



Quelle: WS

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# Decarbonisation of transport: Challenges for modal-shift, infrastructure and innovative vehicles

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# Agenda

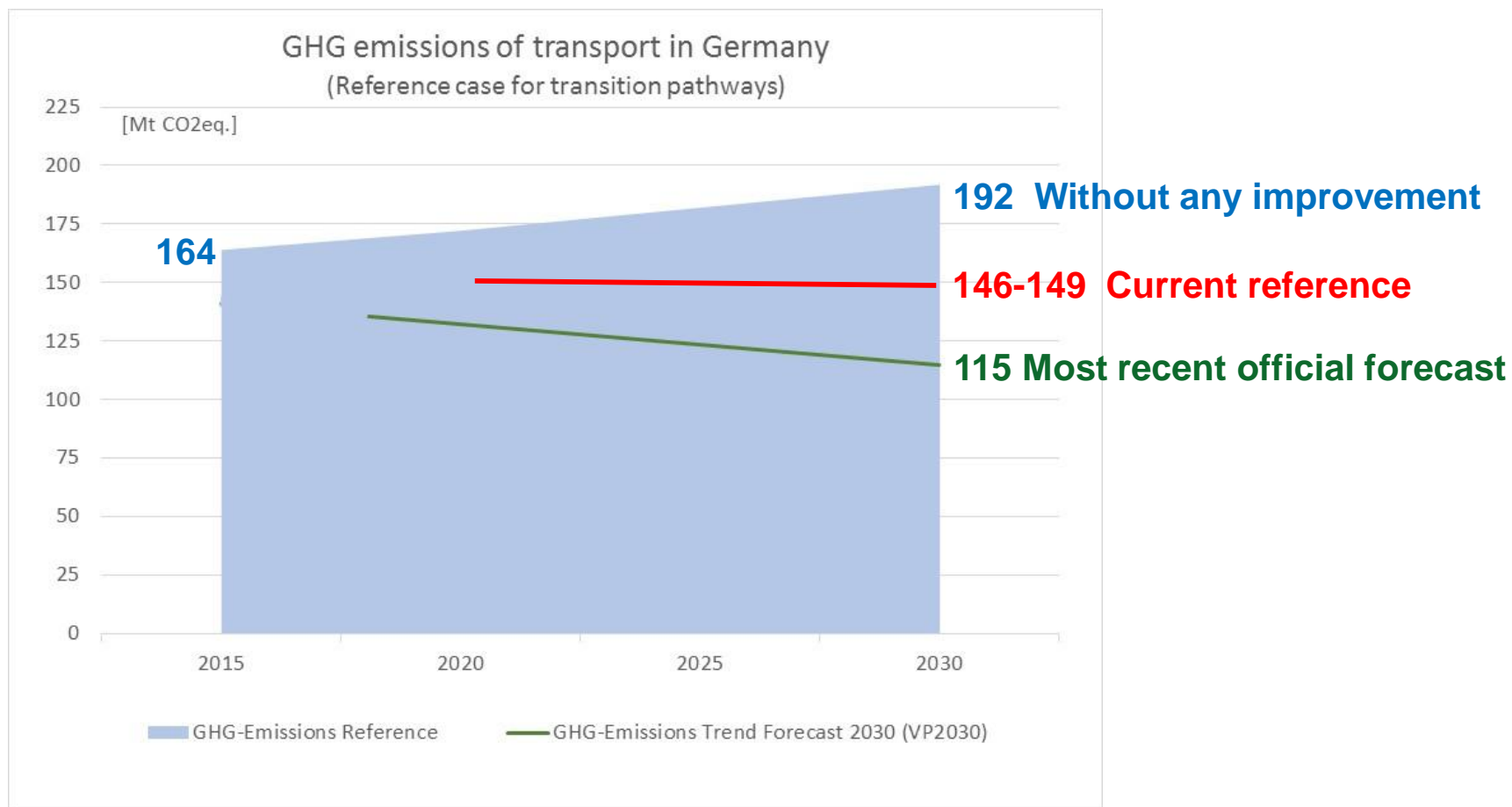
- § Strategy for decarbonisation of transport
- § CO2-standards for cars – a push for industrial transition of the automotive industry



