

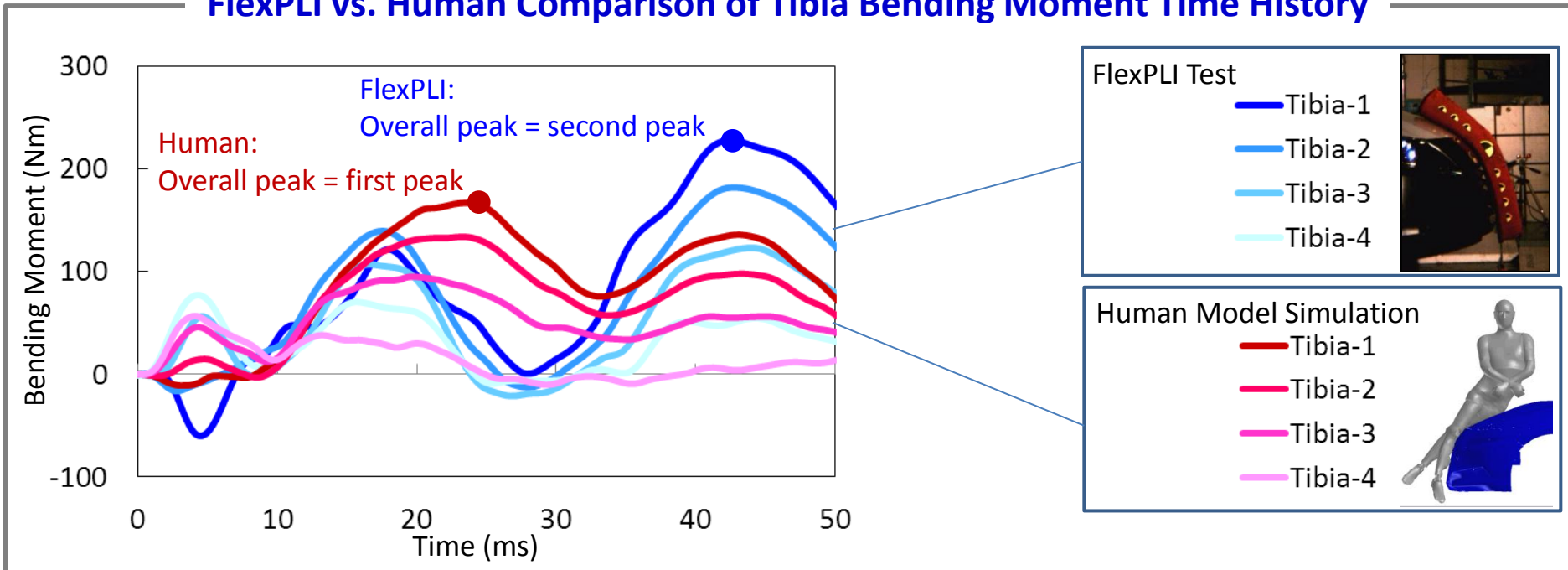
FlexPLI Rebound Phase

7th IG GTR9-PH2 Meeting
3/July/2013

Japan Automobile Standards Internationalization Center (JASIC)

Understanding of Issue

FlexPLI vs. Human Comparison of Tibia Bending Moment Time History



- A comparison of tibia bending moment time histories has shown that the exaggerated secondary peak of the FlexPLI model relative to the human model may affect the maximum value for some specific vehicles
- The conditions under which this inconsistency takes place have been developed and validated against existing test data (example : GTR9-5-08)

Understanding of Issue

- Despite the technical issues identified,
 - The identified inconsistency is relevant infrequently
 - There are some other minor issues with regard to biofidelity inherent in a mechanical substitute of a human body
 - No cases critical against the proposed injury criteria have been identified so far
 - The conditions under which this inconsistency is identified has not been validated against vehicle structures completely different from the current vehicles

