The Need for Harmonized Legislation on Pedestrian Protection

Industry Position
provided by
the International Organization of Motor Vehicle Manufacturers (OICA)
Development of a GTR on Pedestrian Protection

Countries with Enforced Legal Requirements

European Union:
- Phase 1: 01 Oct. 2005 NT
  31 Dec. 2012 NR
- Phase 2: 01 Sept. 2010 NT
  01 Sept. 2015 NR

Japan:
01 Sept. 2005 NT
01 Sept. 2010 NR
Development of a GTR on Pedestrian Protection

Countries Involved in GTR Discussion

Europe:
- Phase 1: 01 Oct. 2005 NT
  31 Dec. 2012 NR
- Phase 2: 01 Sept. 2010 NT
  01 Sept. 2015 NR

Canada, United States, Korea:
Active participation in development of Global Technical Regulation

Japan:
01 Sept. 2005 NT
01 Sept. 2010 NR
Development of a GTR on Pedestrian Protection

Future Outlook

Canada, United States, Korea: Active participation in development of Global Technical Regulation

Underlined countries are those that are already assessing the introduction of pedestrian legislation.

European Union:
• Phase 1: 01 Oct. 2005 NT
  31 Dec. 2012 NR
• Phase 2: 01 Sept. 2010 NT
  01 Sept. 2015 NR

Japan: 01 Sept. 2005 NT
  01 Sept. 2010 NR

China, India, Australia: Closely observe GTR activities

INF GR PS Meeting, July 11 – 13, 2005
Development of a GTR on Pedestrian Protection

Parties Involved in GTR Development

Observers

Interest, active participants

Affected

OICA

Japan MLIT

European Union

ACEA

KAMA

Alliance

USA

Canada

Korea
Development of a GTR on Pedestrian Protection

If GTR is NOT Agreed

- Risk of different or unique national legislation in all countries mentioned before.
- Risk of "cherry-picking" of parts of national legislation that does not translate into benefits for the pedestrian but creates unsolvable feasibility problems.
- Risk of creation of trade barriers.
Development of a GTR on Pedestrian Protection

If GTR is NOT Agreed

- Designing vehicles to meet different exterior requirements (and possible other or new requirements if no GTR):
  - Means additional burden for Industry:
    - Duplication of designs from the beginning of the platform design (at least 6 years before SoP of a model, considering a lifespan of platforms of around 15 years);
    - manufacturing complexity;
    - complexity of interpretations;
    - certification costs and lead-times etc.
  - Could exclude certain vehicles from some markets.
  - Increases consumer costs.
Development of a GTR on Pedestrian Protection

Headform test requirements are very close…

Japan (IHRA based)

<table>
<thead>
<tr>
<th>Limits</th>
<th>Japan (IHRA based)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/3: HPC ≤ 2000</td>
<td>IHRA Adult Head</td>
</tr>
<tr>
<td>2/3: HPC ≤ 1000</td>
<td>m = 4.5 kg</td>
</tr>
<tr>
<td>v = 32 km/h</td>
<td>IHRA Child Head</td>
</tr>
<tr>
<td>m = 3.5 kg</td>
<td>65° Sedan</td>
</tr>
<tr>
<td>α = 65° Sedan</td>
<td>50° Van</td>
</tr>
<tr>
<td>60° SUV</td>
<td>90° SUV</td>
</tr>
<tr>
<td>25° Van</td>
<td></td>
</tr>
</tbody>
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ACEA Proposal for Europe Phase 2

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<td>1/3: HPC ≤ 1700</td>
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<tr>
<td>v = 35 km/h</td>
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</tr>
<tr>
<td>m = 3.5 kg</td>
<td>65° Sedan</td>
</tr>
<tr>
<td></td>
<td>50°</td>
</tr>
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</table>

… a GTR is possible!

INF GR PS Meeting, July 11 – 13, 2005
Development of a GTR on Pedestrian Protection

Certification acc. to Different Existing Legislation *)

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<th>Japan</th>
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</thead>
<tbody>
<tr>
<td>Number of headform impacts to bonnet</td>
<td>18 (minimum)</td>
<td>3 to 10 depending on the bonnet size</td>
</tr>
<tr>
<td>Replacement of bonnet</td>
<td>6 (minimum)</td>
<td>2 to 10 depending on the bonnet size</td>
</tr>
<tr>
<td>Total time for all headform to bonnet tests (estimation)</td>
<td>6 to 10 working days</td>
<td>2 to 4 working days</td>
</tr>
</tbody>
</table>

*) In fact, even more tests are needed during development:

• Estimated between 100 and 200 tests for one national legislation;
• 150 to 300 for two different national legislations!
Harmonization is urgently needed.

Existing requirements are still close – harmonization is possible!