Quelle: WS, Fotolia

# GHG emissions of transport without improvements

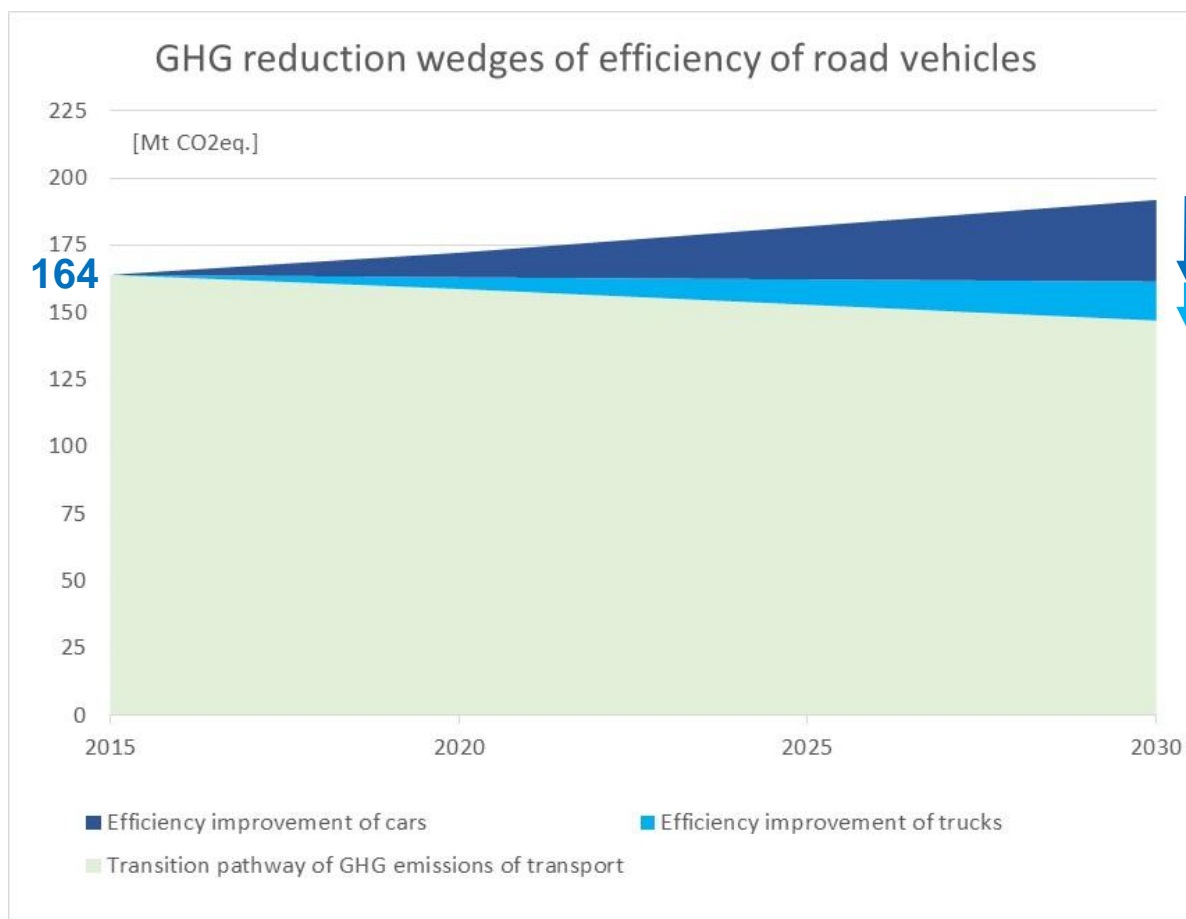
## Do-nothing scenario



Source: Schade, W., MKS