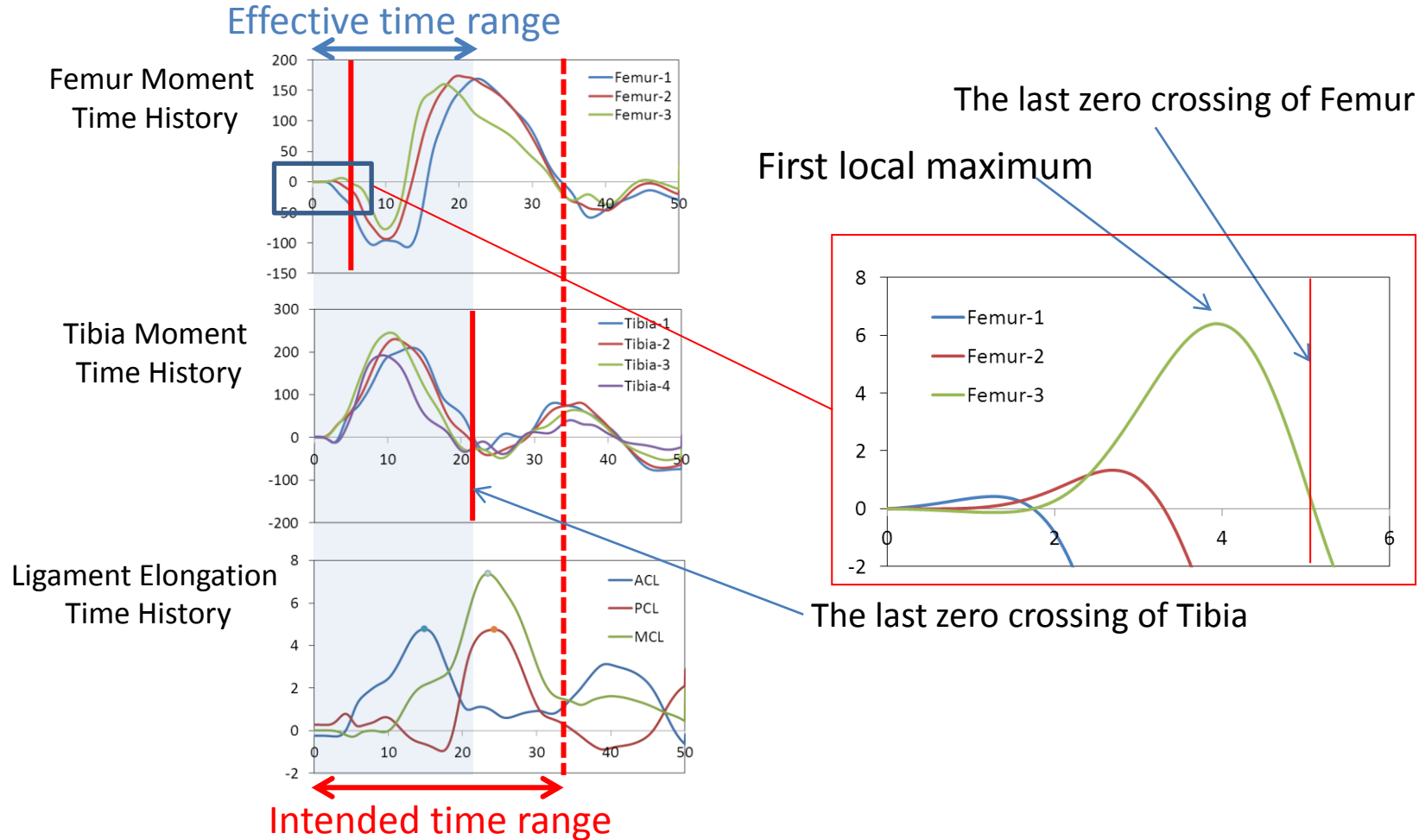
JASIC Position

- Considering these situations, the issue does not necessarily need to be further discussed and agreed for GTR9 Phase-2, prioritizing the current ToR schedule of the IWG
- Provided that some issues will be resolved, the BAsT proposal can be acceptable, although not fully supported due to the lack of considerations on this issue

Issues with BAST Proposal

Definition of Timing

The BAST definition may result in an unexpected definition of the effective time range



The definition of the first local maximum needs to be modified

Issues with BAST Proposal

- Terminology – Biofidelic Assessment Interval (BAI)
 - JASIC recognizes the biofidelity issue of the exaggeration of the secondary peak of the tibia bending moment
 - The word 'Biofidelic' is recommended to be eliminated – 'Assessment Interval' would be supported