



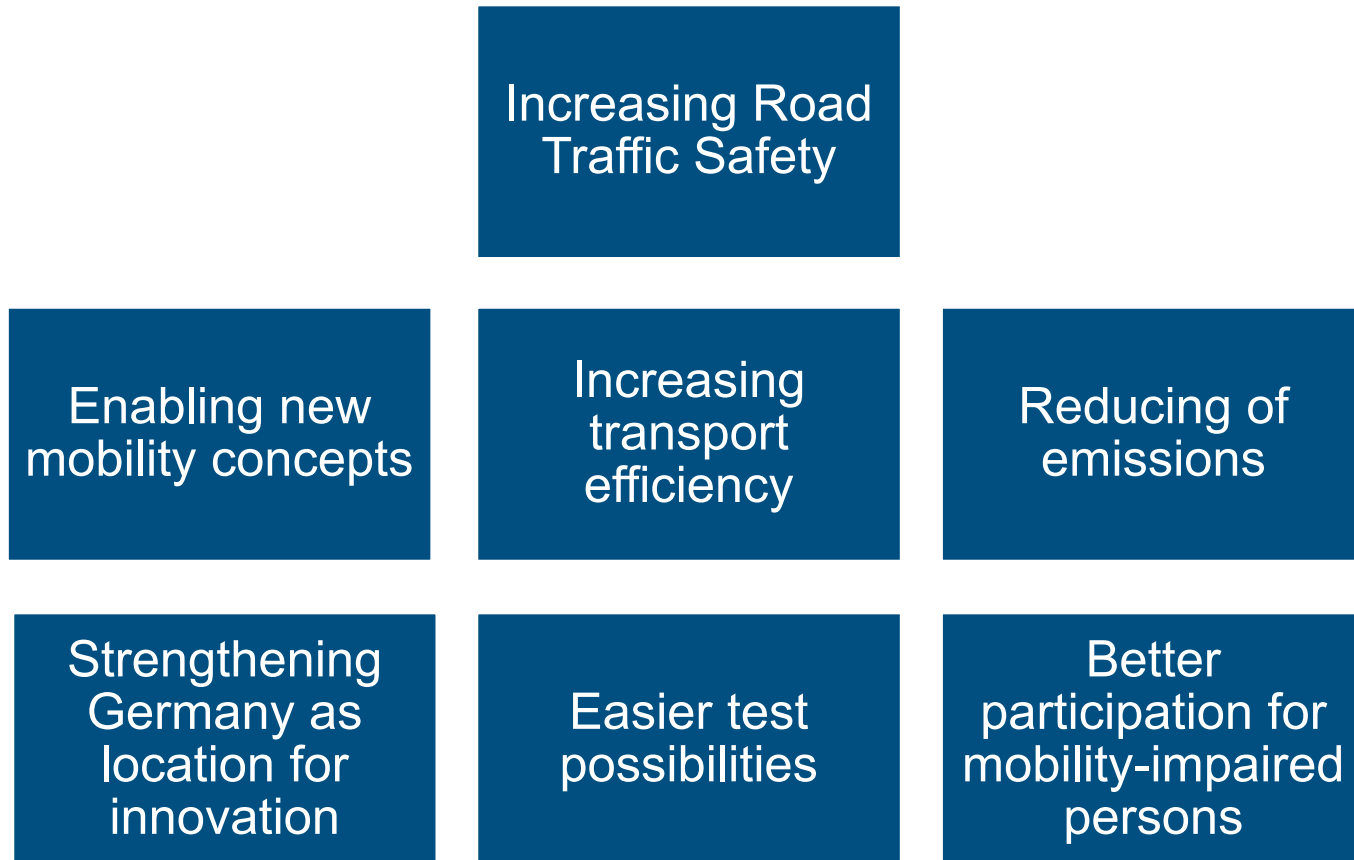
# 11<sup>th</sup> session of WP.29 GRVA

## Item 11:

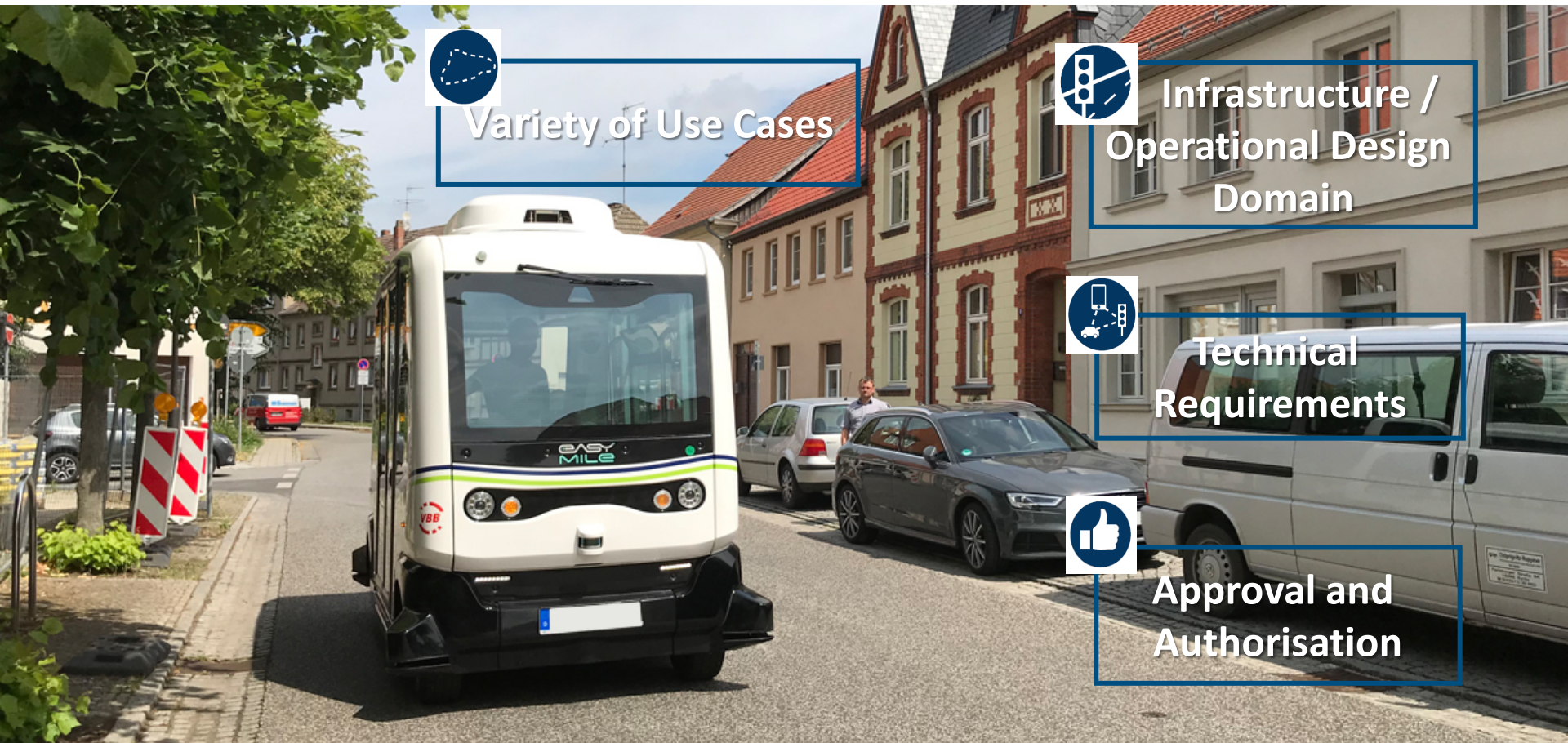
Exchange of views on guidelines and relevant national activities

## German Act Amending the Road Traffic Act and the Compulsory Insurance Act – Act on Autonomous Driving


# Generic Aims of the Act on Autonomous Driving



# Act on Autonomous Driving – Main Factors



  
Variety of Use Cases

  
Infrastructure /  
Operational Design  
Domain

  
Technical  
Requirements

  
Approval and  
Authorisation

Source: REG Regionalentwicklungsgesellschaft Nordwestbrandenburg mbH

# Act on Autonomous Driving

## ➤ Possible Use Cases could include:

- People/Goods-Mover
- Hub2Hub Traffic
- Fleet services
- City bus (feeder, first/last mile)
- Call bus within certain city districts or rural/ suburban areas
- Demand-oriented offers in off-peak times
- Connection of companies/ factories/ leisure parks/ hospitals etc. to public transport nodes
- N1 vehicles for the distribution of goods in the city / as a replacement or supplement to large vehicles in city centers



Source: Technische Universität Hamburg, Matthias Grote



Source: MAN Truck & Bus AG

## ➤ The use of “dual mode vehicles” that offer additional autonomous functions such as Automated Valet Parking (AVP) is also regulated.

## Focus on:

- Autonomous shuttles (driverless vehicles as people mover and goods mover)
- Easier Nationwide testing of automated and autonomous vehicles

## Our Aims:

- Establish a new set of rules for level 4 vehicles, going beyond experimenting with prototypes
- Enable commercialization of automated (driverless) transport of people (people mover) and goods (goods mover).

## Our Approach:

- Three step approval process

