

The SET 50F and 50M

Prof Astrid Linder PhD, MSc

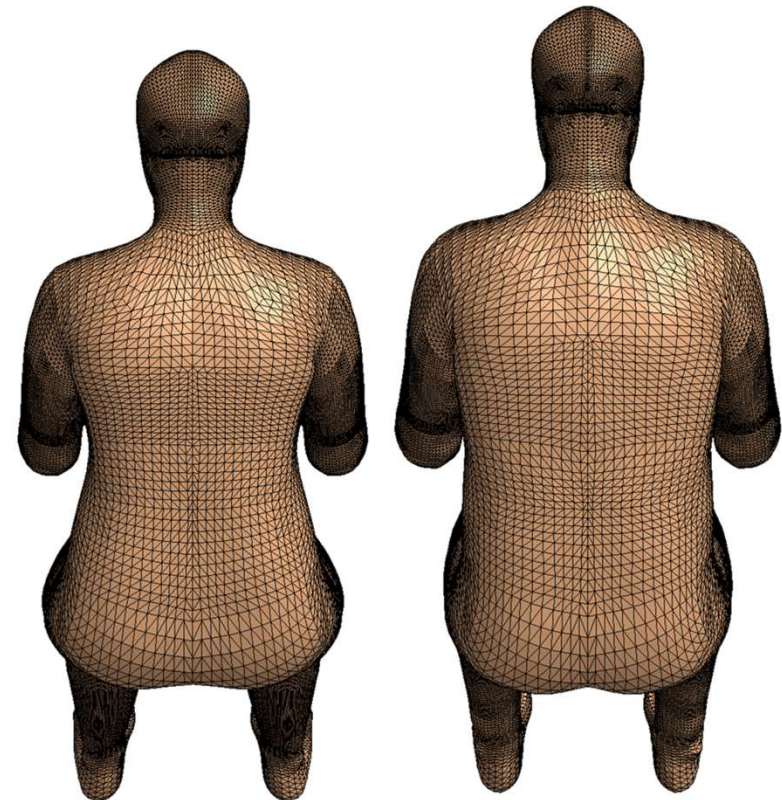
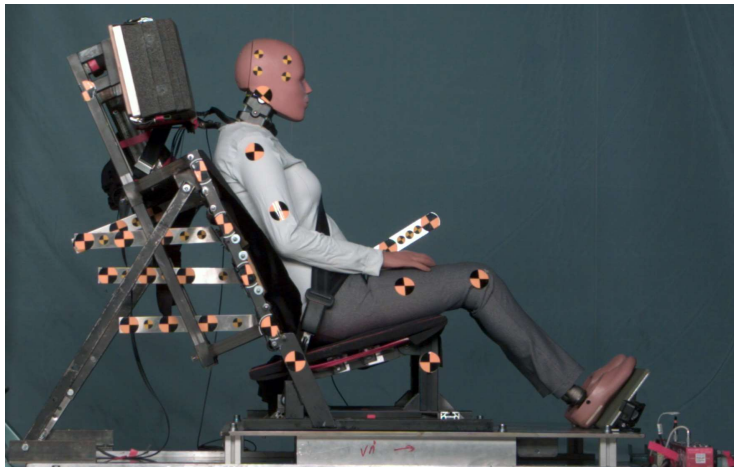
Adjunct Professor, Chalmers University

