



# European Enhanced Vehicle-safety Committee Status Report

20th ESV Conference  
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Chairman of EEVC



# EEVC

- Created in October 1970
- Member countries: France, Germany, Greece, Italy, Netherlands, Poland, Spain, Sweden, United Kingdom
- Participation of E.C. and ECE/WP29/GRSP

# Working Group Activities

- Advanced Anthropometric Crash Dummies
- Side Impact Protection
- Car Crash Compatibility and Frontal Protection
- Pedestrian Protection
- Child Safety
- Protection in Rear Impact
- Accident Studies
- Virtual Testing

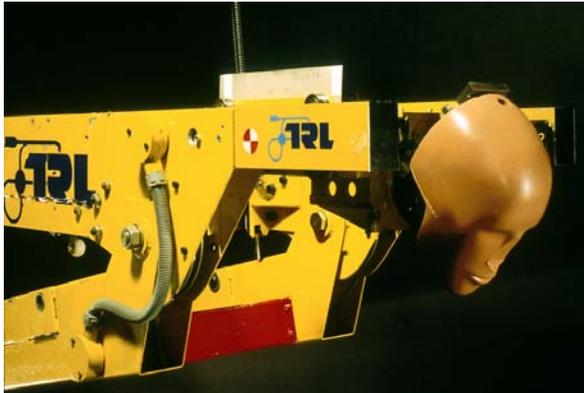
# Anthropometric test device



- Concerns for THOR dummies harmonization
- Evaluation of Rear Impact dummies just completed
- Follow-up of WorldSID programme
- Development of injury risk curves for child Q series dummies

# Side Impact protection

## New mandate



- Evidence review : accident review and prospective on new technologies effects
- Review of ECE R95
- Propose additional researches for non struck side occupants
- Review IHRA proposal for pole test
- Analysis and (if needed) refine EEVC interior surface test procedure

# Compatibility



FWDB test



PDB test

- Final report on frontal compatibility
- The two procedures (FWDB and PDB) are evaluated
- EEVC is not in position to select one
- A new mandate in preparation

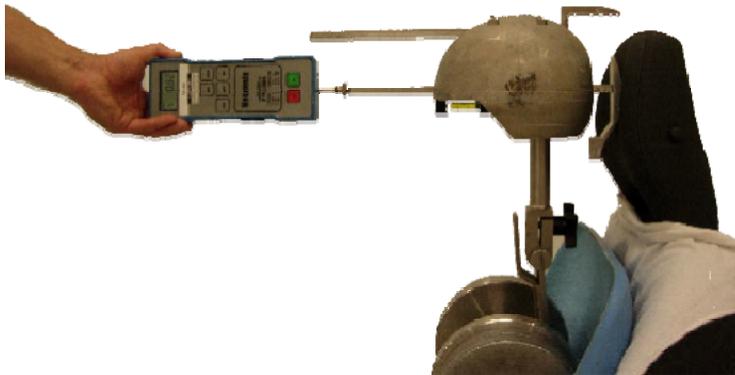
## ■ Pedestrian safety

- To avoid interferences with the GTR and the phase II of the E.U. regulation, this working group is temporarily closed

## ■ Child protection in cars, buses and coaches

- A final report is available
- Advantages / limitations of Q series dummies described
- Child protection in side impact discussed
- Links with the E.U. Child project

# Rear Impact protection and whiplash injuries



- Static test procedure for head restraint geometry
  - Test procedure developed
  - Evaluation against repeatability and reproducibility
  - Results reported to the GTR
- Dynamic geometric test procedure
  - Work started 9 months ago
  - A preliminary draft available soon
  - No assessment of injury risk
- Dynamic injury assessment test procedure
  - Developed in parallel
  - Choice of main parameters done
  - A preliminary draft available this summer

# Accident studies

- Support to other WGs
- An audit of 46 existing accident data bases done
- A pilot study on side airbag effectiveness combining 3 databases completed
- An analysis of lower extremities injury patterns performed
- An analysis of circumstances of accidents with neck injuries completed
- A large and detailed analysis of side impact accidents in progress

# Virtual Testing



Figure 1 - Example of real and simulated frontal crash with up-to-date Finite Element simulation code  
 (<http://www.esi-group.com/SimulationSoftware/NumericalSimulation/index.html>)



**PRISM MPV MADYMO Model**

Final report of a feasibility study available. It contains :

- State of the art on V.T. related to safety
- Expected benefits of the introduction of V.T.
- Review of recent projects related to V.T.
- Description of other groups dealing with V.T.
- Possible mandate for a 3 years programme.

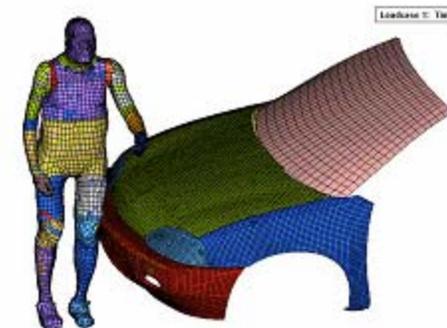
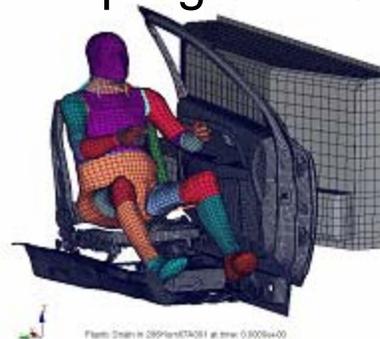
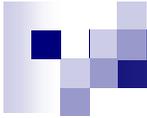


Fig. 5 - Simulation of a car occupant in side impact (left) and of a pedestrian (right) with the HUMOS2 50th male model.

# Future activities

- Several groups will work with new Terms Of Reference including a road map
- EEVC is convinced that there is a need for International Coordination/Cooperation in the field of vehicle safety preregulatory research
- EEVC will continue to work to set up an international forum for vehicle safety research



# Thank you !

