# REPORT OF THE FIRST MEETING OF THE INFORMAL GROUP ON PEDESTRIAN SAFETY Paris, 4-5 September 2002

## Transmitted by the chairmen of the informal group

## 1. INTRODUCTION

During the 126<sup>th</sup> session of WP.29 in March 2002, AC.3 concluded on their considerations of priorities for developing future global technical regulations. WP.29 adopted the 1998 Global Agreement Program of Work which included pedestrian safety and decided to start the work on pedestrian safety in the 31st session of GRSP in May 2002, by creating an informal group.

During the 31<sup>st</sup> session of GRSP, Japan accepted the chairmanship of the group. Informal document 10 of that session lays down the terms of reference of the group and the document was adopted by GRSP.

The informal group held its first meeting on September 4 and 5 in Paris. The group was chaired by Mr Mizuno (Japan) and Mr Friedel (EU) whilst the Secretariat was provided for by Mr Van der Plas (OICA). Participants to the meeting were:

Mr Ammerlaan (Netherlands)

Mr Castaing (France)

Mr Césari (EEVC)

Mr Davis (Canada)

Mr Doyle (EU)

Mr Friedel (EU)

Mr Huguet (Spain)

Mr Nacenta (Spain)

Mr Ishikawa (Japan)

Mr Mizuno (Japan)

Mr Yamagishi (Japan)

Mr Massaia (Italy)

Mr Saul (USA)

Mr Vroman (CI)

Mr Ayral, Mr Buma, Mr Frederikson, Mr Herpich, Mr Jaskulski, Mr Roumegoux (CLEPA)

Mr Dross, Mr Hahn, Mr Kitano, Mr Langer, Mr Le Bigot, Mr Pouget, Mr Rentschler, Mr Ries, Mr Staines, Mr Tanahashi, Mr Vallée, Mr Van der Plas, Mr van der Straaten, Mr Yamaguchi (OICA)

This informal document is an interim report to GRSP aimed at updating GRSP with the progress of the informal group. The informal group will present its preliminary report during the 33<sup>rd</sup> session of GRSP in June 2003 as requested in the terms of reference and in line with the guidelines regarding proposing and developing of global technical regulations (TRANS/WP.29/2002/24 and 2002/49) as adopted during the 127<sup>th</sup> session of WP.29 in June 2002.

# 2. SUMMARY OF THE FIRST MEETING

Basic goal of the group: Establish a GTR that can be used by all Contracting Parties to replace existing national / regional legislation or to establish new legislation.

# 2.1. EXISTING OR FUTURE NATIONAL / REGIONAL LEGISLATIVE ACTION PLANS

The group received updates from the EU and Japan on the status of their legislative progress.

- EU: The European Parliament in its June session gave the go ahead for the industry Commitment but in parallel called for the introduction of a Directive. The proposed draft Envelope Directive will be based on the Commitment and will set the limits / boundaries. The details would remain in the Commitment and not be copied. Publication of the draft proposal was scheduled for November. The contents of the Commitment / Directive relating to passive safety consist of 2 phases:
  - Phase 1: modified JRC tests on child head, adult head (monitoring only), lower leg, upper leg against bumper and upper leg against bonnet leading edge (monitoring only).
  - Phase 2: aims at EEVC WG17 and has requirements for child head, adult head, lower leg and upper leg.

• Japan: The focus for the short term is a reduction of the number of fatalities, on the longer term leg injuries will be included as well. Japanese proposals will follow the IHRA decisions. The content of the draft proposal includes child and adult head tests with two different impactors (3,5 kg and 4,5 kg).

#### 2.2. ACCIDENT ANALYSIS

The group reviewed IHRA accident data provided by Japan. Additionally the group will collect accident studies from:

- EEVC including new data from France and UK
- o OICA
  - GIDAS
  - UN periodic data
  - ACEA data
- o The Netherlands and Italy will check their national data (if available)
- Spain will check if the hospital care survey can be of use.

# 2.3. PARAMETERS TO BE TAKEN INTO ACCOUNT

- Based on the total input, conclusions will be made:
  - o Assess risk of pedestrians compared to other road users
  - o Change of pedestrian risk over time
  - Establish basis for test procedure (speed, body regions, car area, ...)
- Based on the IHRA data preliminary conclusions were made (to be checked when additional studies have become available):
  - o Head and leg are the most injured body regions
  - o Child head mostly injured by the top surface of the bonnet
  - Adult head mostly injured by the windscreen glass but with the windscreen frame / A-pillar and top surface of the bonnet / wing as additional important sources
  - o Adult leg mostly injured by the bumper
  - o 40 km/h as limit for the car to pedestrian crash speed
- Additional possible research sources were offered by
  - OICA: PMHS data, computer simulation, full scale tests especially taking into account new vehicle categories, VDA/TNO2 study
  - o EEVC: working on a plan; not ready by the end of 2003 but will be ready by 2005
  - IHRA schedule:
    - Head requirements expected to be finalised this year
    - Leg requirements to be finalised by 2005 but will try to speed it up to be ready by Spring 2004 in order to include it in the draft GTR.
- Test method: Sub system tests are the best way forward but simulation could offer additional possibilities. France will check how simulation can assist in determining limits, validation of test results, ...
- Technical feasibility
  - OICA gave a first input based on the IHRA study (dealing with the head only). This will need further discussion and updating.
  - o All attendees are requested to provide information if available.

# 2.4. CONTENTIOUS ISSUES

- Decide on vehicle categories that need to be addressed
  - Vehicle shape is important. The shapes specified by IHRA can serve as basis and it needs to be checked how light trucks / vans / exotic shapes can be included (if not included yet). If additional shapes are identified to which the sub system tests have not been validated, this should be mentioned in the preliminary report.
  - Take into account the work of the GRSG Common Tasks group.
- Include suggestions on active safety in the preliminary report
- Try to assess the importance of the secondary impact by using accident data and maybe by using simulation
- Make sure the leg test has no negative effect on the child
- HIC limit to be either 1000 or different (higher); if higher a very good justification will be needed.

## 3. NEXT STEPS

The informal group will hold its next meeting on January 15 and 16, 2003 at IDIADA in Spain. A preliminary report to be presented to the 33<sup>rd</sup> session of GRSP in June 2003.