

5th

SCT2017

5th International Conference on Steels in Cars and Trucks
June 18 – 22, 2017 | Noordwijkerhoud, Amsterdam, NL



Global challenges – Regional perspectives

Dr.-Ing. Peter Dahlmann

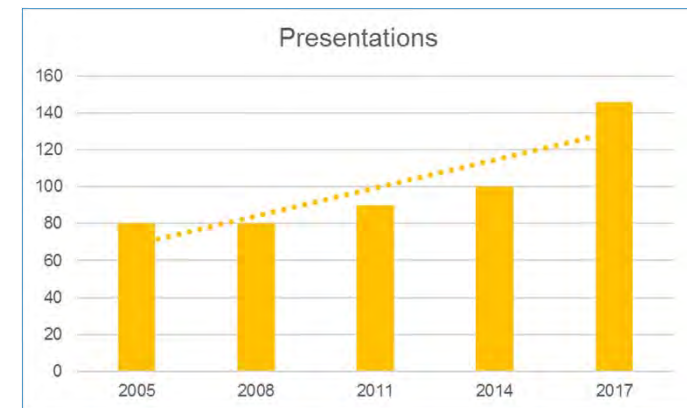
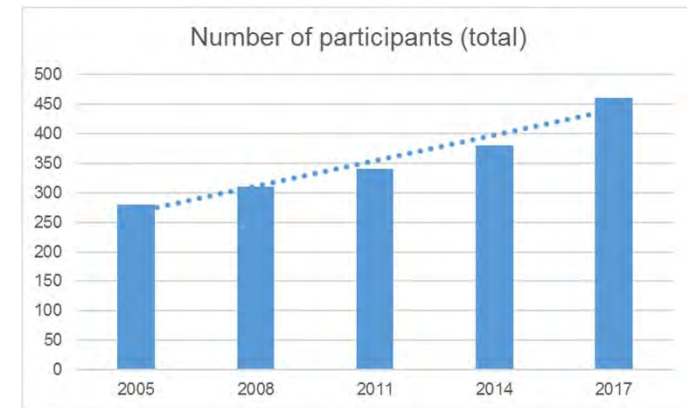
Executive Member of the Managing Board
Steel Institute VDEh



12 years SCT – a success story

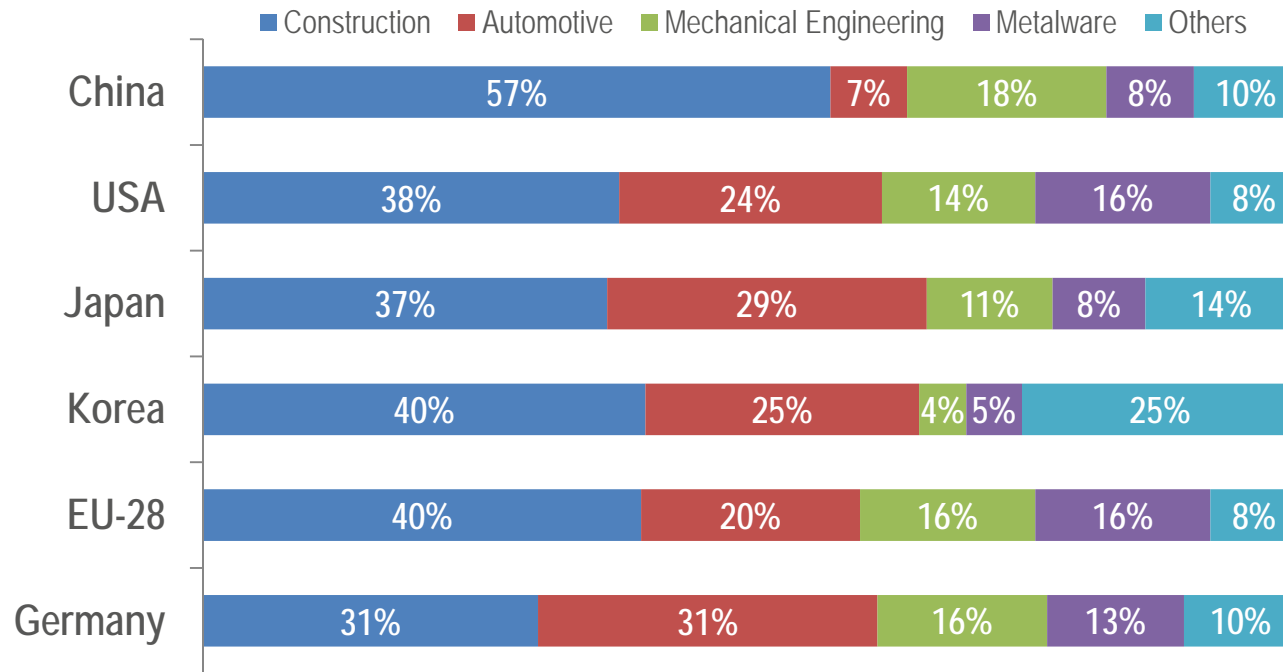
- Bringing the automotive, supplier und steel industries together
- Future trends in steel development, processing technologies and applications

