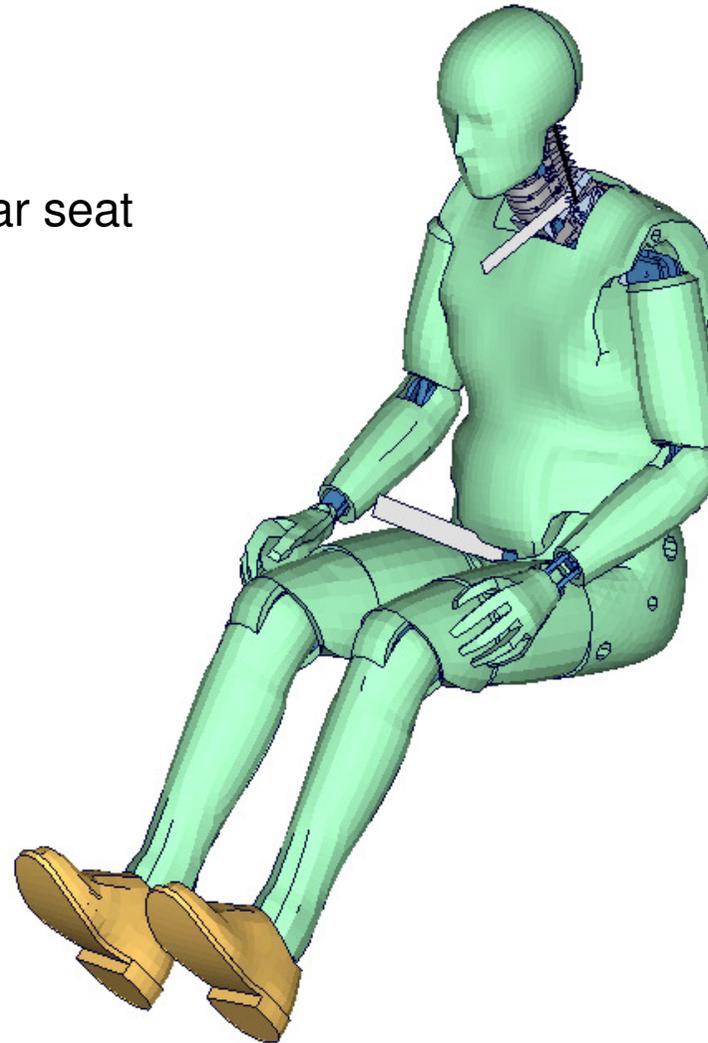


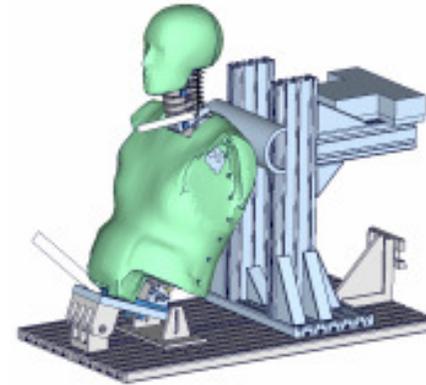
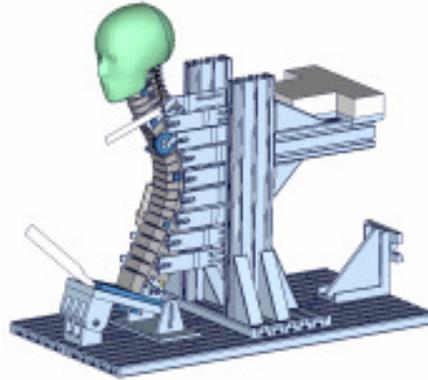
## Content:

- BioRID v2.5 (still available)
  - Extraction of results in an sports car seat
- BioRID v3.0 update
  - Planed changes in the Model

