11th TEG FlexPLI Meeting on 20. & 21.04.2010
Offices of ACEA, Brussels

Injury values: impact vs rebound
1. Current situation – injury values: impact vs rebound
2. Conclusion & Recommendation
Current situation – injury values: impact vs rebound (one example)

- Bending moments:
  - Highest values occur during the impact

- ACL/PCL:
  - Maximal PCL value occurs during the rebound – (slightly) higher value than during the impact
Conclusion & Recommendation

Summary/Conclusion:
• In the rebound phase of the Flex GTR (vehicle impact), higher ACL/PCL elongation values can occur than during the impact itself.
• Legform Kinematics are biofidelic up until rebound.

Recommendation:
• All maxima occurring during and after the rebound phase shall be ignored. (The rebound phase usually starts around 50 milliseconds but must be determined from film analysis.)