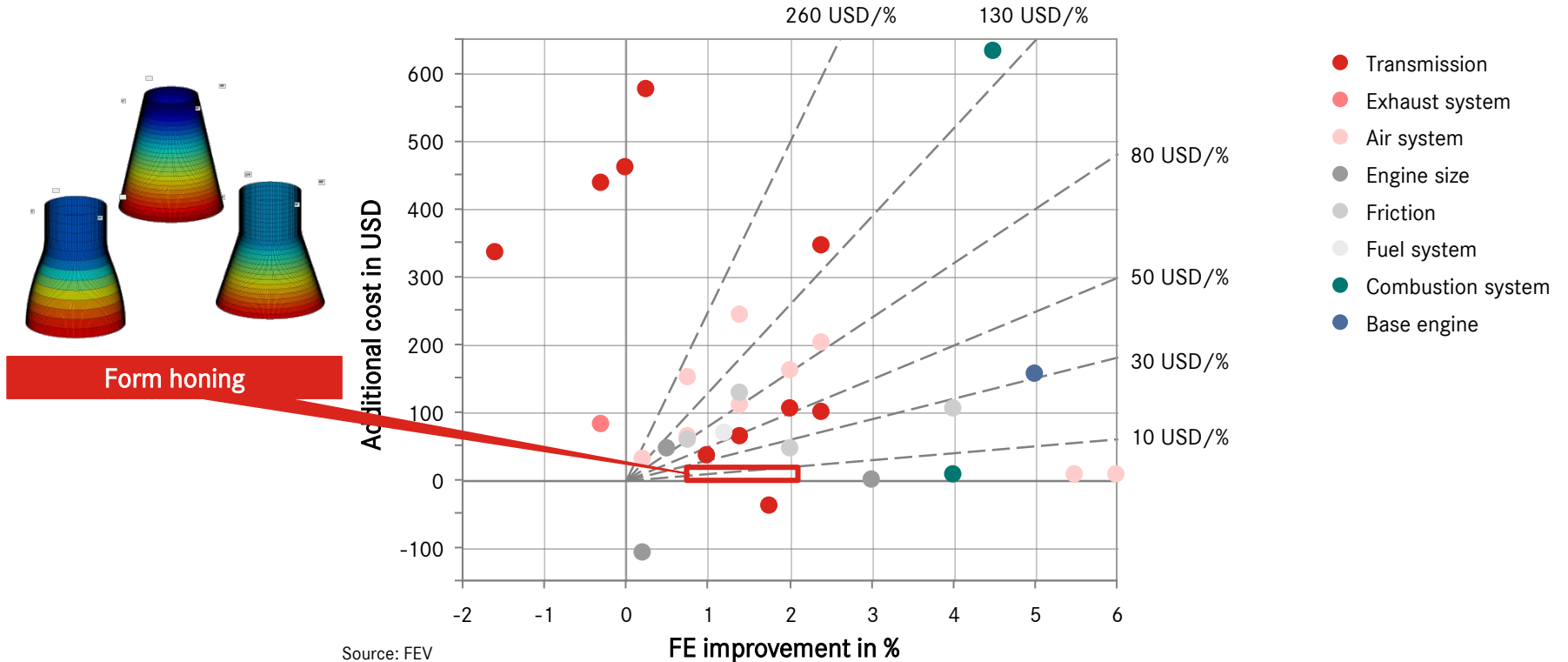
Values for EU and CN are based on NEDCV to gain compatibility, for CN figures are converted from l/km  
Source: FEV, using sources ICCT, European Commission, Bosch, ACEA and FEV

Any right of disposal remains with us. The use of the content for the making of corresponding articles is only permitted with our express approval in writing. As the document contains patentable elements, we reserve all rights for the granting of any kind of patent.



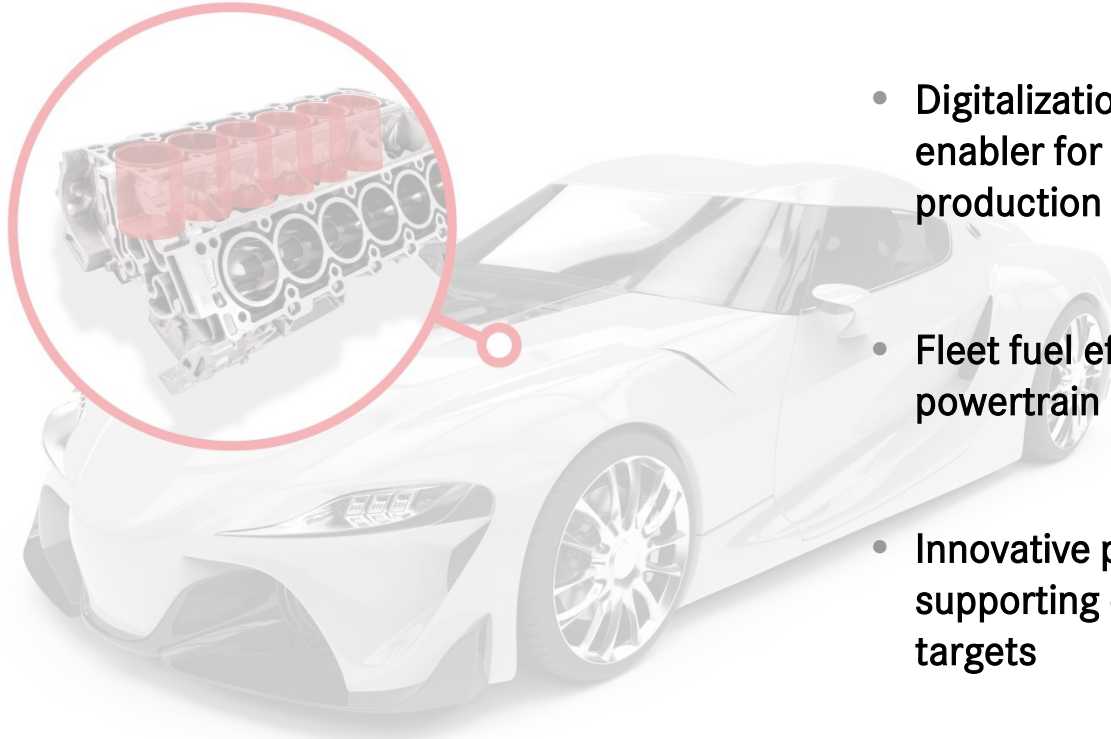
# Form honing – an example for economical engine innovations

## *Environmental and economic impact of different engine technologies*



Source: FEV

Any right of disposal remains with us. The use of the content for the making of corresponding articles is only permitted with our express approval in writing. As the document contains patentable elements, we reserve all rights for the granting of any kind of patent.



- **Digitalization in automotive industry is a key enabler for both – future products and future production**
- **Fleet fuel efficiency must be based on a smart powertrain mix – including ICE!**
- **Innovative production technology is supporting element for reaching emission targets**



**Dr. Sebastian Schöning**  
**CEO**

Gehring Technologies Holding GmbH  
Gehringstr. 28  
73760 Ostfildern

Phone: +49 (711) 3405 440  
E-mail: [sebastian.schoening@gehring.de](mailto:sebastian.schoening@gehring.de)  
Web: [www.gehring.de](http://www.gehring.de)