Jahreskonferenz, Berlin 29.Mai 2017

# Mitigation Wedges 1+2:

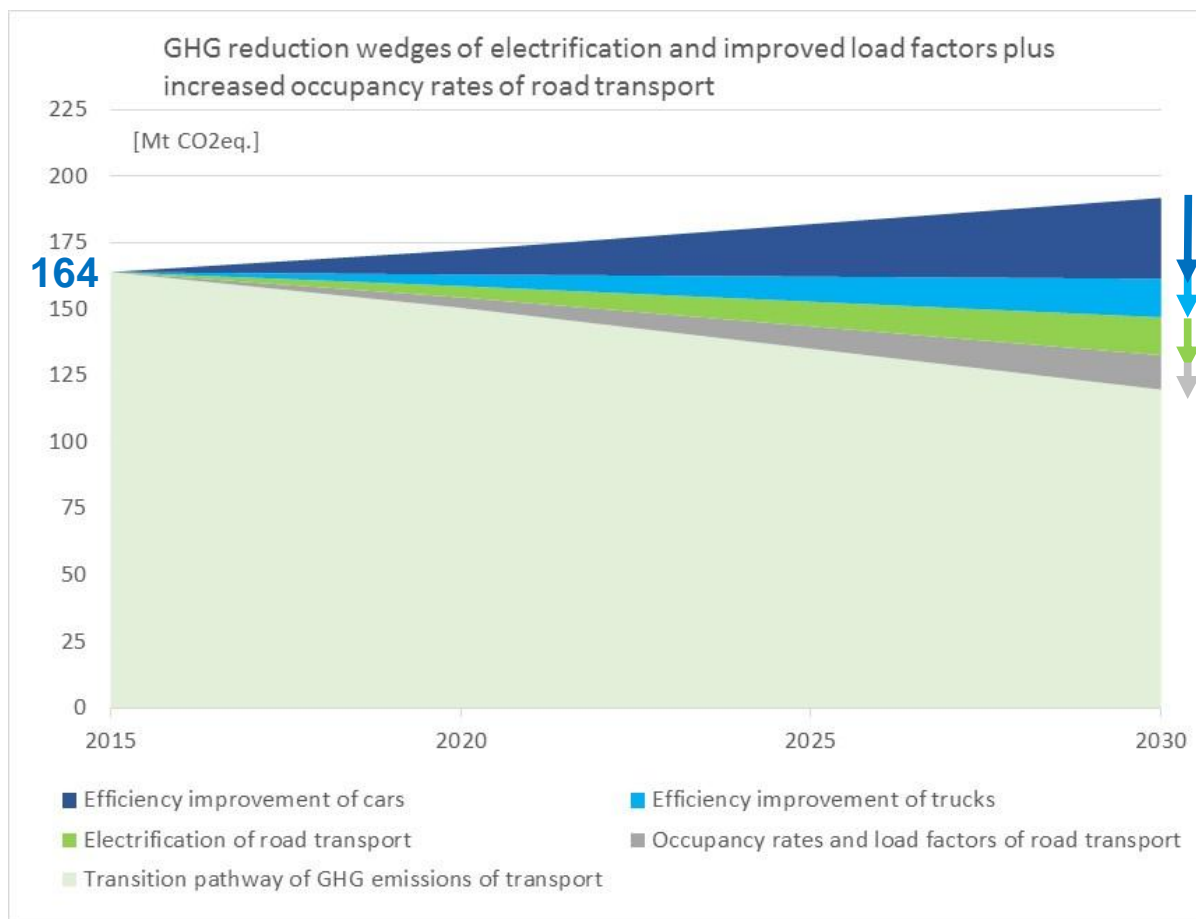
## Efficiency improvements of road transport



