Future Mobility for Livable Cities.

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Agora Verkehrswende – Transforming Transport

Who we are.

→ Initiative by Stiftung Mercator and European Climate Foundation
→ Independent Think Tank and high-level Council of Agora
→ Mission: Scenarios, Discourse and Strategies for the Decarbonisation of Transport until 2050
→ Focus: starting with national land-based transport in Germany in an European context
Transforming transport will only succeed as composite work!
How the Global Transport Sector contributes to Climate Change.

The Transport Sector is responsible for around a quarter of the global energy related CO\textsubscript{2} emissions.

Source: ICCT 2015.
Transforming Transport is key to delivering on the Paris Agreement

Transport sector emissions: business-as-usual and required reductions under 2°C and 1.5°C scenarios

Source: Authors’ figure, historic emissions based on data from IEA (2016), projections based on data from Gota et al. (n.d.).

Note: Simplified illustration based on historic levels and projected 2050 levels. Individual scenarios are likely to peak around 2020 and then decrease emissions at higher rates afterwards.
The G20 is responsible for the lion’s share of energy consumption and transport related greenhouse gases

CO2 emissions from the transport sector 1990 – 2014

Source: Own illustration based on data from IEA
Transport related NDC targets and measures in the G20

Source: NDC and INDC submissions to the UNFCCC

Note: Argentina submitted its NDC in 2016. It does not contain any mention of transport specific measures, unlike the INDC originally submitted in 2015.
In the past 25 years the Transport Sector in Germany could not contribute to CO₂ Emission Reductions.

Relative Development of Greenhouse Gas Emissions for different Sectors since 1990
For the first time ever the German transport sector has an own ambitious emission reduction target.

Federal Climate Protection Plan 2050: The Verkehrswende is an official goal of the Government.

National Sectoral Climate Protection Goals

Emission reduction since 1990 and plan for the next 14 years (in mio. tons of CO₂)

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Energy</th>
<th>Building</th>
<th>Transport</th>
<th>Industry</th>
<th>Agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>1248</td>
<td>446</td>
<td>209</td>
<td>163</td>
<td>283</td>
<td>88</td>
</tr>
<tr>
<td>2014</td>
<td>902</td>
<td>358</td>
<td>119</td>
<td>160</td>
<td>181</td>
<td>72</td>
</tr>
<tr>
<td>2030</td>
<td>543–562</td>
<td>175–183</td>
<td>70–72</td>
<td>95–98</td>
<td>140–143</td>
<td>58–61</td>
</tr>
</tbody>
</table>

Source: Agora Verkehrswende
The ‘Verkehrswende 2050’ will be enabled by the Mobility Revolution and the Energy Transition in Transport.

TRANSPORT TRANSFORMATION
This large-scale transformation will ensure that transport is carbon neutral by 2050.

MOBILITY TRANSITION
The transition to sustainable mobility will reduce energy consumption without limiting mobility.

ENERGY TRANSITION IN TRANSPORT
The transition to clean energy in the transport sector will cover remaining demand with carbon-neutral energy.

Source: Agora Verkehrswende.
In cities, all around the world the mobility transition has already begun.
Shanghai between 1985 and 2010. Makes you humble...

Shanghai Pudong 1985

Shanghai Pudong 2010
“Traffic Tetris“ leads To innovation.
The mobility transition will be the key for livable cities in the future.
The Mobility Alliance

Source: Agora Verkehrswende

- Public Transport
  - Suburban train
  - Underground
  - Tram
  - Bus
  - Taxi

- Non-motorised Transport
  - Bicycle
  - Pedestrians

- Collaborative Mobility
  - Carsharing
  - Ridesharing
  - Bikesharing

Source: Agora Verkehrswende
The bike is back in the kingdom of cars.
20 Cities only account for 40% of the EV Sales worldwide.

These Cities represent 3% of the population and 8% of annual vehicles sales.

What may happen, if nothing gets done.
Thank you very much for your attention!

Comments or Questions? - Please do not hesitate to contact me:

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