Swedish road and transport research institute

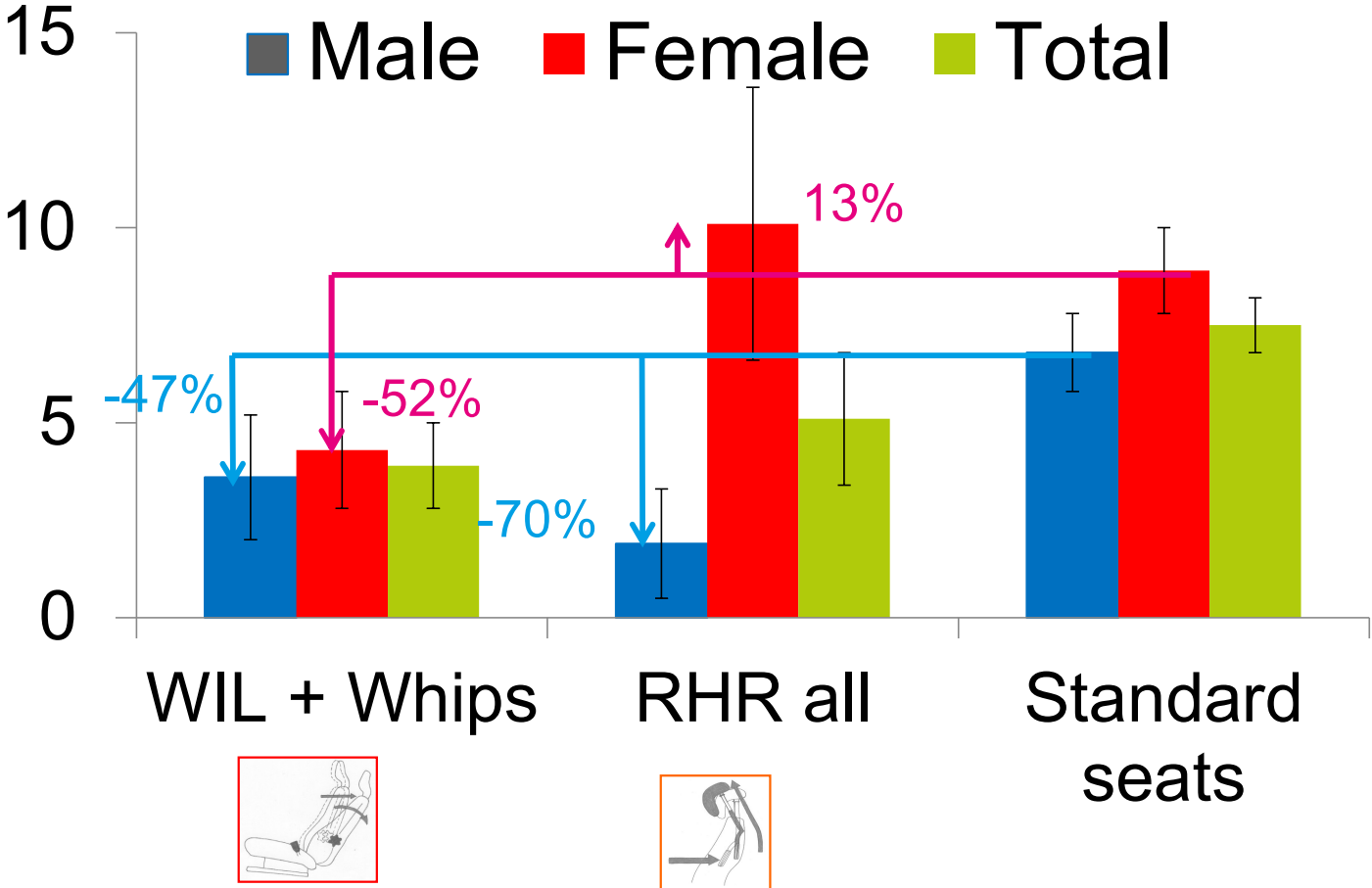
vti

EqOP workshop, Stockholm, 9 September 2024

Seat Evaluation Tool, SET 50F and 50M



Seat performance, risk of PMI (whiplash)



Ref: Kullgren et al. (2013) Development of Whiplash Associated Disorders for Male and Female Car Occupants in Cars Launched Since the 80s in Different Impact Directions, IRCOBI Conference.

