





### **Guidelines to Improve Road Infrastructure for Powered Two Wheelers**

#### **MVMot 2021**

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#### Agenda

- 1. Setting the Scene
- 2. Motorcycle Safety in Germany
- 3. MVMot 2007 / MVMot 2021
- 4. Conclusions and Recommendations



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#### **Powered Two Wheelers (PTW) in Germany**

• about 4,5 M. registered motorcycles



• about 2,0 M. PTW with insurance plates (< 125 cc)

 $\Rightarrow$  more than 5 M. riders (m/f) of mofas, mopeds, scooters and motorcycles



CEDR Workshop on Safety of Motorcyclists 2021



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#### **Characteristics of the Rider's Community in Germany**

- Motorcyclists are distinct individualists
- Nevertheless, they often meet
  - for joint rides
  - at scenic roads and places



- Low degree of organization in riders' interest groups working nationwide (on a honorary basis)
- Social Media as means of communication especially for non-organised riders





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#### **Biker Union e.V.**

- Biggest riders' interests organization in Germany
- Founded in 1986
- App. 3.800 members nationwide
- 11 regional offices and app. 50 "BU-Stammtische" as local contact points located in almost every federal state
- Independent from political parties and other political groups
- No commercial interests











#### Main Areas of Activities

- Representation of riders' interests
  - Lobbying
  - Cooperation with authorities, institutions and different bodies
  - Advisory function in research projects
  - Participation in legislation processes
- Improvement of rider's image
- Fight against discrimination
- Road safety









#### **National and international Cooperation**

• MID Motorrad Initiative Deutschland e.V., the coordination body of German riders' organizations



- Bundesarbeitsgemeinschaft Motorrad (BAGMO), the "Round Table" of the German motorcycle community
- FEMA, the Federation of European Motorcyclists' Associations, located in Brussels (22 national organizations out of 16 European countries)









#### **Current political Issues**

- PTW as an environmental-friendly alternative for individual mobility
- Motorcycle-friendly road infrastructure (e.g. road maintenance and repair, guardrails, roadside obstacles)
- Road bans for motorcycles
- PTW as a part of intelligent transport systems









#### **Road Safety Activities**

- Influence on "high-risk takers" ("speed freaks are no heroes")
- Long-standing cooperation with the police and other institutions in local road safety campaigns and events
- Close cooperation with the German Road Safety Council (DVR) in their national campaign "Runter vom Gas"

("Slow down")









#### Agenda

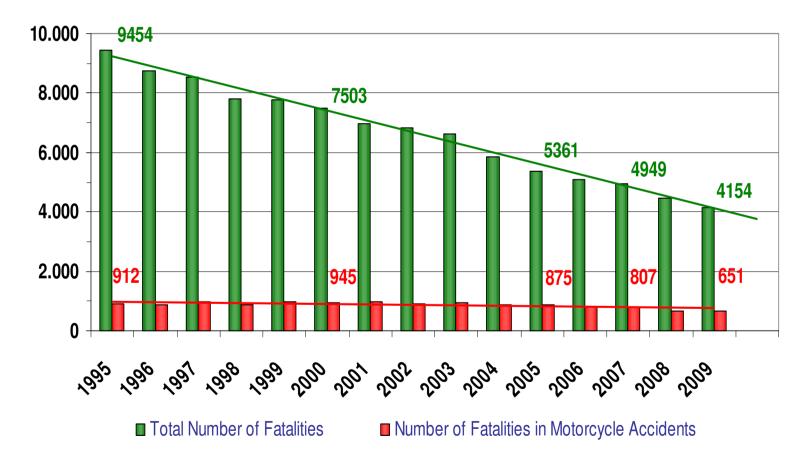
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#### **Development of Road Casualties (1)**