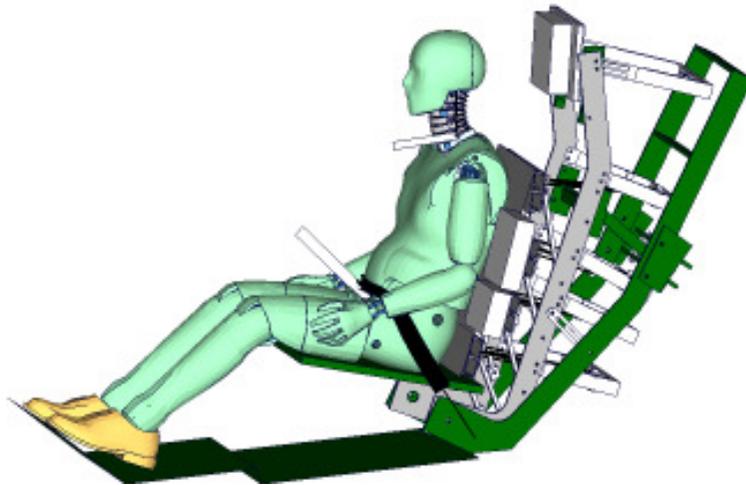


# BioRID v2.5 validation tests:

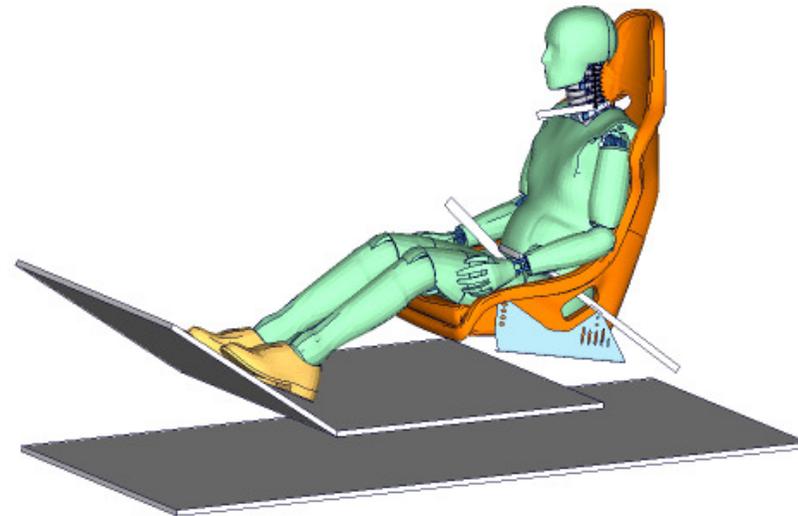
- Component tests:



- Simplified seat tests  
(full dummy validation BioRID v2.0)

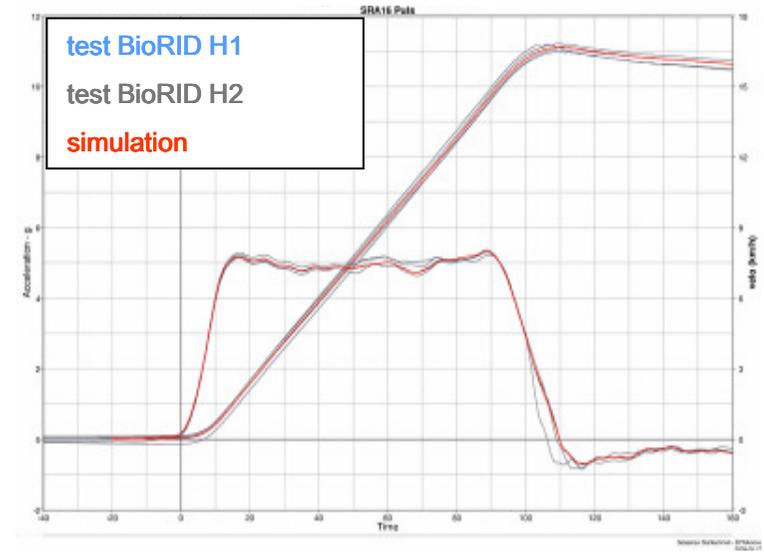
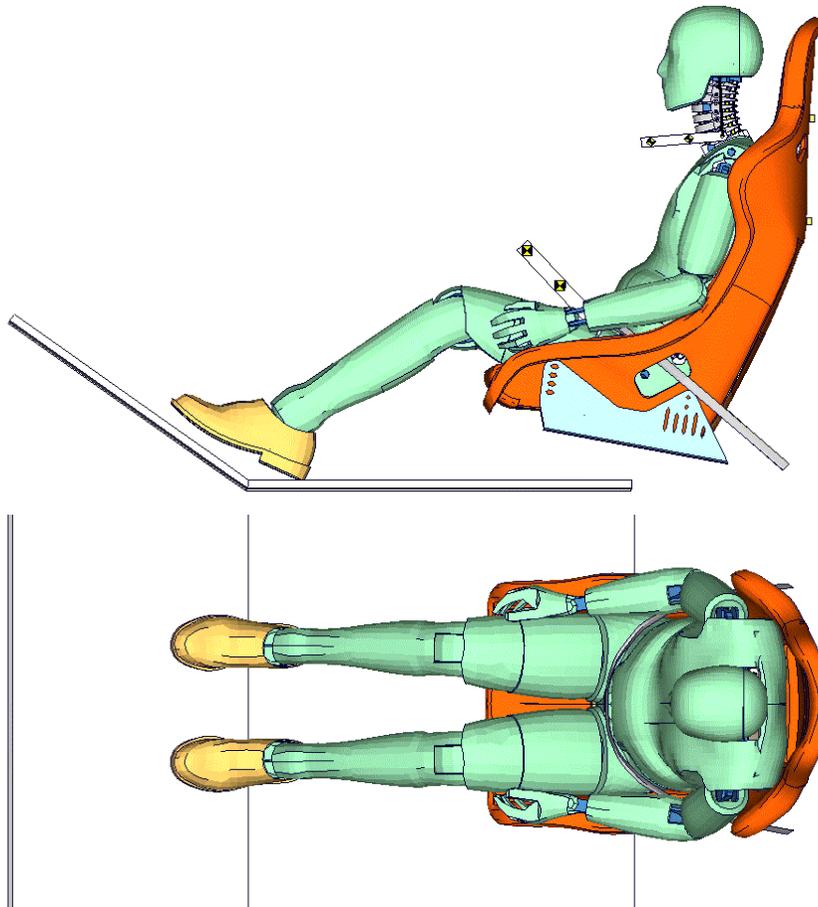


- Sports car seat tests  
(full dummy validation BioRID v2.5)