Source: Schade, W., MKS Jahreskonferenz, Berlin 29.Mai 2017

# Mitigation Wedges 3+4:

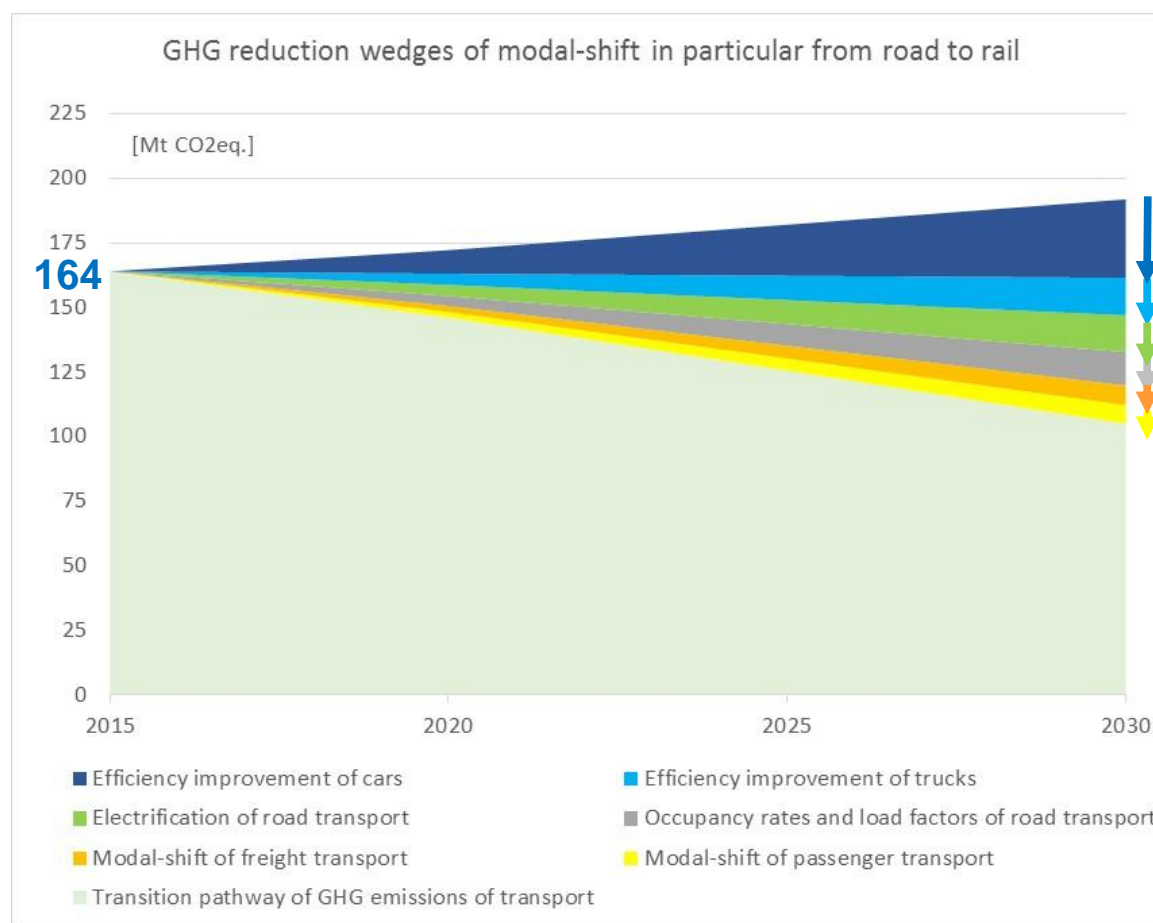
## Electrification and load factors of road transport



