

EDR/DSSAD IWG Chairs Approach to Facilitate Completion of EDR Step 1

Assessment of the Ability of Airbag-Deployment as Trigger

IWG members/authors:

Johann Gwehenberger
Oliver Braxmeier
Michael Weyde
Sarah Kinzler
Dietmar Bönninger

Data/Expertise Support:

Isabella Ostermaier
Bettina Zahnd
Henrik Liers
Matthias Kühn








German Insurers
Accident Database










Airbag Deployment in Accidents Involving Injury

Data Source	Data Set and Representativeness	Sample Size	Percentage of Airbag Deployment
	<ul style="list-style-type: none"> • Database mainly contains accidents with serious consequences for the persons involved in the accident (accidents in which rescue helicopters were used) • Accidents involving at least one vehicle of category M1 • Year of manufacture of the vehicle 2008 and later • Period of accidents: 2008 – 2018 	2,044 accidents	79.6%
		2,405 M1 vehicles	77.3%
 AZT Automotive GmbH	<ul style="list-style-type: none"> • Claims of Allianz in Germany Database Third Party Liability with injuries (random samples) • Accidents involving at least one vehicle of category M1 (Policyholder) • No limitation of vehicle age • Period of accidents: 2011, 2013, 2014 and 2018 • Distinction between accidents and M1 vehicles 	1,585 accidents	15.1 %
		2,703 M1 vehicles	10.0 %
German Insurers Accident Database 	<ul style="list-style-type: none"> • Accident Database UDB: representative for all Third Party Liability claims of the German Insurers • Only Third Party Liability claims involving personal injury and at least 15,000 € total claim value • Analyses of vehicle related, infrastructural and behavioral topics • M1 vehicle from the year of first registration 2005 and later 	3,255 accidents	22.1% (Driver-Airbag)
 GmbH  GERMAN IN-DEPTH ACCIDENT STUDY	<ul style="list-style-type: none"> • Reconstructed accidents with personal damage from the accident years 2007 – 2019 • Generally, all types of road users and accident constellations are covered • The in-depth investigation is done within two defined investigation areas in Germany (in/around Dresden and Hannover) • No limitation of vehicle age • Only vehicles with at least one collision (exclusion of non-collided accident causers / other vehicles) 	23,008 accidents	20.5%
		23,839 M1 vehicles	22.4% (Irreversible Systems)




Airbag Deployment in Accidents Involving VRUs*

Data Source	Data Set and Representativeness	Sample Size	Percentage of Airbag Deployment
	<ul style="list-style-type: none"> • Database mainly contains accidents with serious consequences for the persons involved in the accident (accidents in which rescue helicopters were used) • Accidents involving at least one VRU • Year of manufacture of the vehicle 1997 and later • Period of accidents: 2005 – 2018 	921 accidents with VRU and motorcycles	36.6 %
		944 M1 vs. VRU / motorcycles collisions	35.7%
		253 accidents with VRU	13.0 %
 AZT Automotive GmbH	<ul style="list-style-type: none"> • Claims of Allianz in Germany Database Third Party Liability with injuries (random samples) • Accidents involving at least one vehicle of category M1 (Policyholder) • No limitation of vehicle age • Period of accidents: 2011, 2013, 2014 and 2018 • Accidents involving VRU 	274 accidents with VRU	< 0.1 % (n = 1)
German Insurers Accident Database 	<ul style="list-style-type: none"> • Accident Database UDB: representative for all Third Party Liability claims of the German Insurers • Only Third Party Liability claims involving personal injury and at least 15,000 € total claim value • Analyses of vehicle related, infrastructural and behavioral topics • M1 vehicle from the year of first registration 2005 and later 	303 accidents with VRU	0.7 % (Driver-Airbag)
 GmbH  GERMAN IN-DEPTH ACCIDENT STUDY	<ul style="list-style-type: none"> • Reconstructed accidents with personal damage from the accident years 2007 – 2019 • Generally, all types of road users and accident constellations are covered • The in-depth investigation is done within two defined investigation areas in Germany (in/around Dresden and Hannover) • No limitation of vehicle age • Only vehicles with at least one collision (exclusion of non-collided accident causers / other vehicles) 	23,008 accidents	0.3 %

*VRU = Bicycle, pedestrian (without motorcycles)



Airbag Deployment in Accidents Involving Material Damage

Data Source	Data Set and Representativeness	Sample Size	Percentage of Airbag Deployment
	<ul style="list-style-type: none"> • Claims of Allianz in Germany Database <u>Third Party Liability with material damage</u> (random samples) • Accidents involving at least one vehicle of category M1 • No limitation of vehicle age • Period of accidents: 2011, 2013, 2014 and 2018 • Distinction between accidents and M1 vehicles 	3,088 accidents	1.1 %
		5,876 M1 vehicle	0.6 %
	<ul style="list-style-type: none"> • Claims of Allianz in Germany Database <u>Motor-own-Damage</u> (random samples) • Database mainly contains accidents without personal injuries • Accidents involving at least one vehicle of category M1 • No limitation of vehicle age • Period of accidents: 2011, 2013, 2014 and 2018 • Distinction between accidents and M1 vehicles 	4,164 accidents	3.8 %
		5,811 M1 vehicle	2.7 %