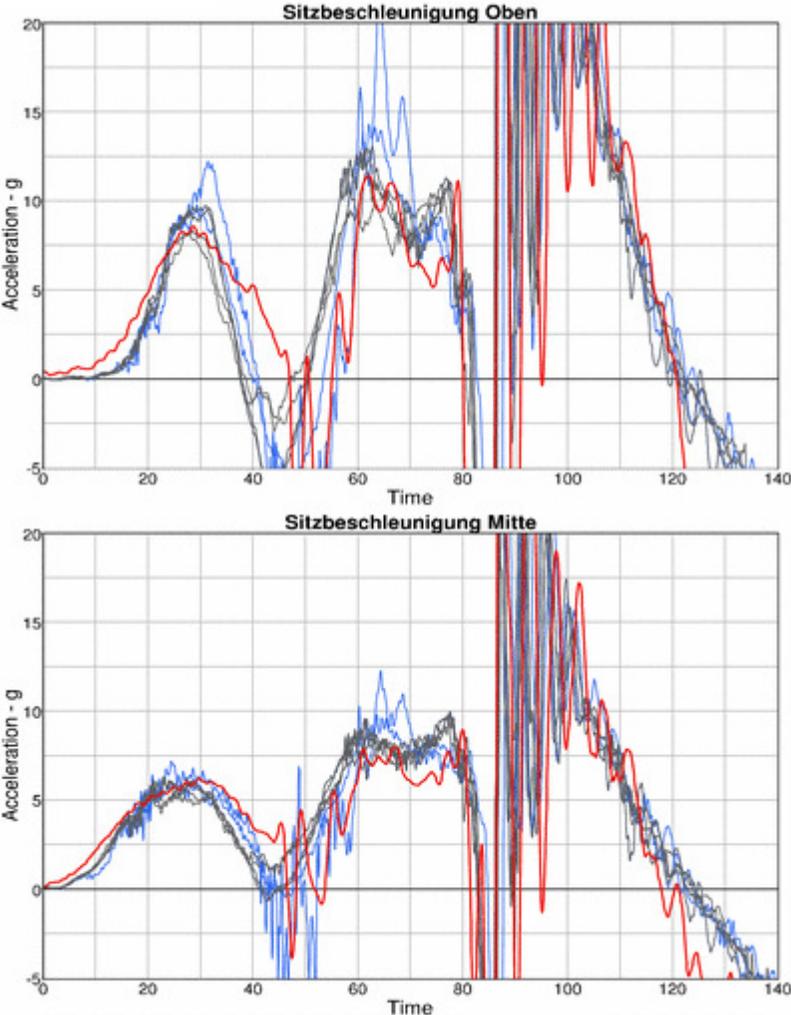
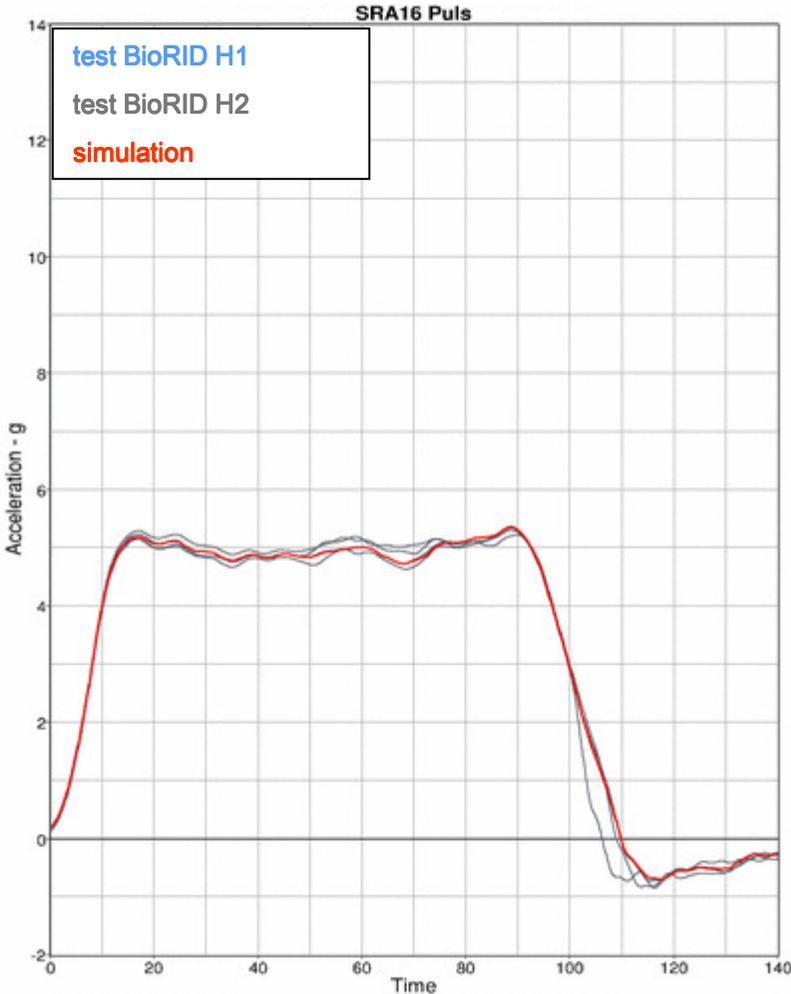


# BioRID v2.5 in sports car seat in use of the SRA16 Pulse:

- The sled is loaded by an 5 g trapezoidal pulse.

