

Informal document No. **GRSP-34-22**

(34<sup>th</sup> GRSP, 8-12 December 2003,

Agenda item A.6.)

# European Enhanced-safety Vehicle Committee

## EEVC PROGRESS REPORT FOR GRSP

(December 2003)

# EEVC Structure

- ✓ Founded in 1970
- ✓ Governmental Body
- ✓ Membership : France, Germany, Greece, Italy, the Netherlands, Poland, Portugal, Spain, Sweden and the United Kingdom
- ✓ Steering Committee (with EC & GRSP representatives)
- ✓ Working Groups to report to S.C.

# EEVC Aims

- ✓ Identify Possible Progress in Vehicle Safety
- ✓ Carry out/Coordinate Research to Determine the Best Way Forward
- ✓ Demonstrate Practicality and Develop Appropriate Test Procedures

# Working Group Activities

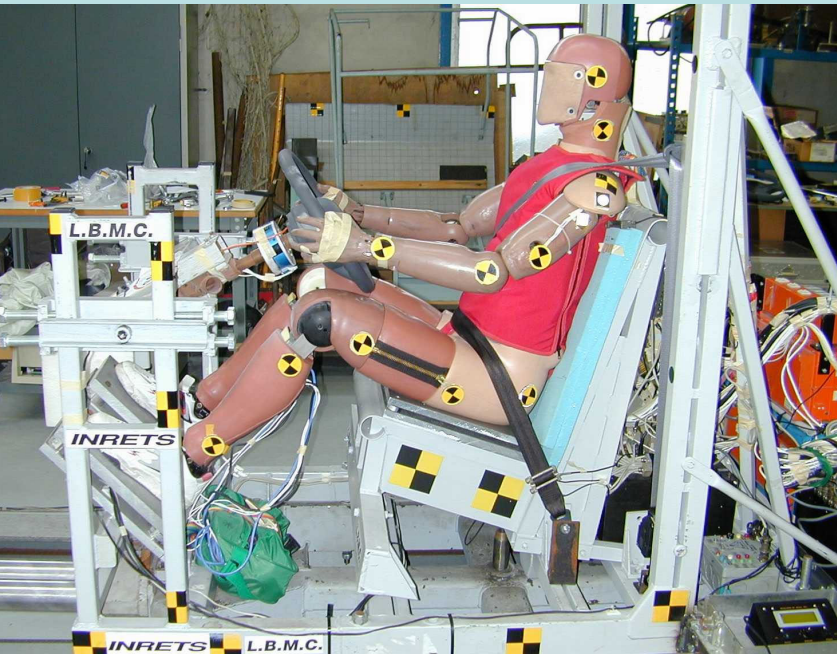
- ✓ Advanced Anthropometric Adult Crash Dummies
- ✓ Side Impact Protection
- ✓ Car to Truck Underrun
- ✓ Car Crash Compatibility and Frontal Protection
- ✓ Pedestrian Protection
- ✓ Child Safety
- ✓ Interaction between Active and Passive Safety
- ✓ Protection in Rear Impact
- ✓ Accident Studies (support group)
- ✓ Virtual Testing

# Advanced Anthropometric Crash Dummies



- ES2 completed and validated
- ES2 proposed to EC and ECE for inclusion in regulations
- ES2 under consideration by NHTSA and other countries

# Advanced Anthropometric Crash Dummies



- Work to improve the frontal THOR dummy
- Report on whiplash injuries
- Contribution to IHRA biomechanics

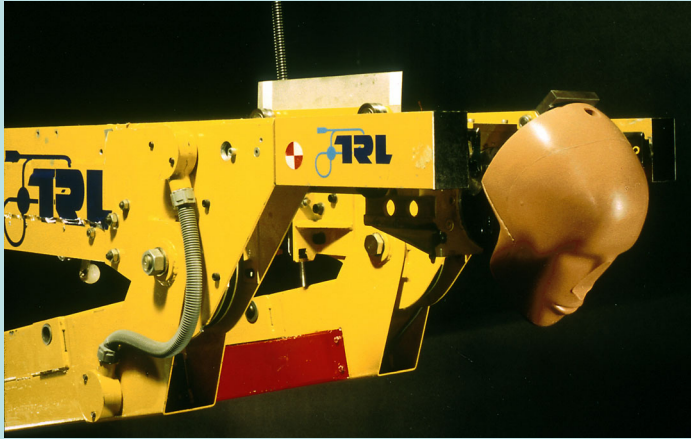
# Side Impact Protection

- Interior head impact test procedure

- Revised specifications of EEVC MDB to be used in ECE-R95 (Completed)

- Advanced European MDB discussed in IHRA

- Supports 2 designs of MDB (cars and large SUV)



# Car to Truck Underrun



- Work supported by EU project "VC-Compat"
- To propose a test procedure and associated performance criteria
- Cost/Benefit evaluation of improved compatibility



