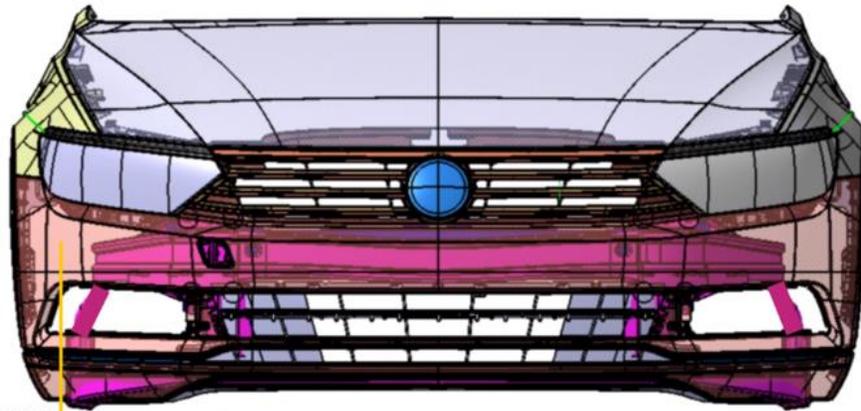


Problem 1: unclear BTA definition regarding additional cross beam structures (e.g. for MPDB)

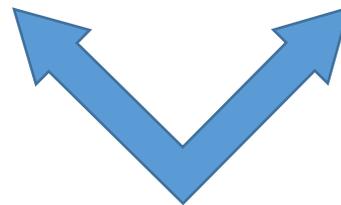
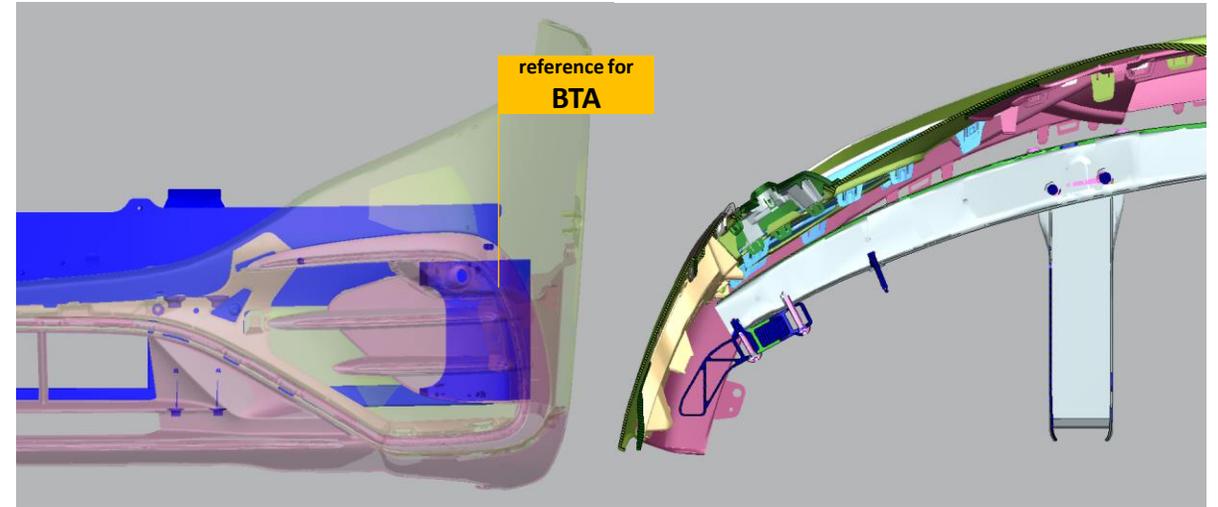
VW Passat