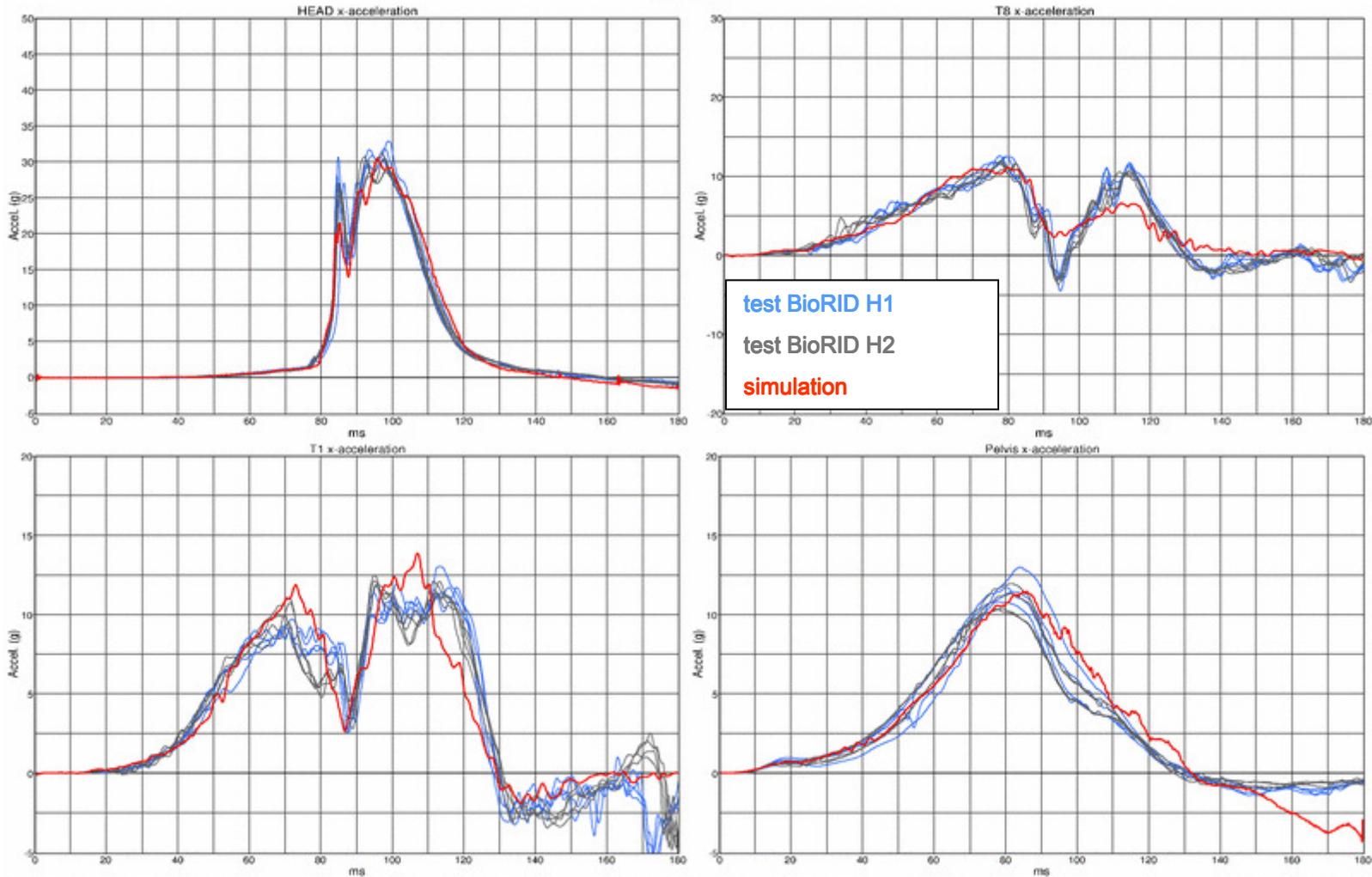


# Results of BioRID2: SRA16 pulse



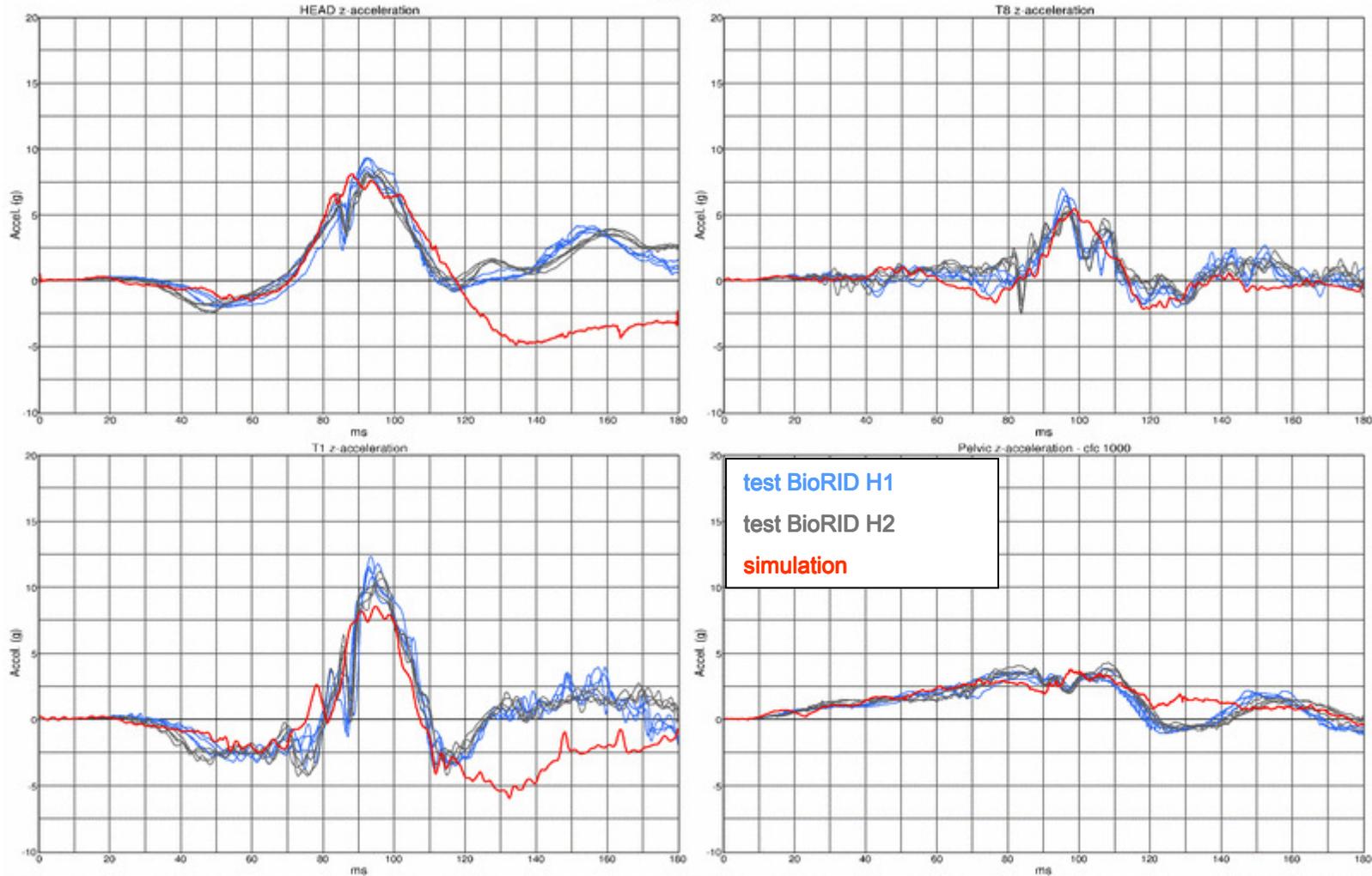
Sebastian Santenreich - DYNAmore  