	SCT2005, 05 to 10 June, Wiesbaden, Germany
	SCT 2008, 01 to 05 June, Wiesbaden, Germany
	SCT 2011, 05 to 09 June, Salzburg, Austria
	SCT 2014, 15 to 19 June, Braunschweig, Germany
	SCT 2017, 18 to 22 June, Amsterdam – Noordwijkerhoud, The Netherlands



Structure of steel demand: focus on automotive and machinery

Sector shares in steel consumption in major countries (2016)

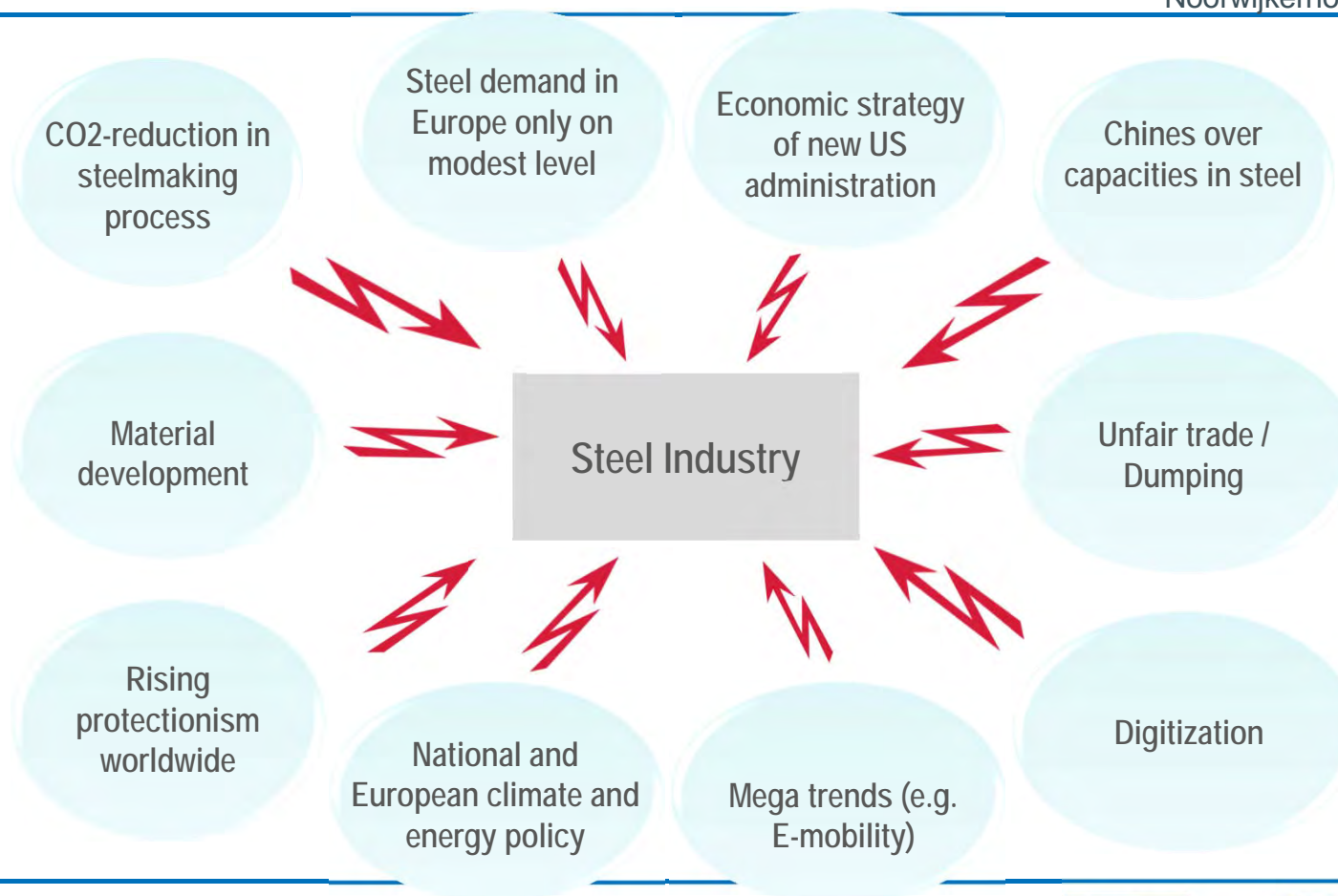


Source: Worldsteel

Central challenges for German and European steel industry

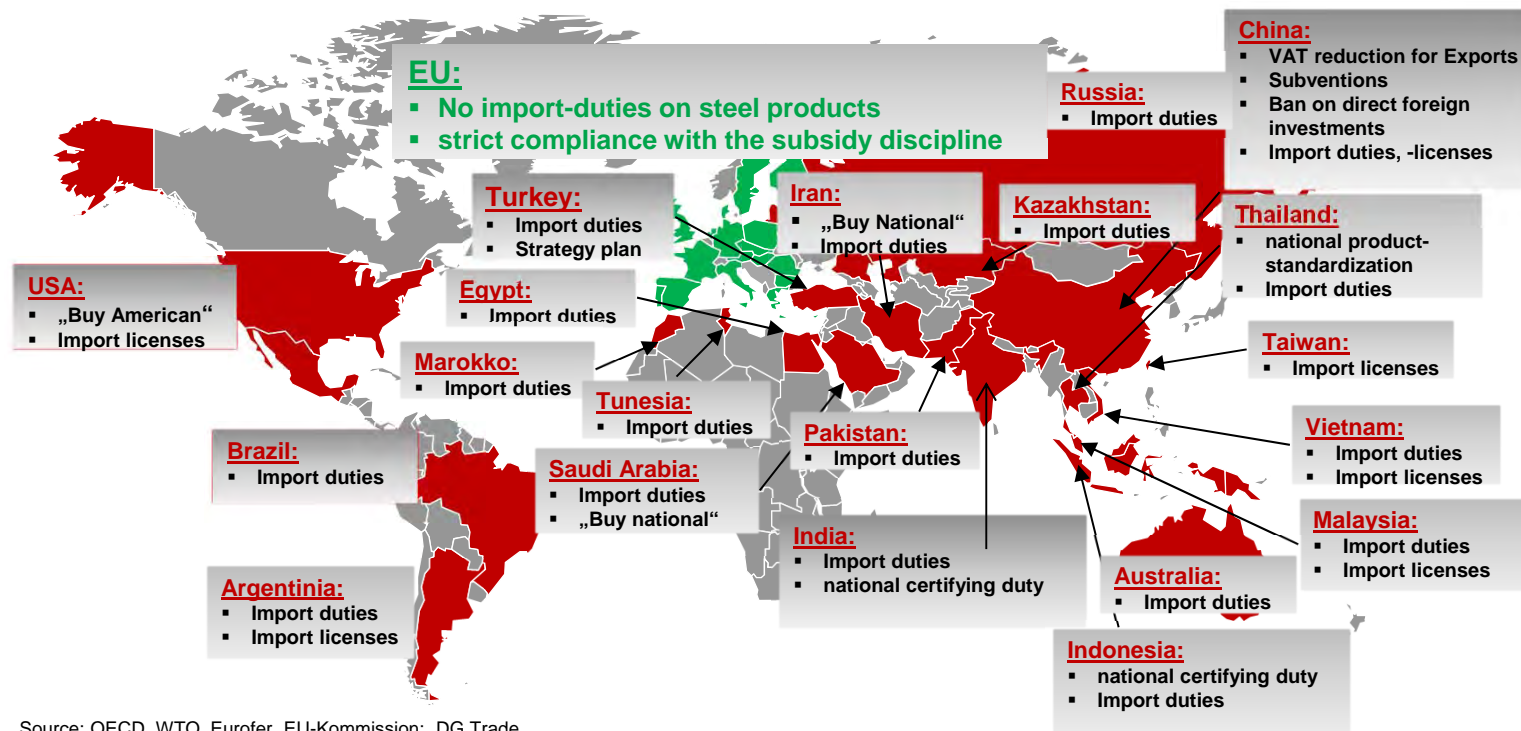
