

IG GTR9-PH2 TF-BTA

**Issues of FlexPLI Impact Against
Angled Surface**

7th TF-BTA Meeting

29/August/2014

Japan Automobile Standards Internationalization Center (JASIC)

Difference in Kinematics bet. FlexPLI and Human

TF-BTA-7-06

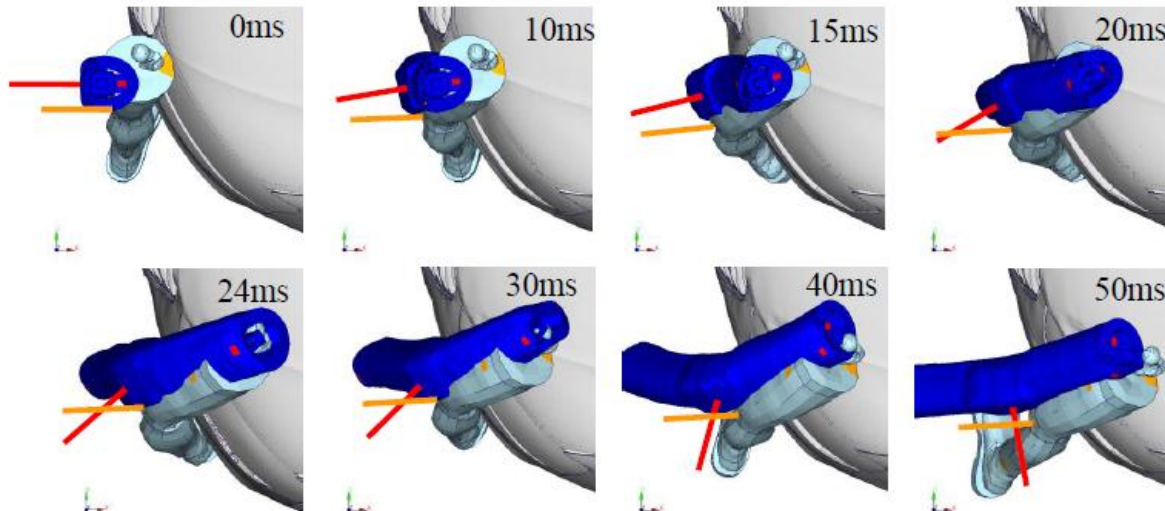


TF-BTA-3-03r1

FlexPLI Behaviour in Outer Area

Comparison of THUMS / FlexPLI

- Overlay of both legs
- Comparison of rotation Y500



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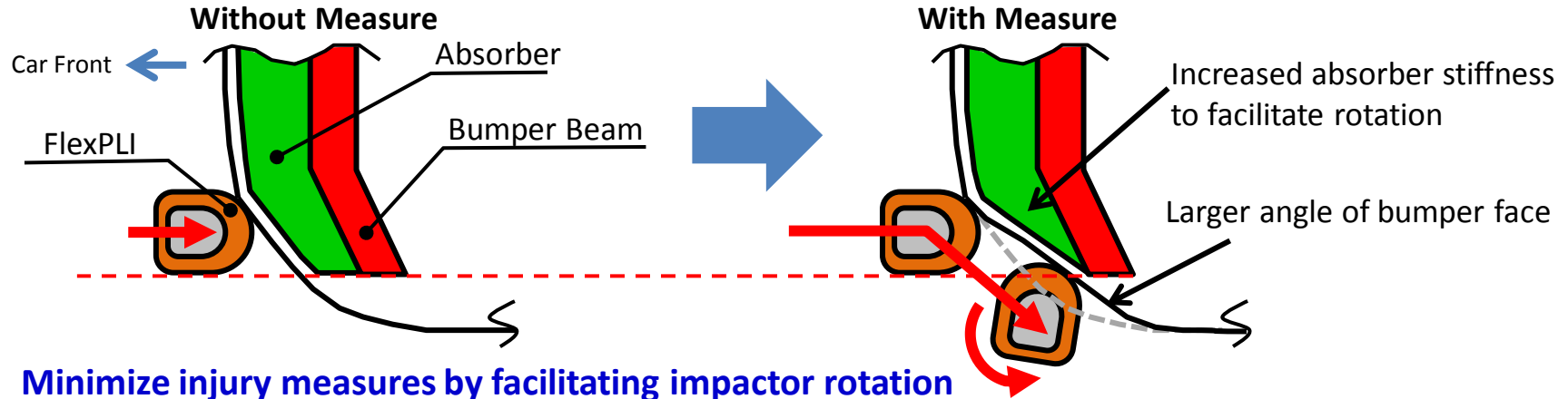
S. Deringer, AUDI AG, 07.03.2013