2008-05-17

# Results of BioRID2: SRA16 pulse



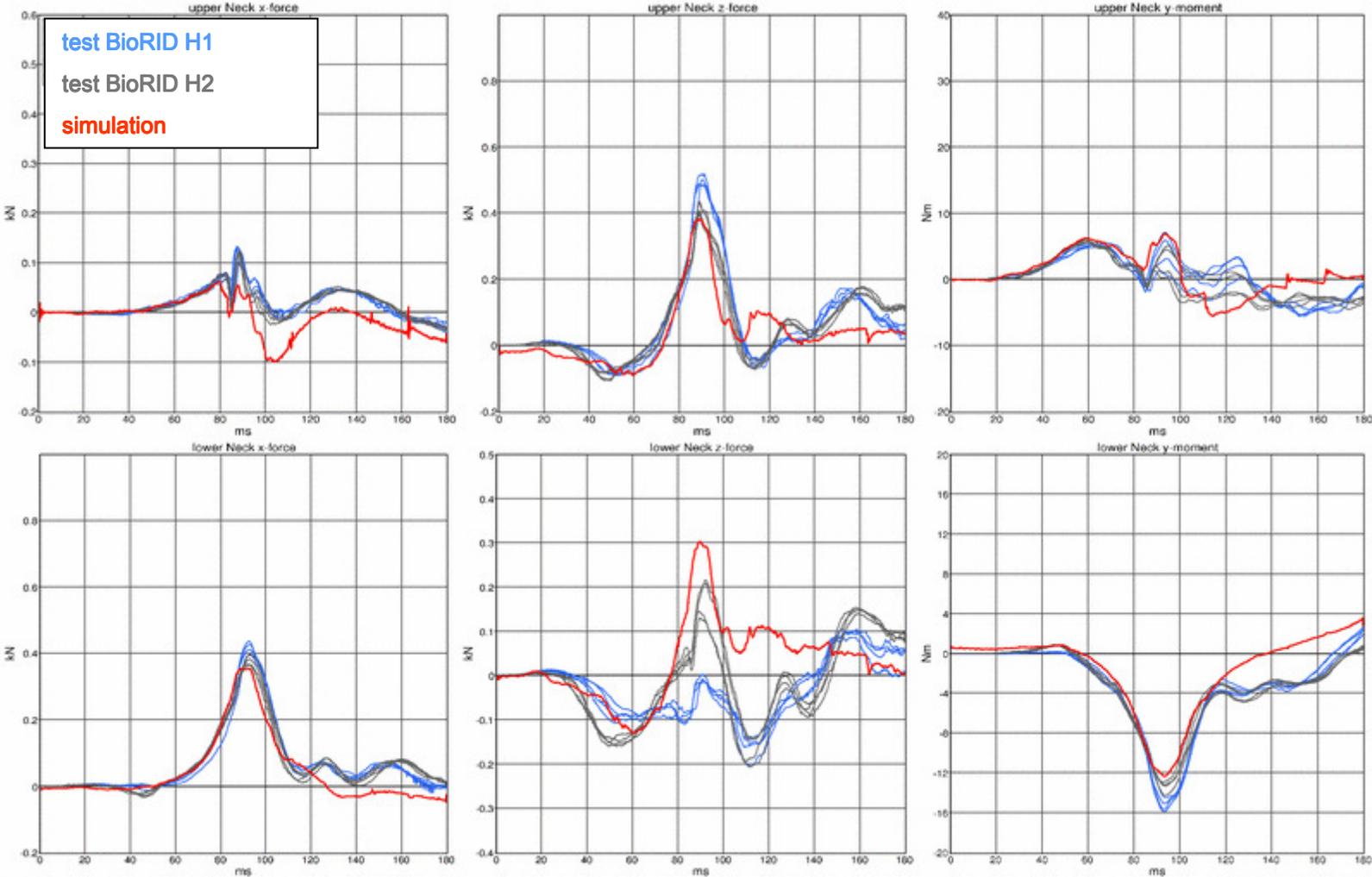
Sebastian Sattelmair - DYNAmore  
2008-05-17