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Protectionism in the steel sector growing worldwide

Examples for tariff and non-tariff trade restrictions



Source: OECD, WTO, Eurofer, EU-Kommission: DG Trade

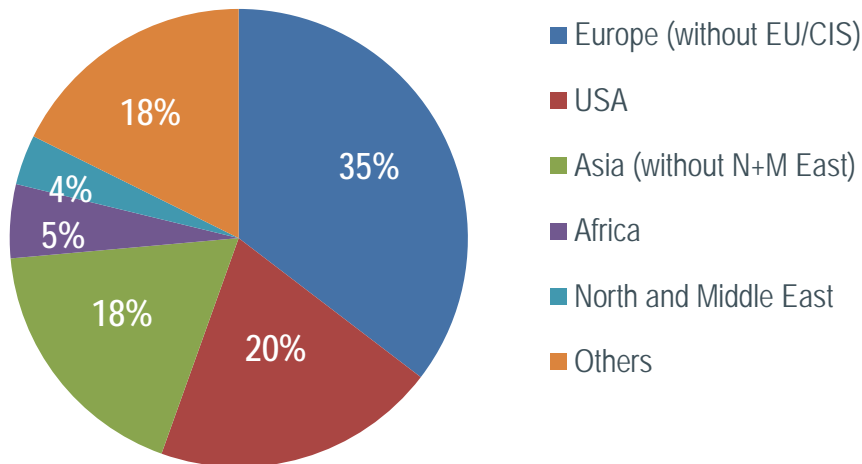
New US trade policy targeting steel industry



Importance of German and EU28 steel exports to the US

Germany: Export Rolled Steel
(2016, Share in Percent)

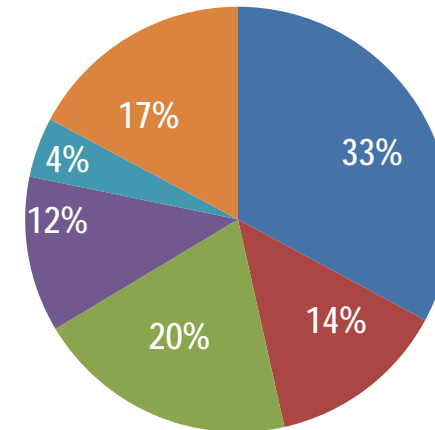
2016*): 4,1 Mill. t in countries outside of the EU (Third Countries)