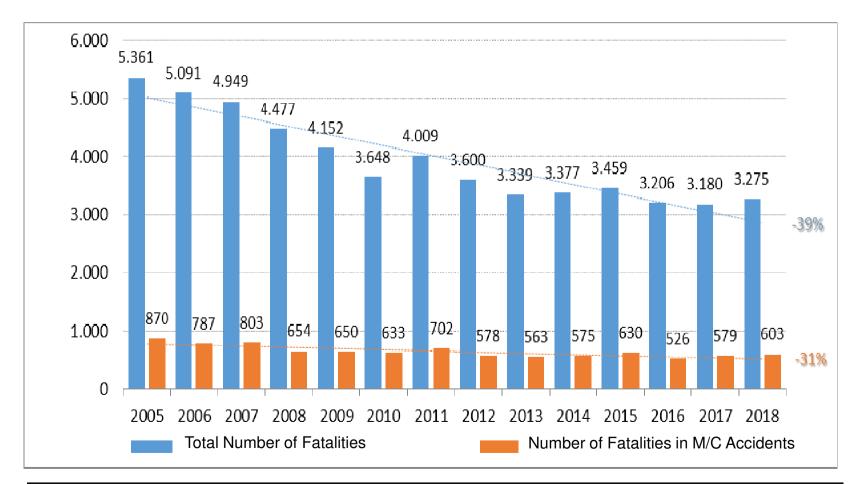








#### **Development of Road Casualties (2)**

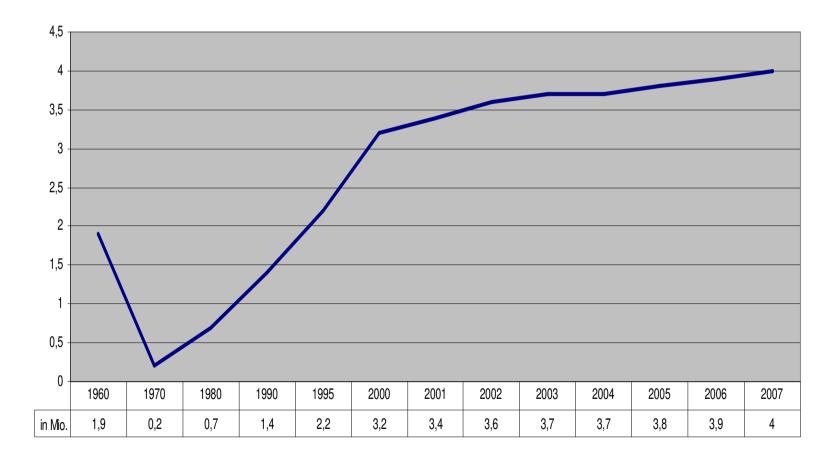








#### **Motorcycle Parc Figures (registered Motorcycles only)**









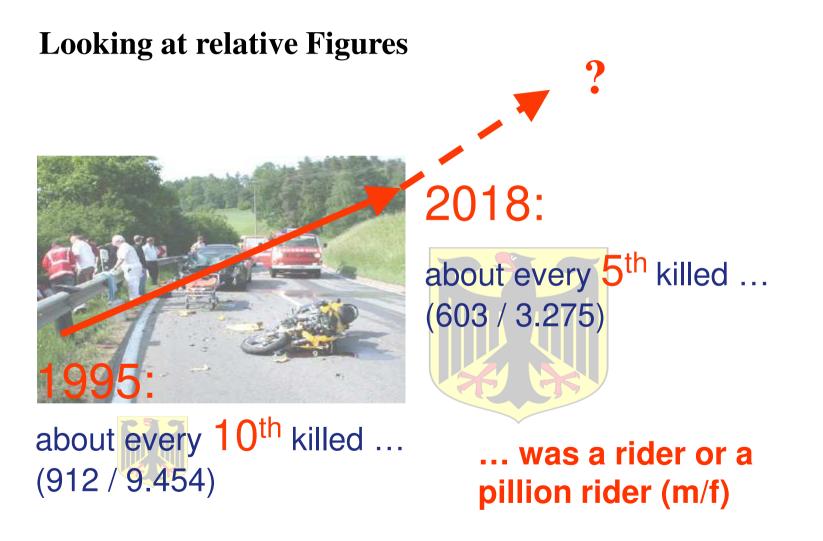
#### Conclusions

- The number of road casualties is decreasing in Germany
- The number of motorcycle casualties is also decreasing
- The "risk of motorcycling" (casualties vs. circulating parc) is significantly decreasing
- But ...







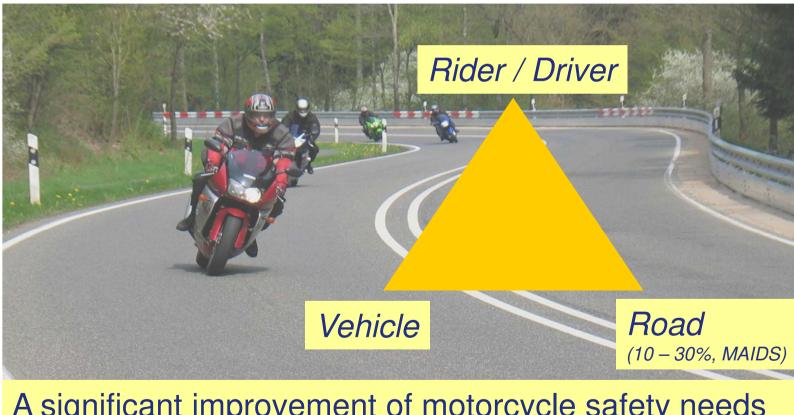








#### **Parameters to improve Motorcycle Safety**



# A significant improvement of motorcycle safety needs an integrated approach !







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#### Working Group "Motorcycle Accidents" (MVMot 2007)