# Results of BioRID2: SRA16 pulse



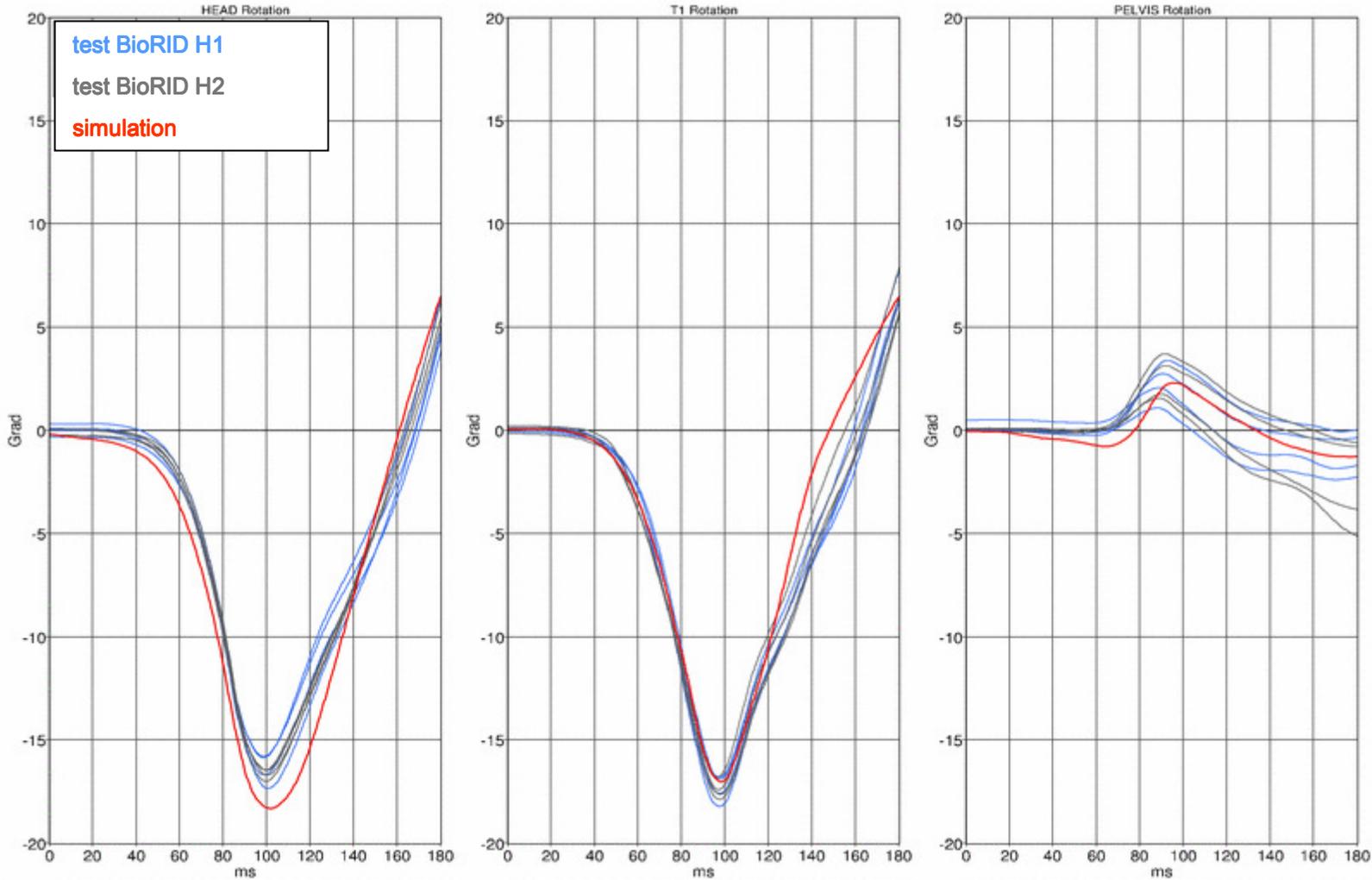
Sebastian Sanktschmid - DYNAmore  
2008-05-17

