

**JAN STEPHAN:**

**„Future mobility against the background of climate change and the turnaround in traffic**

**– using the example of the city of Detmold“**

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## **Abstract**

In the context of climate protection, the German transport sector must also drastically reduce its greenhouse gas emissions. The questions that arise from this are, on the one hand, what measures are to be taken to achieve a reduction in greenhouse gases and, on the other hand, what mobility behaviour will then be like.

The first step in this work is to compile the targets in the transport sector. Targets for the transport sector are derived primarily from the Paris Agreement, the European Climate Act and the Federal Climate Protection Act. After a comparison of the targets with the status quo, from which a great need for action emerges, a strengths-weaknesses-opportunities-risk analysis of the current state is carried out.

Subsequently, the discussed measures in the transport sector are compiled according to the three sustainability strategies "avoid", "shift", "improve" and their effects are estimated on the basis of indicators with the result that the measures in their present form are not sufficient to achieve the reduction targets.

Subsequently, the factors influencing the current understanding of mobility are examined. These result from population developments, economic developments, energy and energy costs, technical progress and political framework conditions. The result of this investigation is that many of the influencing factors have favoured the currently prevailing automobility.

This is followed by a reflection on the measures discussed against the background of the influencing factors just discussed, from which it emerges that fiscal instruments, electromobility and the promotion of local public transport and cycling in particular have strong potential for reducing greenhouse gases.

The study concludes with an analysis of the partial contribution of a rural medium-sized city in the context of the transport transition, in which the concrete mobility behaviour in 2045 is also predicted exemplary.