# Car Crash Compatibility

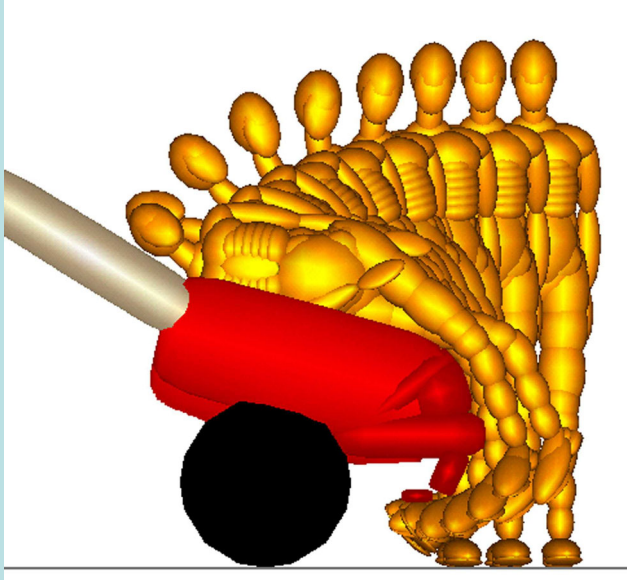


- Accident analysis to determine parameters related to compatibility
- Car Geometry Analysis
- Benefit Analysis
- Crash test procedures to assess compatibility

## Frontal Impact Protection

- Footwell intrusion
- Seat belt reminders

# Pedestrian Protection



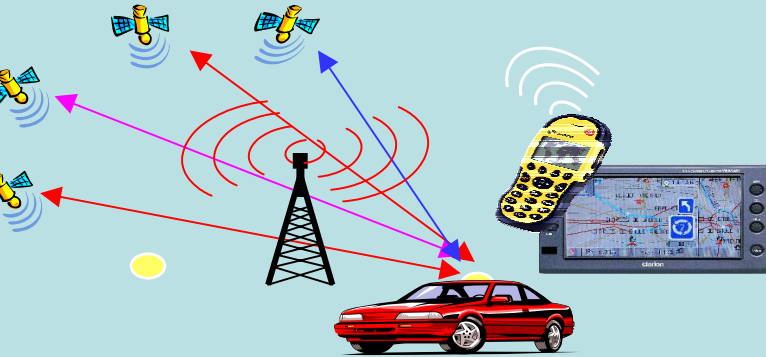
- Step following 1998 report
- Windscreen area test method
- New technologies (including virtual testing) for protection assessment
- Contributions to IHRA - PS
- Co-operation with GRSP ad hoc group

# Child Safety

- Accident studies for cars and buses
- Dummies biofidelity
- State of the art on legislation
- Questions related to ECE R44



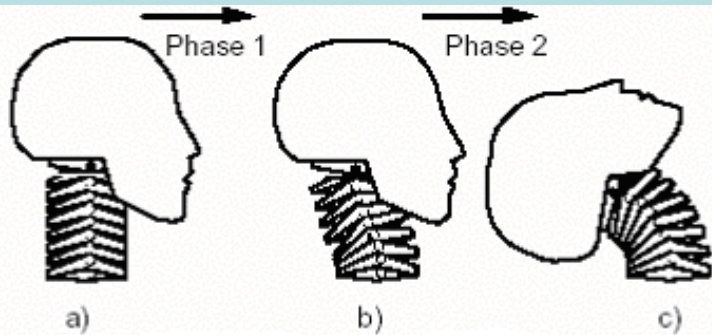
# Active/Passive Safety Interaction



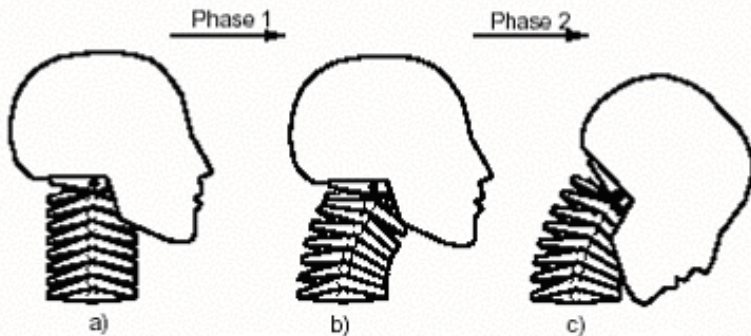
- State of the art description  
(1 year)

- existing and future techniques
- effect of these techniques on injury priorities
- relation to existing regulation

# Protection in Rear Impact



**Head/Neck motion in rear end impact**



**Head/Neck motion in frontal collision**

- Develop a test procedure
  - test conditions based on accidents
  - biofidelic dummy for neck injury assessment
  - protection criteria for neck injuries

# Accident Studies

- ✓ Monitor Developments in Advanced Safety Systems, Determine their Efficacy Using Existing Databases
- ✓ Recommendations for Future EEVC Researches
- ✓ Identify Areas of Poor Quality Data and Make Proposals to Improve
- ✓ Links with EEVC WGs

# Virtual Testing

- ✓ Identify Areas where Virtual Testing would Improve Test Procedures
- ✓ Establish Complementarity between Virtual and Crash Tests
- ✓ List the Questions to be Solved Before the Introduction of Virtual Testing (Report in 1 year)

# Conclusions

- ✓ EEVC is an independent body.
- ✓ EEVC proposals used by legislative bodies and industry in Europe.
- ✓ EEVC is preparing the future for car safety assessment.
- ✓ EEVC continues to support International Harmonisation for Vehicle Safety Requirements.



THANK YOU

[www.eevc.org](http://www.eevc.org)