# Results of BioRID2: SRA16 pulse



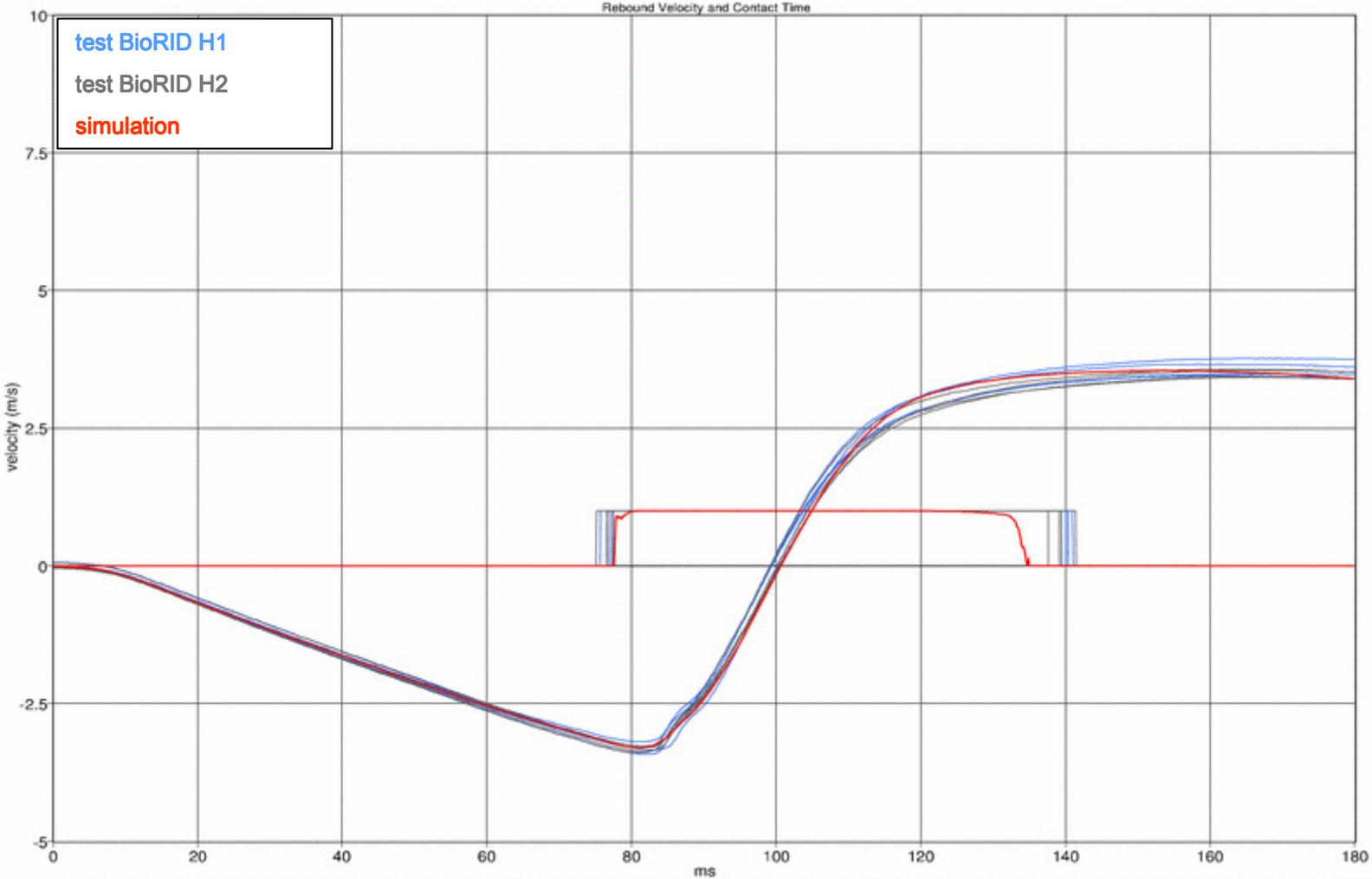
Sebastian Sankowski - DYNAmore  
2008-05-17