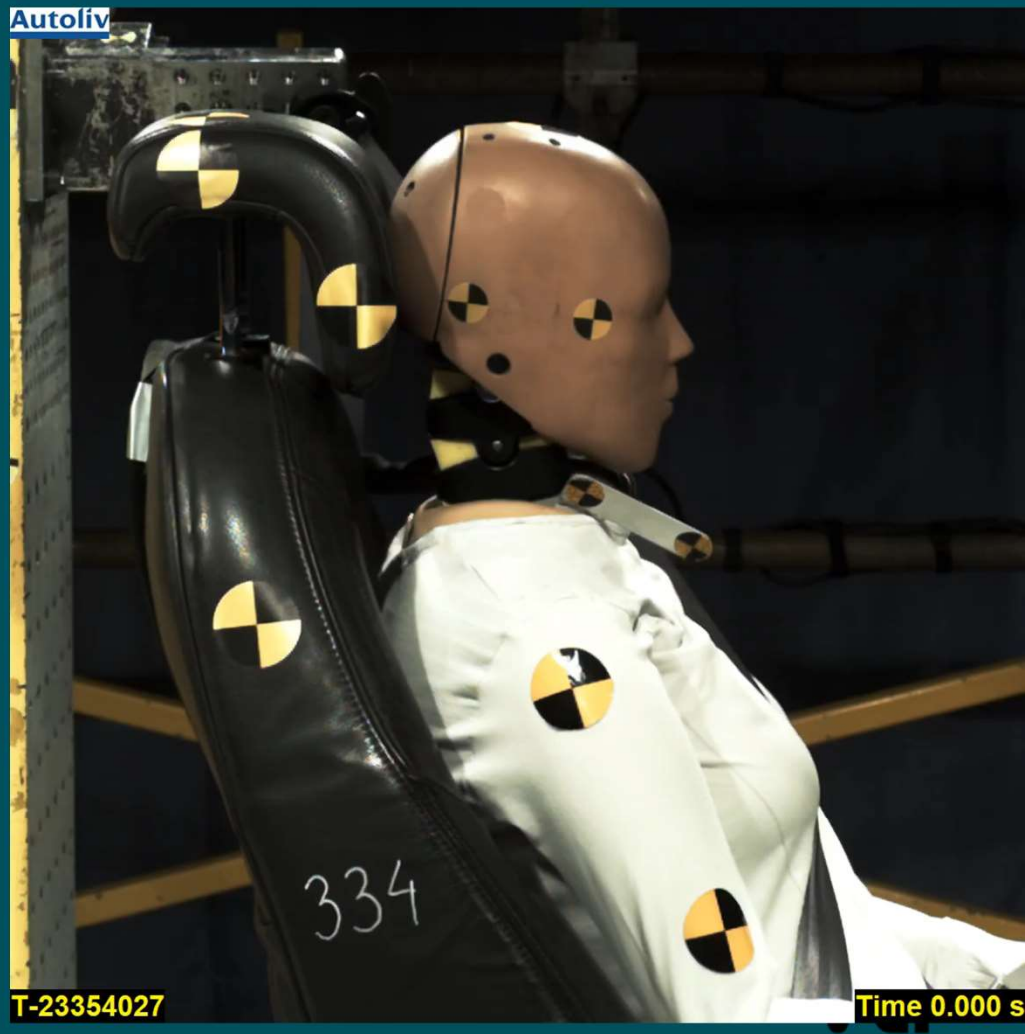
Tests with seats showing different injury protection performances

- Saab 9-3 98-02 and Audi A4 95-00

| Seat/car model | | | Folksam injury data – Females | | | | Folksam injury data – Males | | | |
|----------------|-------|-----|-------------------------------|-----|------|------|-----------------------------|------|------|------|
| | | | n | n | Risk | 95% | n | n | Risk | 95% |
| | | | n | PMI | PMI | CI | n | PMI | PMI | CI |
| Saab 9-3 | 98-02 | RHR | 163 | 7.8 | 4.8% | 3.3% | 80 | 0.0 | 0.0% | 0.0% |
| Audi A4 | 95-00 | - | 486 | 7.3 | 1.5% | 1.1% | 413 | 10.4 | 2.5% | 1.5% |