Mercedes EQS



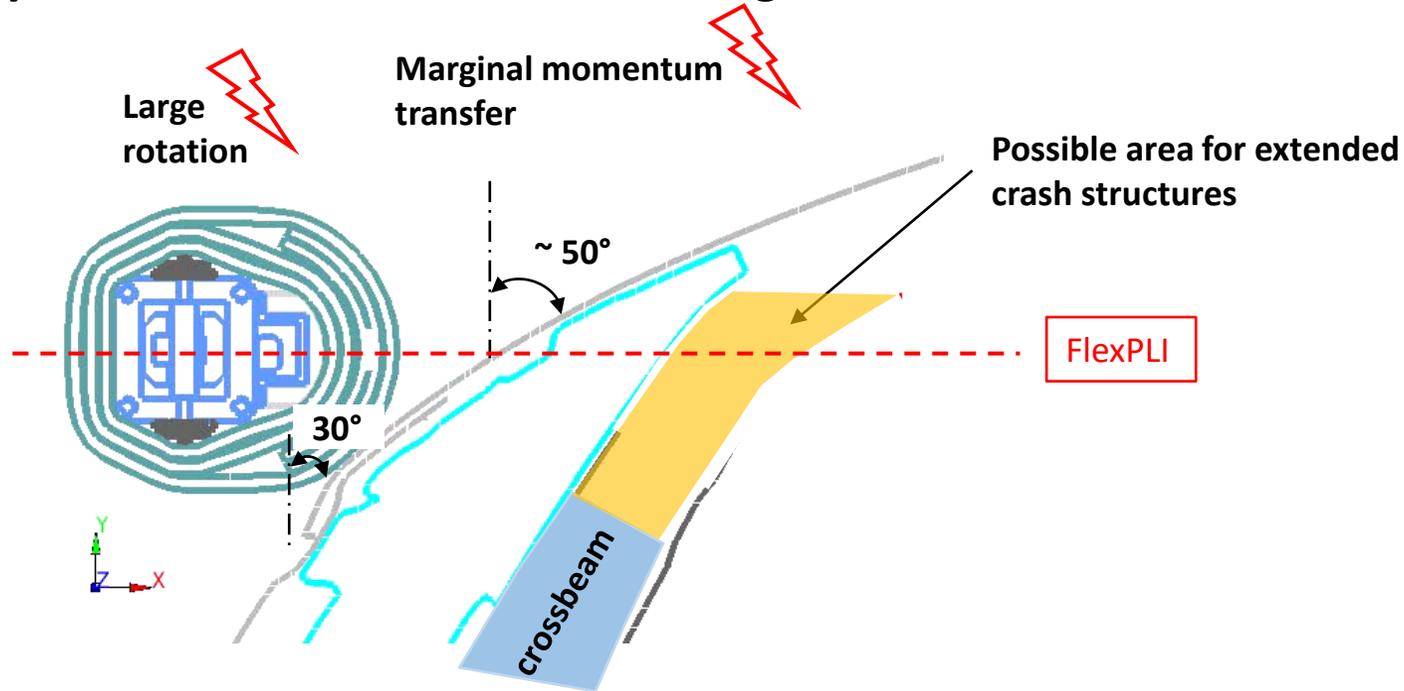
Y 796
(87%)

reference for
BTA



Different interpretations by technical services

Problem 2: Physical detection limitation in sliding situations



→ Conclusion:

additional cross beam parts intended for crash improvement (e.g. MPDB) may be considered for leg impact/BTA, but there is **no logical correlation to sensing width!**

→ Guiding principles for new definition of sensing width:

- free of interpretation
- Only relating to geometrical vehicle properties, excluding body shell structures
- oriented on current BTA definition & market situation

Rationale:

Geometry based BTA criterion: original requirement for bumper test area definition

Structure based BTA criterion: introduced as backup requirement for 'special frontend designs' based on **potential leg injury risk** for leg impact, not for sensing width.

(maintaining) test area for **leg impact:**

"3.11. Bumper test area means either the front vehicle fascia between the left and right corner of bumper as defined in paragraph 3.14. ('corner gauge'), minus the areas covered by the distance of 42 mm inboard of each corner of bumper, as measured horizontally and perpendicular to the longitudinal median plane of the vehicle,

or between the outermost ends of the bumper beam as defined in paragraph 3.9. (see Figure 5D), minus the areas covered by the distance of 42 mm inboard of each end of the bumper beam, as measured horizontally and perpendicular to the longitudinal median plane of the vehicle,

whichever area is wider."



MAX (30° corner gauge -42 mm; end of 'bumper beam')

Proposed new test area for sensing:



Taking over



Replacement by 75% vehicle width at front axle



MAX (30° corner gauge -42 mm; 75% of vehicle width at front axle)