# Results of BioRID2: SRA16 pulse



Sebastian Santschmid - DYNAmore  
2008-05-17

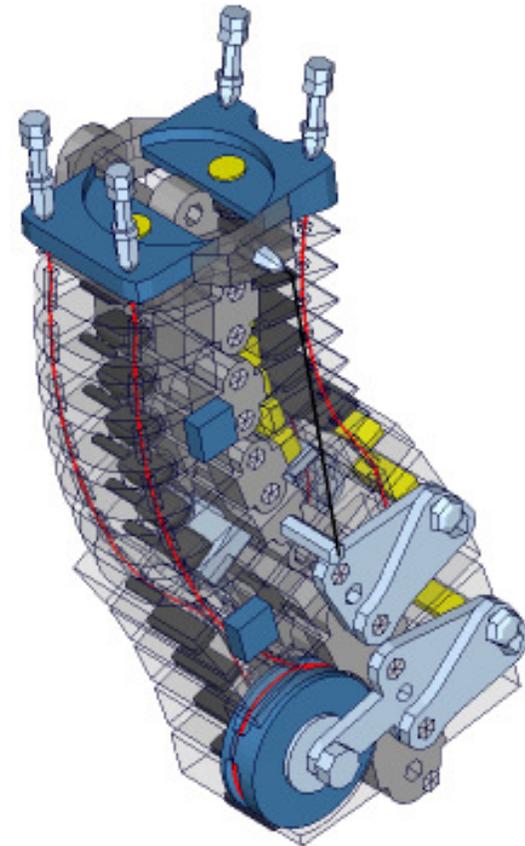
# Results of BioRID2: SRA16 pulse



Sebastian Sankowski - DYNAmore  
2008-05-17

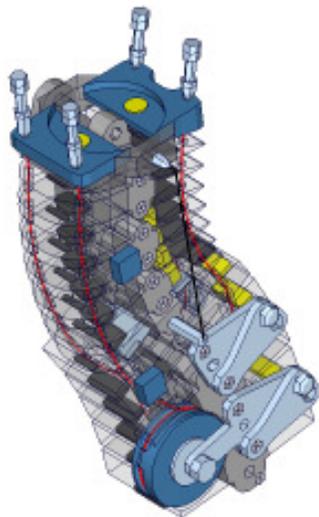
## BioRID v3.0 updates:

- The focus of the BioRID v3.0 update is on the usability of the model
- The current BioRID models use for the neck cable seatbelt elements and a lot of slip rings
- Due to positioning simulations in use of an full deformable BioRID model the seatbelt elements move through the slip rings because the neck is deforming
- For further simulations after this process all seatbelt elements must be meshed new, or repaired by using a small program



## BioRID v3.0 updates:

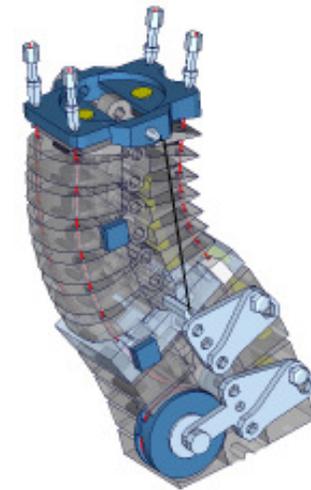
- For the BioRID v3.0 all seatbelt and slip ring elements should be removed from the model
- The cable is then modeled in use of normal beam elements which also provide a bending stiffness in the cable
- The cable is in an normal contact to the vertebrae and the cable path is backed by an CONTACT\_GUIDED\_CABLE



Seatbelt elements  
guided by slip rings

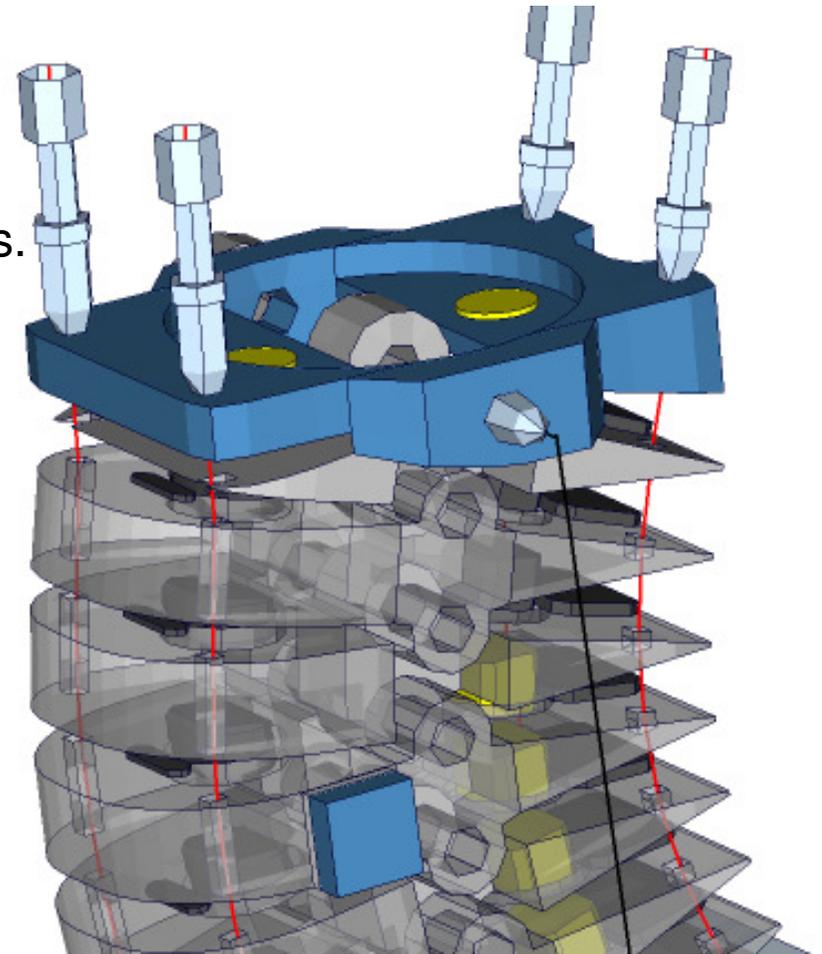


Beam elements  
guided by contacts



## BioRID v3.0 updates:

- Because of this modeling technique the BioRID tests have to be validated all over again
- The main component of the BioRID model is changed and the validation of the component tests is at the moment in progress.
- After the validation of component tests the full dummy tests are validated for the BioRID v3.0



## BioRID releases schedule:

- BioRID v2.5 is still available
  - Since November 2008
- BioRID v3.0 is still in progress
  - Planned for July 2010