- Established in 2003 by the German Road and Transportation Research Association (FGSV)
- Representatives from
  - Federal States Road Authorities,
  - Police,
  - Road Safety Institutions,
  - Universities,
  - Road Engineering Offices and
  - Riders' Organizations
- Mission: to develop "guidelines" to increase motorcycle safety by an improved road infrastructure in Germany







#### **Working Method**

- Evaluation of studies and related documents
- Preparation and analysis of accident statistics
- Gathering of "best practises" at national and international level
- Development of a process to improve road infrastructure
- Searching for "best practice" pictures as examples







#### **The Results**

- "Leaflet to Improve Road Safety at Motorcycle Roads" (MVMot 2007)
- Presented at a national conference in Oktober 2007
- Implemented in many of the German federal states by decree or formal instruction
- Promoted at national and regional conferences for road engineers and members of road safety commissions









#### Working Group "Motorcycle Safety" (MVMot 2021)

- (Re-)Established in 2011 by the German Road and Transportation Research Association (FGSV)
- In principle the same participants
- Mission:
  - Review the implementation process of MVMot 2007
  - Review the success of implemented measures
  - Identification of gaps and deficiencies
  - Delivery of an updated MVMot in line with all current regulations







#### Main Focus of MVMot

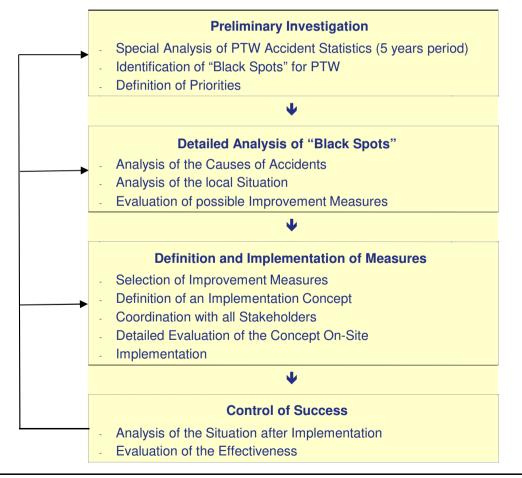
- To avoid PTW accidents
- To reduce the consequences of PTW accidents
- Roads with "black spots" especially for PTW
- Different needs of PTW riders compared to car and truck drivers
- MVMot 2007: Rural roads with a high share of motorcycle traffic (so called "Motorcycle Roads")
- MVMot 2021: all roads including roads in urban areas







#### **"Process of Improvement" defined by MVMot 2021**







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#### **Proposed Safety Measures (Examples)**



**Guide posts concentrated** 



Motorcycle-friendly guardrails



Left turn with line-up range



**Double continues line** 





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#### **Proposed Safety Measures (Examples)**



Flexible signs instead of metal signs



Dispersed signs behind a guardrail



Earth wall instead of guardrails



Obstructed view to be cleared







#### Advantages of the MVMot

- Definition of a process to improve road infrastructure to be performed on a regular basis
- The need to control the success of every package of measures
- The close cooperation of experts with different backgrounds, different views and a broad spectrum of experience
- The integration of the rider's perspective and their practical experience





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#### **Current state of MVMot 2021**

- Presentation of the "final" draft version in February 2017
- Review by the different bodies within FGSV, the relevant authorities of the federal states and the Federal Ministry of Transport
- Signature of the official publication letter ("ASR") by the Federal Ministry of Transport beginning of May 2021
- Publication of the printed version last week; mission accomplished









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#### **Conclusions** (1)

- PTW are one of the most fascinating means of transport today
- PTW are no cars with two wheels!
- Awareness of risk and thinking ahead are <u>the</u> survival strategy of any PTW rider
  - However, not every rider sticks to the rule "Don't drive faster than your guardian angel is able to fly"







#### **Conclusions (2)**

- A sustainable improvement of motorcycle safety needs an integrated approach and is a common responsibility
- Forgiving roads and forgiving roadsides especially in curves are an important part of that integrated approach
- Law enforcement measures have only limited effects to increase road safety; after a short period of time the accidents are taking place at neighbouring roads









Motorcyclists' Organizations <u>have to be</u> an integral part of these activities!







#### We are the experts in all PTW related issues

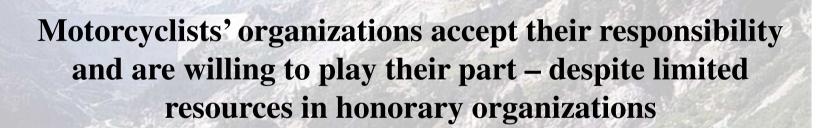
## We have a lot of experience to properly assess the effectiveness of road safety measures for PTW

We have direct access to the target group and communicate on a peer-to-peer level









Benefit from our experience; involve us in your projects at an early stage !





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