It has already been clearly shown at the 3rd TF-BTA meeting that the kinematics differ significantly between the FlexPLI and a human body in an impact against an angled surface primarily due to rotation in the longitudinal axis of the leg

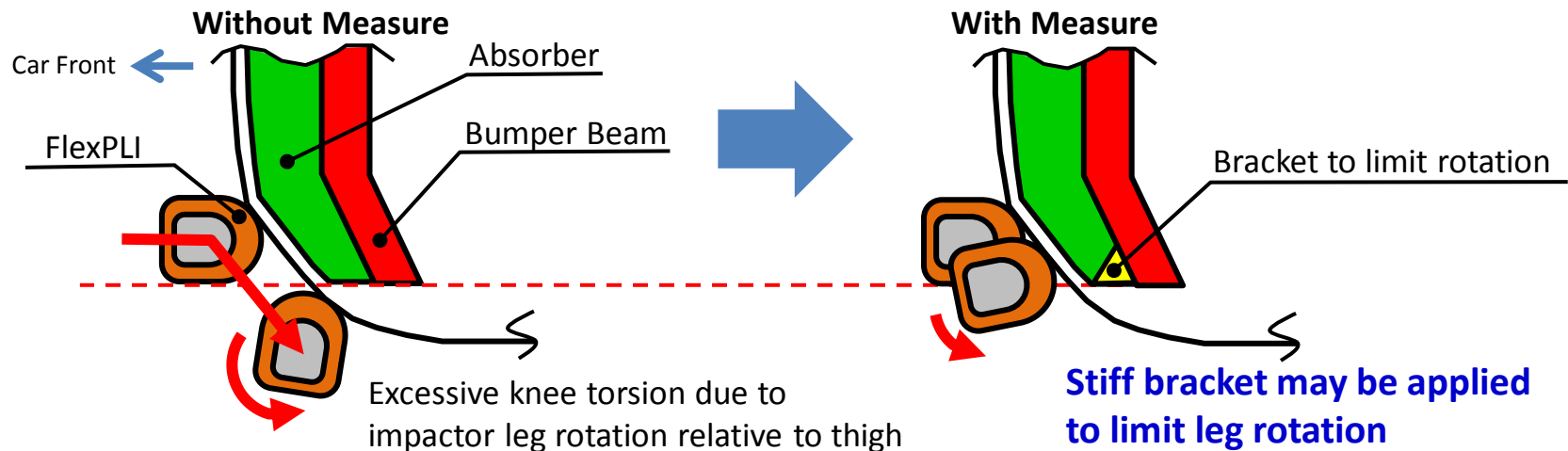
Potential Issues in Angled Impact

Specific Measures for Legform Potentially Injurious to Actual Human

Facilitation of Impactor Rotation about Long. Axis



Suppression of Impactor Rotation about Long. Axis



Application of measures injurious to a human body may be facilitated

Summary

- **The bumper beam proposal requires further technical investigations on the issues, such as the difference in the kinematics and the injury measure correlations between the FlexPLI and a human body, which will take significantly long time.**
- **JASIC supports the EC proposal due to the lack of the issues mentioned above by the use of 30 degrees criterion.**