*Jan-Nov annualized

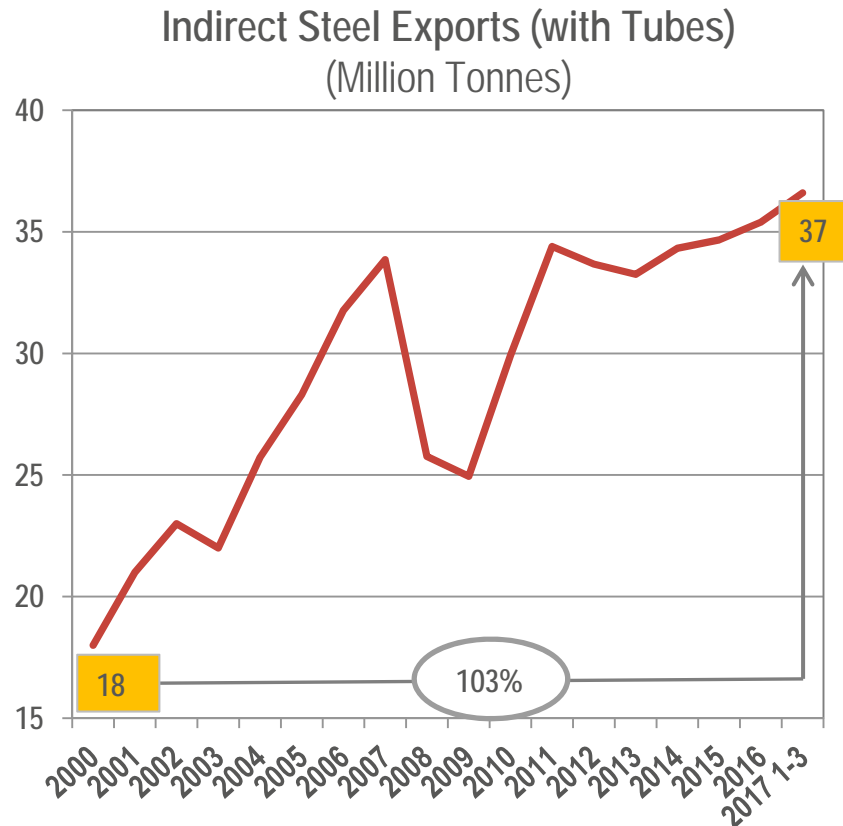
EU-28: Export Rolled Steel
(2016, Share in Percent)

2016: 24 Mill. t

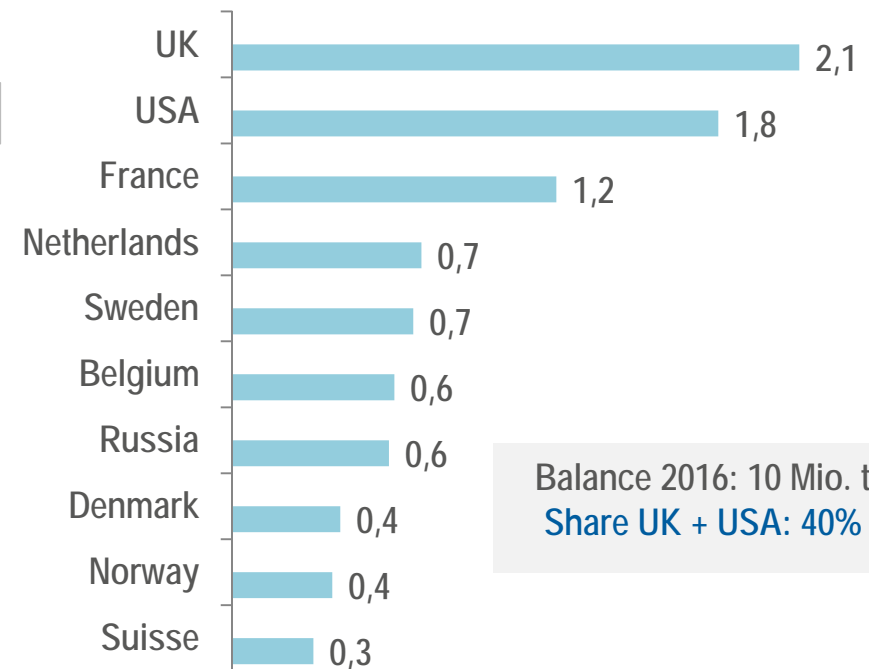


The USA are for the steel industry in Germany the most important market.

