Update on Chest and Abdomen Injury Criteria Task Force

50th Meeting GRSP Informal Group on CRS
Introduction

• A task force on chest and abdomen injury criteria for Q dummies started in April 2013
• Members of the task force are: ADAC, BASst, BMW, Britax Römer, Dorel, EC/TRL, Humanetics, IFSTTAR, INSIA, LAB, MH Hanover, PDB, TU Berlin, UTAC, VFSB, VTI
• Objective of the task force is to deliver scientific based recommendations for GRSP and EEVC w.r.t. performance criteria for the chest and abdomen of Q dummies
• No global funding for the group available
Achievements

• Analysis of belt slippage behaviour
• Development and implementation of additional upper chest deflection sensor for Q3 and Q6 (available at 4 labs)
  – Q10 already with upper sensor and smaller dummies not expected to be used with boosters
Achievements

• Analysis of abdominal loading behaviour in Q3, Q6 and Q10
• Agreement on additional equipment to improve abdomen loading behaviour
• Agreement on APTS sensors
• Definition of reconstruction test programme for injury risk curve development
Current Status

• Three reconstruction tests with 4 Q dummies completed
• Two additional tests already scheduled
• Reconstruction programme delayed due to Sensor development phase that was originally not expected
Current Status

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Legend:
- Green: successfully completed
- Red: not successful
- Light green: not selected
- White: already selected
- Light blue: considered but not confirmed
Current Status

• For reliable development of injury risk curve at minimum 10 reconstruction cases with AIS 0 – 2 and 10 cases with AIS 3+ injuries are needed

• Up to now there
  – 3 cases for chest (2 AIS 0-2; 1 AIS 3+)
  – 4 cases for abdomen ( 3 AIS 0 – 2; 1 AIS 3+)

• Based on the current progress and the commitment of the partners the task force will likely fail to complete the programme by the end of 2015
Current Status

• Additional support urgently needed
  – Funding
  – Testing