In-depth assessment of proposed amendments of UN Regulation 129 on Enhanced Child Restraint Systems –

UN Informal Group on CRS 21st Jan 2015
CRS-49-XX
## Background

Child safety projects/reports for the Commission (P Broertjes)

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>2009 – 2010</td>
<td>Analysis for the development of legislation on child occupant protection</td>
</tr>
<tr>
<td>2011 – 2012</td>
<td>Substitute &amp; additional expert technical representation on behalf of the EC</td>
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<tr>
<td>2012 – 2013</td>
<td>Q-Series dummy family specification assessment</td>
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<td>2012 – 2014</td>
<td>Assessment of amendments to the new regulation, ……</td>
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<tr>
<td>2013 – 2014</td>
<td>Q-Series crash test dummy family regulatory application assessment</td>
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<tr>
<td>2014 – 2015</td>
<td>Assessment of proposed amendments to original series of UN Regulation 129</td>
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Project objectives

- To support the Commission during the further development of UN Regulation 129 on “Enhanced Child Restraint Systems”

- To expedite final discussions and drafting of the second phase and to support discussions on the third phase of proposals; including:
  - Further development of the performance criteria and test methods for non-integral child restraint systems
  - On-going validation and assessment of other emerging issues identified by the Commission
  - Drawing package assessment for Q-Series dummy family
Project structure

Technical work programme

- Task 1: Further development of the performance criteria and test methods for **non-integral child restraint systems**

- Task 2: On-going **validation and assessment** of other emerging issues identified by the Commission

- Task 3: Q-Series dummy family **drawing package assessment**
Task 1: Further development of the performance criteria and test methods for non-integral CRS

**Objective:** Propose and validate a solution that improves the capacity of UN Regulation 129 to differentiate between non-integral CRS

- Previous reports demonstrated issue and implications
- No ready-to-go solution for chest or abdomen
- Experiments to build on our previous work and that of other stakeholders
Task 1: Further development of the performance criteria and test methods for non-integral CRS

- **Approach:** 30 front impact sled experiments will be carried in total for this task
- Validate and build on findings to date
- First phase of testing end February

- Use of second chest deflection sensor
- Use of abdomen sensors
- Use of pelvis accessories
- General consideration of conditions and kinematics
Task 2: On-going validation and assessment of other emerging issues identified by the Commission

- **Objective:** Investigate and validate certain aspects of UN Regulation 129 when specific issues and questions arise, as identified by the Commission

- Investigate any specific issues that may arise in addition to Task 1 over the course of the project.
Task 3: Q-Series dummy family specification assessment

**Objective:** Review the drawing packages of the Q6 and Q10 dummies for application in Mutual Resolution No. 1

- CPR1665 provided in-depth assessment of Q3
- This task provides similar assessment of Q6 and Q10
- No compliance check of physical dummies
Request for data from stakeholders

- **Request data to help evaluate Task 1:** Propose and validate a solution that improves the capacity of UN Regulation 129 to differentiate between non-integral CRS

- Request stakeholder data for testing experience with Q3, Q6, Q10:
  - Non-integral restraints
  - Without a CRS
  - In R129 test environment
  - In body shell/vehicle test environment
  - Belt interaction solutions
  - Chest and abdomen loading measurements
Request for data from stakeholders

- **Request drawing packages to enable Task 3:** Review the drawing packages of the Q6 and Q10 dummies for application in Mutual Resolution No. 1

- Packages to be sent via formal chain from the Informal Group
  - With the approval of the group
  - With the approval of Humanetics
Any Questions?

Further input to:

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Thank you

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