Indirect export key for German steel demand

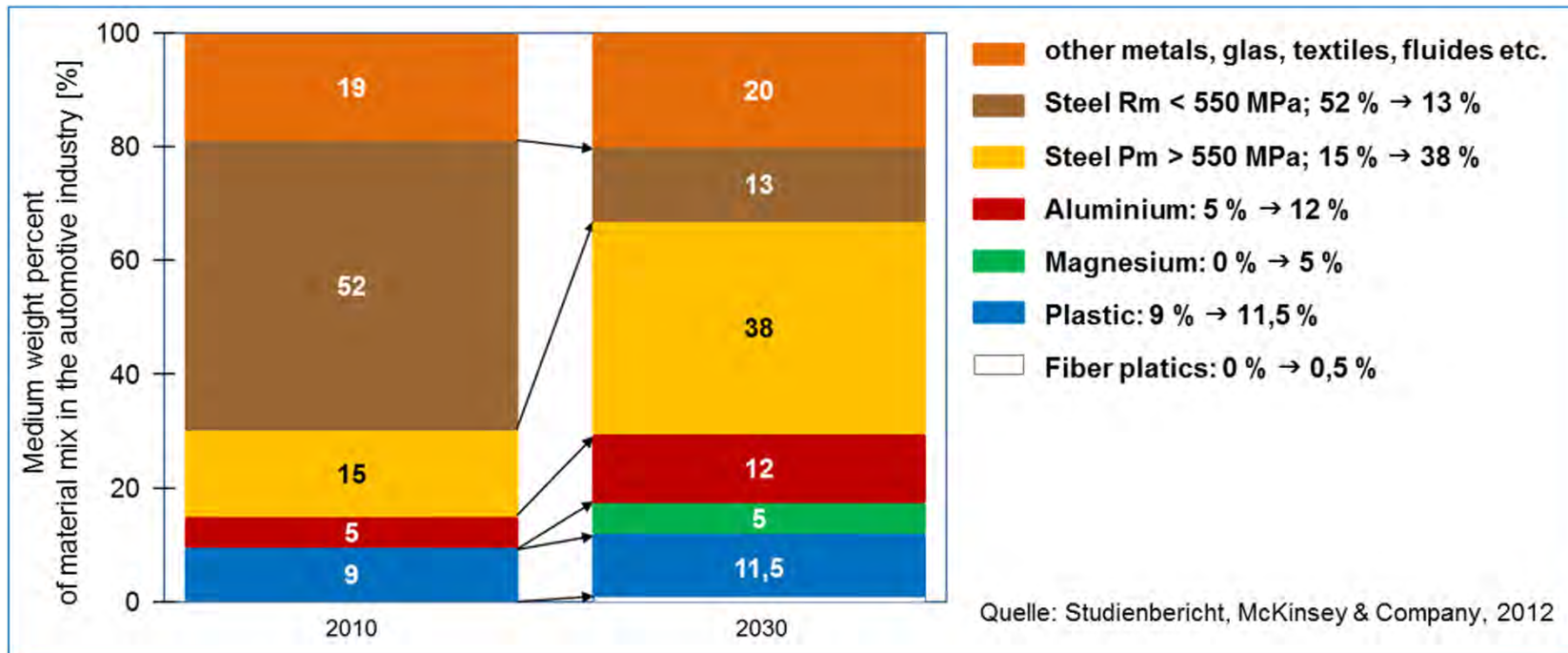


Germany: Indirect **Net-Steel Exports**
(Million Tonnes, Rolled Steel Weight)