Source: Schade, W., MKS Jahreskonferenz, Berlin 29.Mai 2017

# Mitigation Wedges 5+6:

## Modal-shift to environmental friendly modes



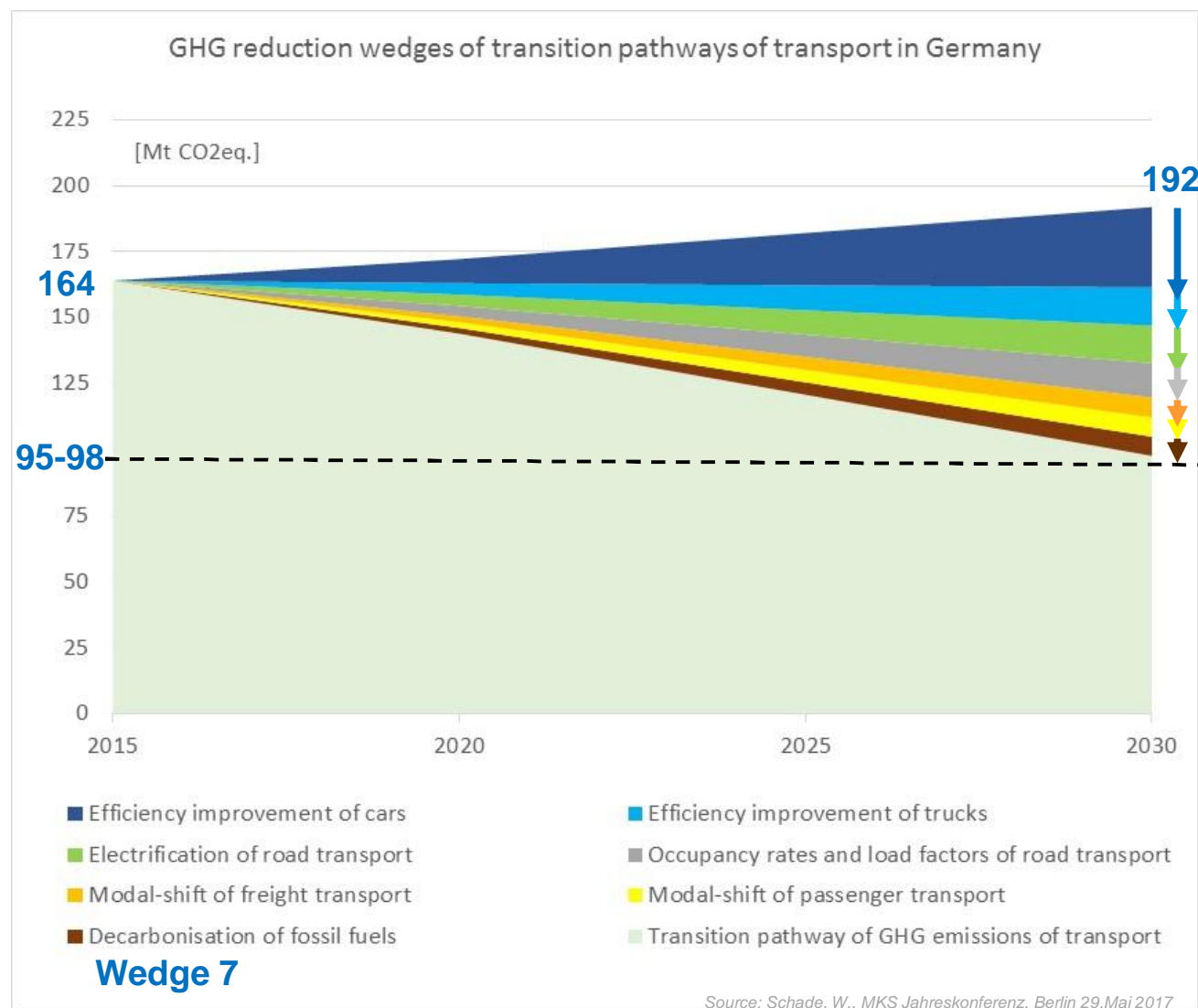
Source: Schade, W., MKS Jahreskonferenz, Berlin 29.Mai 2017

# Decarbonisation strategy of transport in Germany

Most important:

- § Efficiency of cars
- § Efficiency of trucks
- § Electrification of road transport
- § Organisation of transport i.e. load factors and modal-shift

**=> this requires to take measures**



# Setting CO<sub>2</sub>-Standards for new cars (1)

- § Policy-measures need to save 48 to 52 Mt CO<sub>2</sub> by 2030 to move along the transition pathway and to achieve German climate policy target.
- § Largest single policy are CO<sub>2</sub>-standard levels for the new car fleet in 2030
- § 15 to 20 Mt CO<sub>2</sub> savings need to be generated by these **How?**
- § Combination of stimulation of efficiency improvement of cars with internal combustion engines (ICE) and of electric vehicle diffusion (BEV, PHEV, FCEV)
  - => In 2030 share of BEV 45-50%, share of PHEV 20-25%
  - => In 2030 average CO<sub>2</sub>-emission factor of new ICE at 82-84 gCO<sub>2</sub>/km
  - => Targets of 30 to 35 gCO<sub>2</sub>/km feasible and necessary
- § By coincidence industry is on that path of electrification with 25% in 2025



# Setting CO<sub>2</sub>-Standards for new cars (2)

- § But the European Commission first proposal to set the target:
- § 67 gCO<sub>2</sub>/km in 2030
- § Means 5 to 7 Mt CO<sub>2</sub> savings only
  
- § Industry and policy-makers will need to convince the EC on stronger targets at levels of 30 to 35 gCO<sub>2</sub>/km to both:
  
- § Meet the industry vision of road electrification
- § Meet the political goals of decarbonisation



Quelle: Fotolia

# Thank you for your attention!



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