



Informal document **GRSP-56-30**
(56th GRSP, 9-12 Dec. 2014,
agenda item 3(a))

Pedestrian Safety

Effects of Bumper Test Area Determination Using the Old vs. the New Method

Presented by the experts of OICA

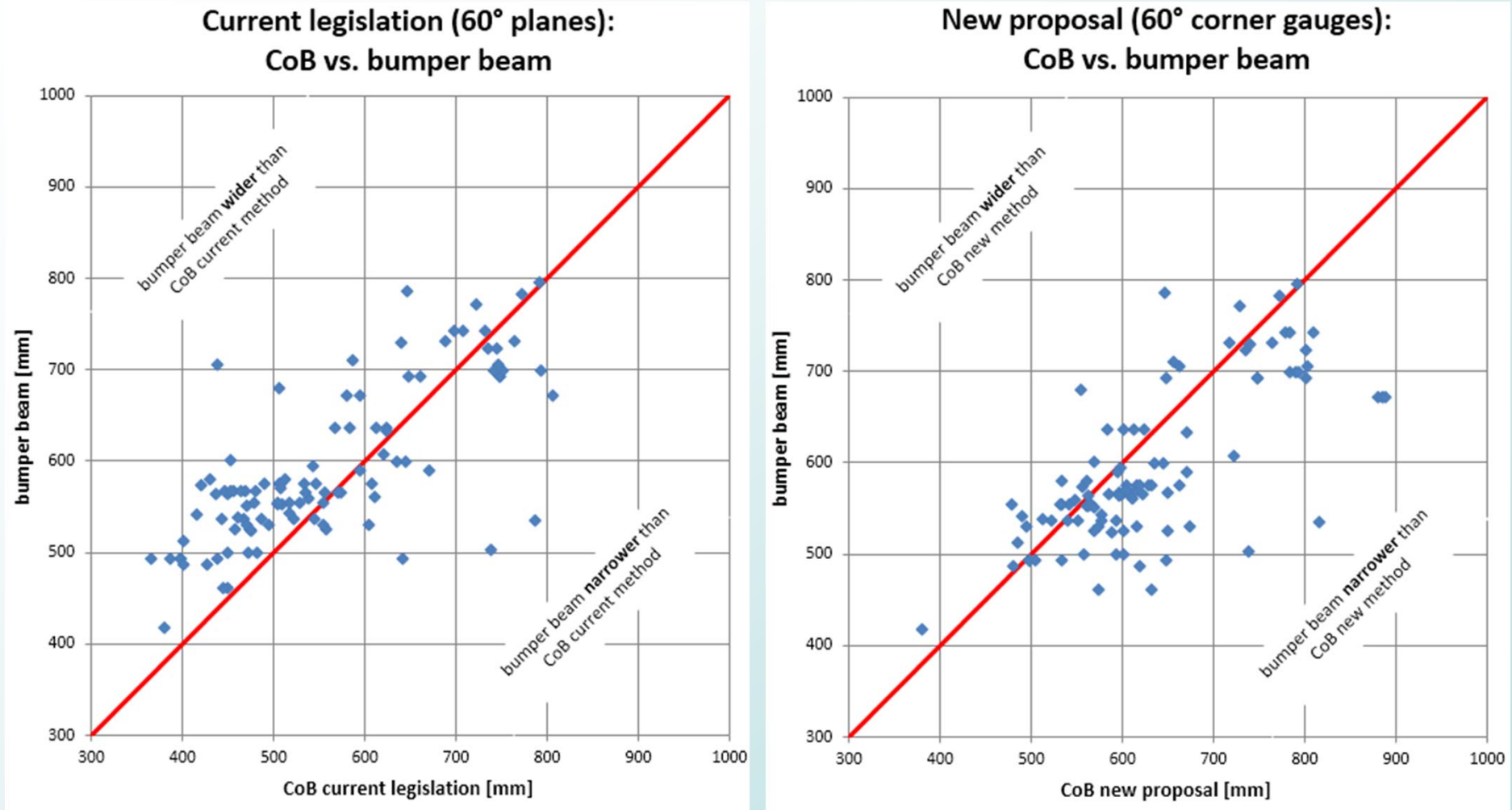


Benefits of the Method Using Corner Gauges Only

- For most vehicles, the test area will be extended (as suggested by several authorities) and will at least remain unchanged for a very few
- For only very few vehicles, the bumper beam will continue to extend beyond the test area, as is the case today
- The new method:
 - Is feasible, repeatable, reproducible, less sensitive to specific design features
 - Can be performed without disassembling parts
 - Is suitable also in self certification framework
- OICA therefore supports this method



Comparison: Old and New Method vs. Bumper Beam Width



Data were delivered by 9 OEM's for 103 vehicles in total.



Thank you!

For detailed questions please refer to the authors, Mr. Thomas Kinsky / General Motors Europe Engineering, Mr. Winfried Schmitt / BMW and Mr. Jörg Kusche / Porsche, as representatives of the International Organization of Motor Vehicle Manufacturers OICA



Back-up

- For the determination of the bumper corners, „**current method**“ or „**old method**“ refer to the method used today in gtr No. 9 and UN R127: vertical planes make angles of 60° with the vertical longitudinal plane of the vehicle and are tangential to the outer surface of the bumper, the contact points are the corners of bumper
- „**New proposal**“ or „**new method**“ refer to the method proposed by the Task Force Bumper Test Area (TF-BTA) in their documents: 236 x 236 mm corner gauges are moved parallel to vertical planes with angles of 60° to the vertical longitudinal center plane of the vehicle, the outermost points of contact are the corners of bumper
- „**Bumper beam**“ refers to the structural cross member under the bumper fascia protecting the front of the vehicle but does not include foam, cover support or any pedestrian protection devices