Balance 2016: 10 Mio. t
Share UK + USA: 40%

Use of materials in automobile construction today and in the future

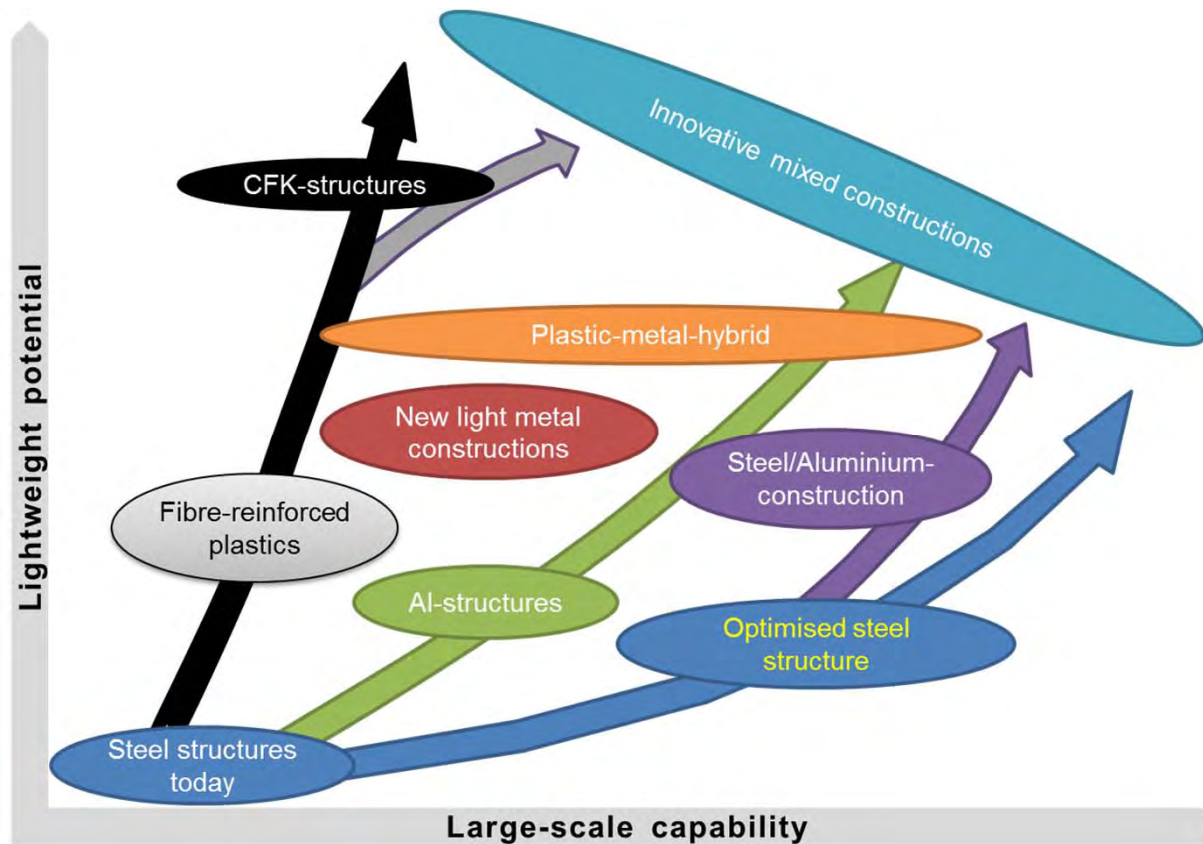


„Audi drastically increasing steel usage in 2018 A8 model“

The 2018 Audi A8 will be made up of 40.5 % steel, a drastic change from the all-aluminum body originally developed in 1994 ...

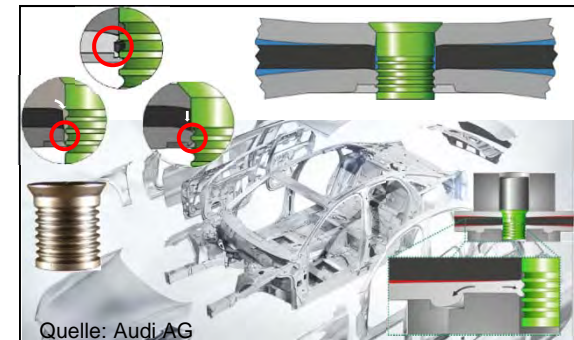
Steel Business Briefing, Friday, 12 Mai 2017

Lightweight construction concepts



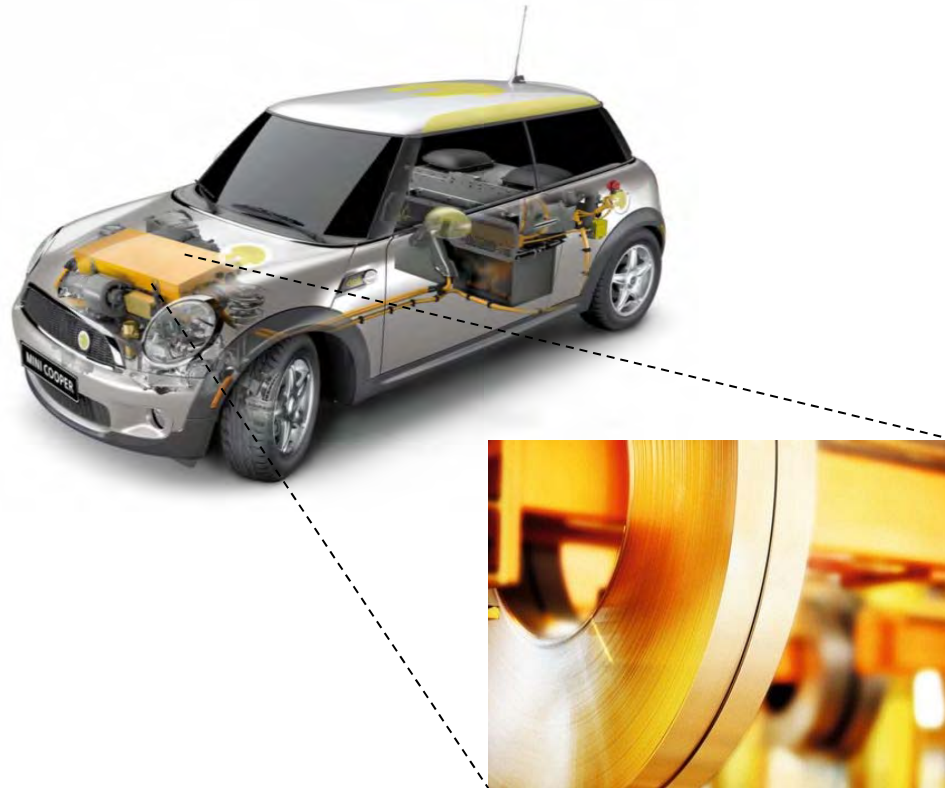
Source VW: >>Automobil Industrie<< Leichtbau-Gipfel 2012, Würzburg 2012

New or customized joining technologies are needed



- Successful co-operation of various materials
- Solution to meet the requirements of the construction
- Hybrid design: „The right material in the right place.“
- Reduced material consumption
➔ Resource conservation
- Weight savings ➔ CO₂-avoidance