Estimation by the UDV:

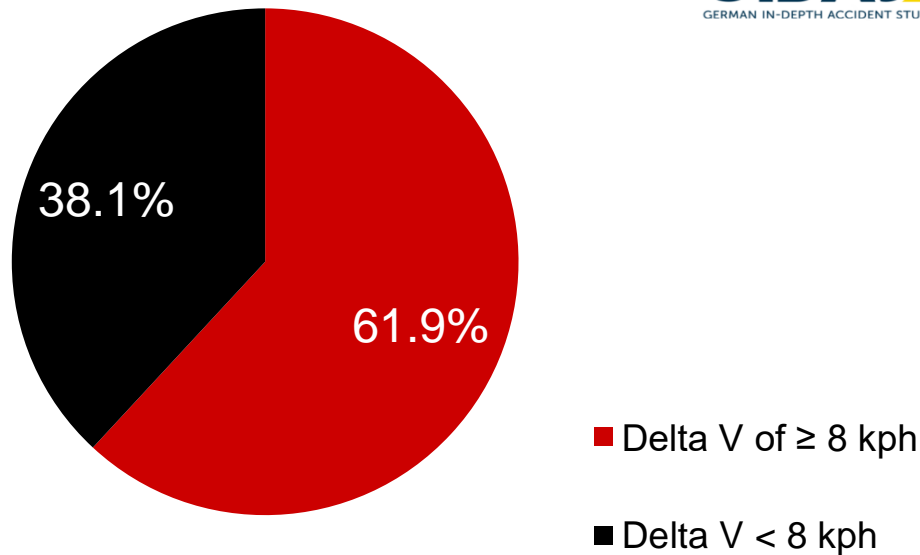
- Number of Third Party Liability (TPL) claims in Germany (2018) = 2,76 mio.
- Approx. 8 % of all TPL claims with personal injury
- Percentage of TPL claims with severe personal injury claims out of all TPL claims with personal injuries ~ 25 %
- Percentage of driver-airbag deployments for TPL claims with severe personal injuries = 22.1 %

→ 8 % × 25 % × 22,1 % = *approx.* 0,4 % Driver-airbag deployments for all TPL-claims



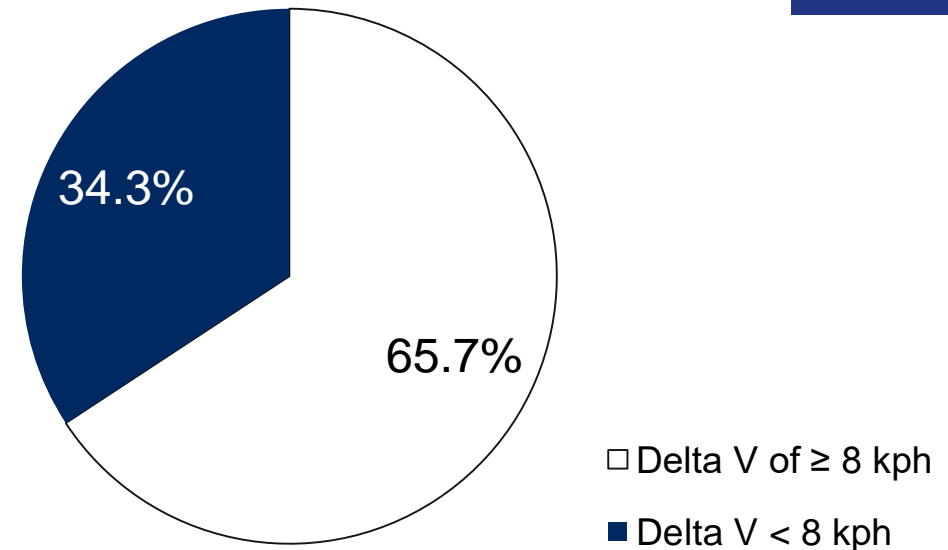
Distribution of Delta-V in Accidents

Cars with a collision involved in accidents with injuries (n = 26,051)



*Cars with a frontal collision with a pedestrian or bicyclist (Delta V < 8 kph) n = 2,973 (11.4 %)

Difference in Speed of Conflict Parties (n = 3,197)



- AXA-claims with installed Event-Data-Recorder in Switzerland (Year: 2008 – May 2020)
- It should be noted that the percentage must be regarded as a minimum. Accidents have been reported in the low speed range, but no crash recorder data acquisition took place.



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Unfallforschung
der Versicherer
GDV