## STEP 1

- The national Type Approval Authority (Kraftfahrt-Bundesamt) issues an approval based on a technical requirements for level 4 vehicles.

## STEP 2

- Second approval on the specified ODD (limited geographically to a defined environment, e.g. A to B or even A<sup>2</sup>) done by regional bodies responsible under state law.

## STEP 3

- Based on the approvals according to step 1 and step 2 the registration (receiving license plate) of the level 4 vehicles is performed.

## Requirements for approval **Step 1**:

- **Functional** e.g. for safe driving and emergency reactions
- **Technical** e.g. for communication with infrastructure needed for operation
- **Operational** e.g. for monitoring and owner/technical operator (outside vehicle)
- **Inspection** e.g. for regular inspections

Fulfillment is verified based on a **multi pillar approach** (Audit and Assessment, Simulation, Real world test drive)





## Requirements for approval **Step 2:**

- Verification that the vehicle on the specified ODD (limited geographically to a defined environment, e.g. from A to B or even A<sup>2</sup>) is able to adapt fully to automated driving

## Requirements for approval **Step 3:**

- Registration for level 4 vehicles in the same manner as normal vehicles – given requirements of step 1 and 2 are fulfilled



# Act on Autonomous Driving – Easier Nationwide Testing

- Differences in the local approval (at the level of the federal states (Bundesländer)) of test drives of automated and autonomous motor vehicles for manufacturers and their representatives are counteracted by the fact that a standardizing competence in this regard is now assigned to the Federal Motor Transport Authority.
- Concrete requirements are set for the testing and verification.

# Thank you for your attention.

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