Steel in powerful drives for e-mobiles

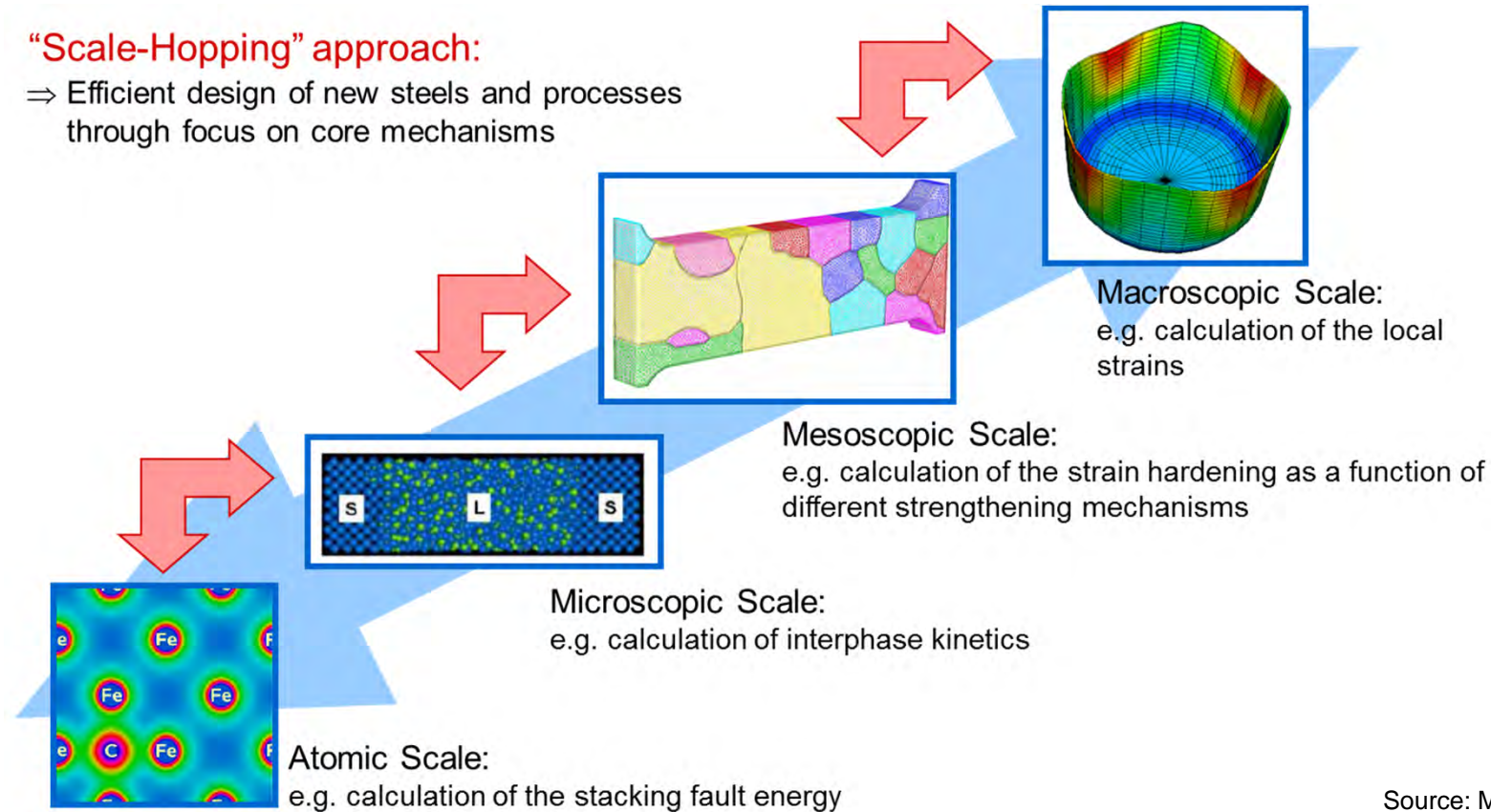


- Electrical sheets of steel belong to the key components of electric motors and determine essentially their efficiency.
- New steel alloys reduce the losses in the motor during the re-magnetization by up to 30% and thus increase the efficiency especially at high speeds.
- These non-grain-oriented electrical steels play a key role for full-electric vehicle drives.

Modelling on different scales are used selectively

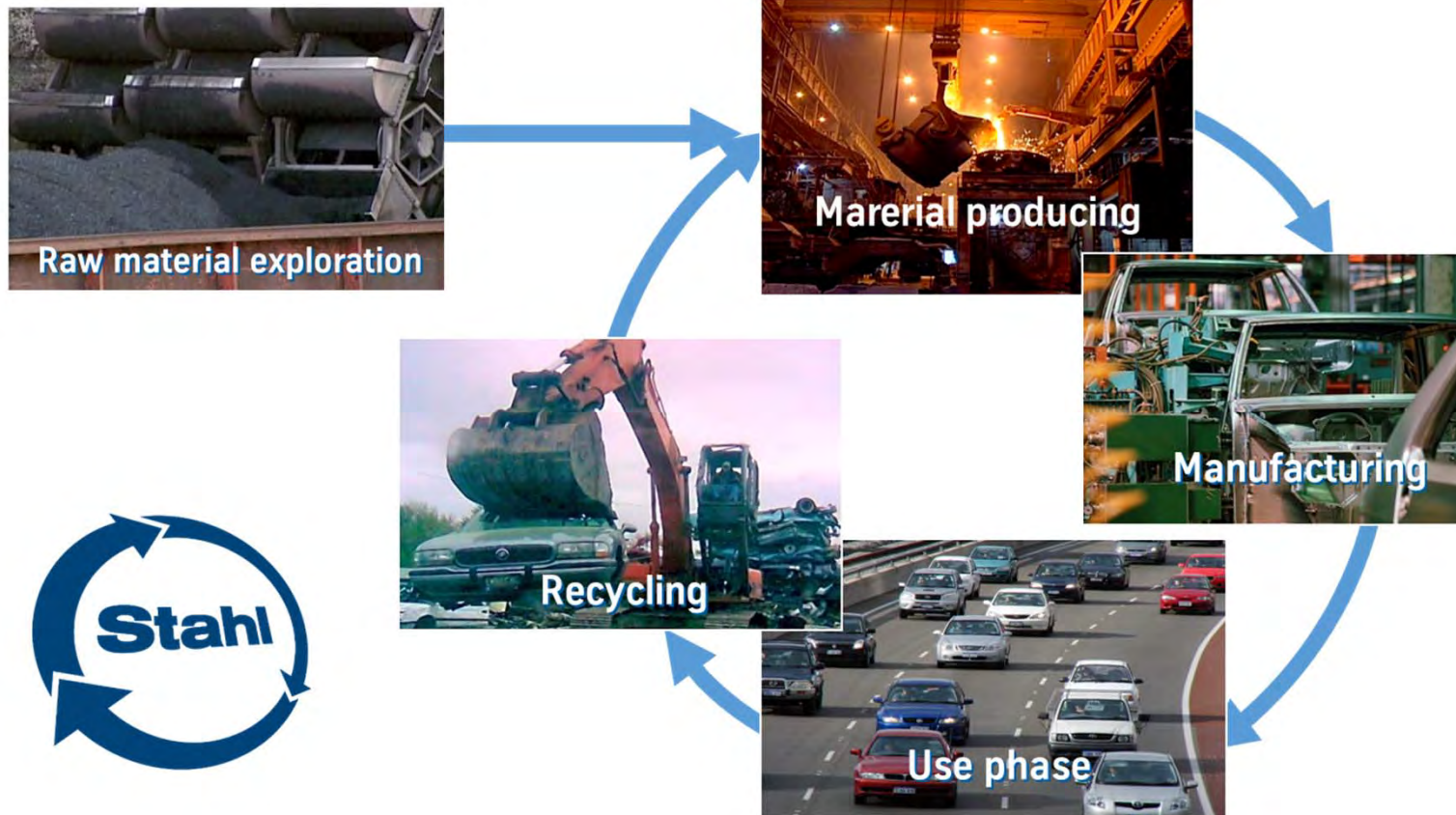
“Scale-Hopping” approach:

⇒ Efficient design of new steels and processes through focus on core mechanisms



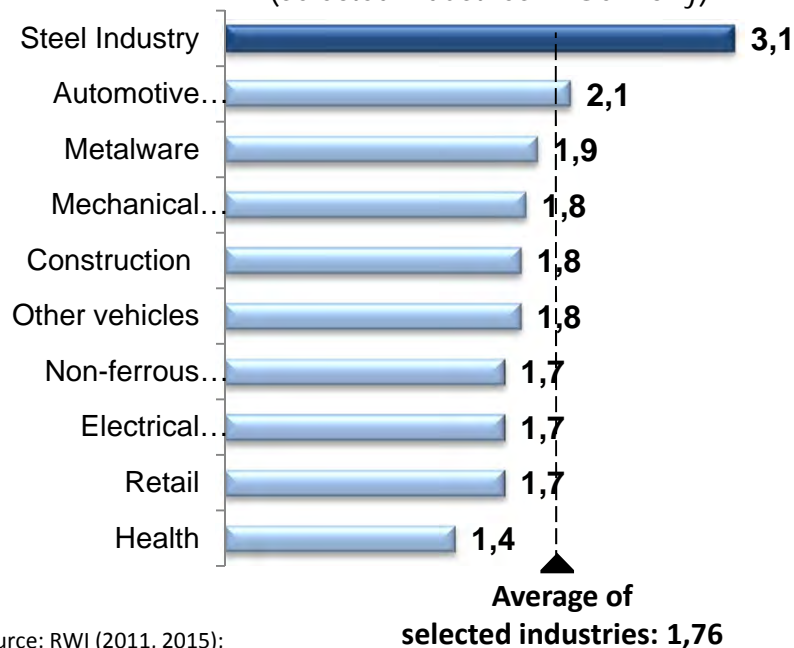
Source: MPI for Iron Research

Steel – multi recycling champion



High economic leverage due to networking with suppliers and service providers

Multiplier-Effect of the Steel Industry
(selected industries in Germany)



Source: RWI (2011, 2015);

- The multiplier is a measure for the leverage of an industry.
- An additional 1 euro demand for steel products is accompanied by another demand of € 3.1, of which 1 euro is allocated to the steel industry itself and € 2.1 to other suppliers.
- The powerful leverage arises from long value chains in the German economic area (transport, industry-related services, etc.).

Thanks to all supporters

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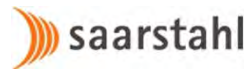
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