- Euro NCAP mid-severity pulse, 16 km/h
- SET v0.2 50F and 50M





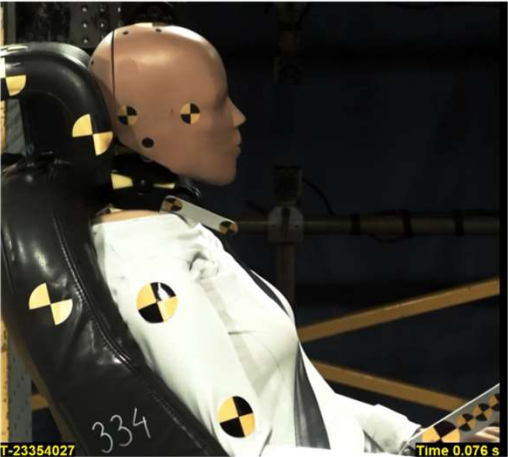
SET 50M, Saab

SET 50F, Saab

Initial position



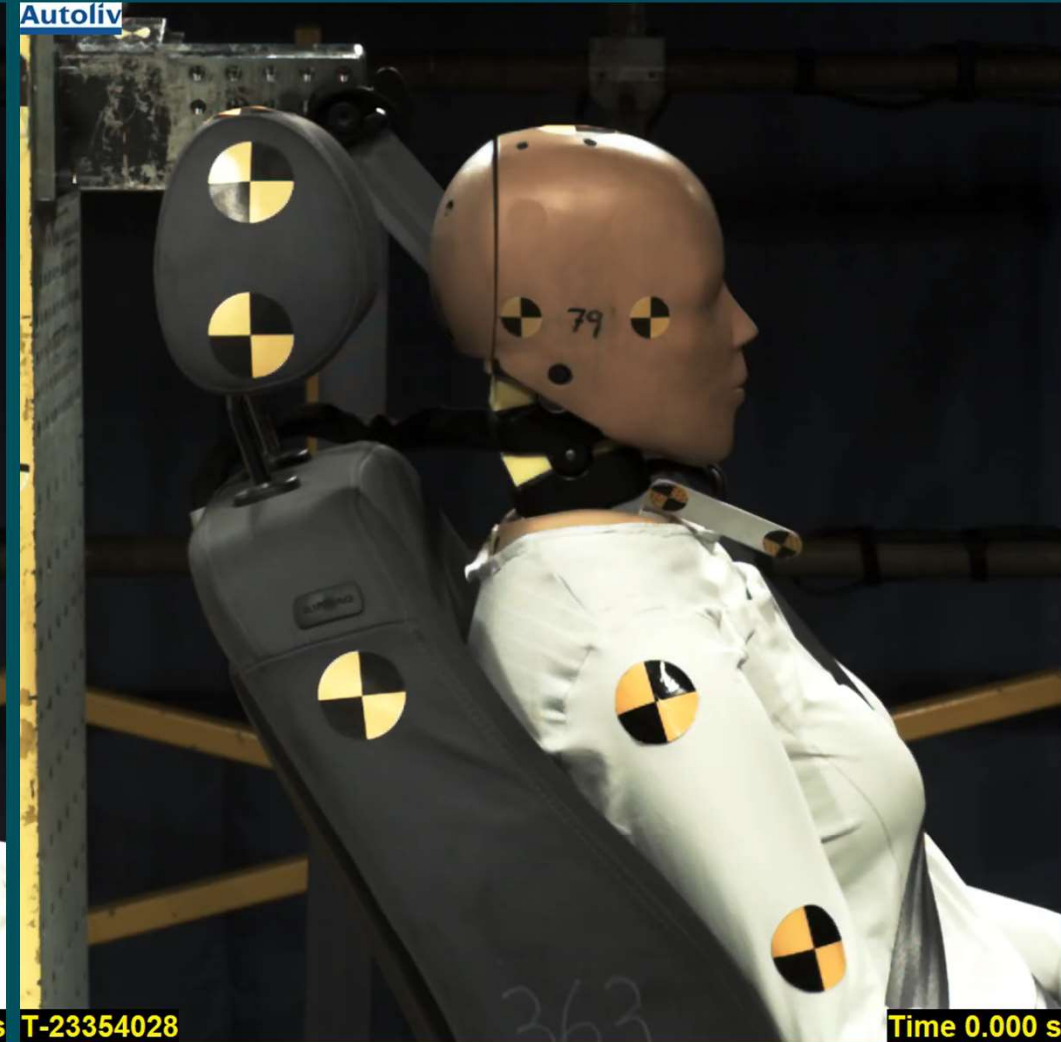
@ NICma x



Autoliv



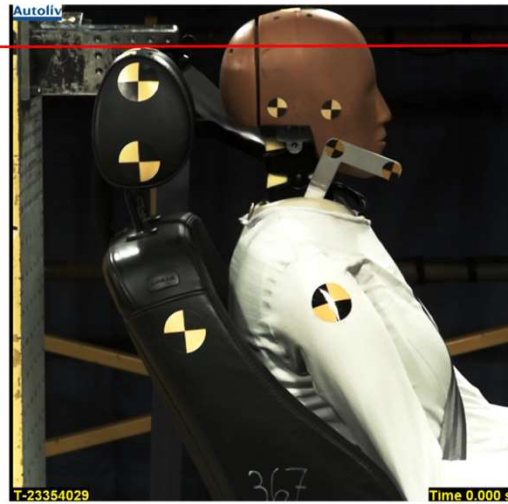
Autoliv



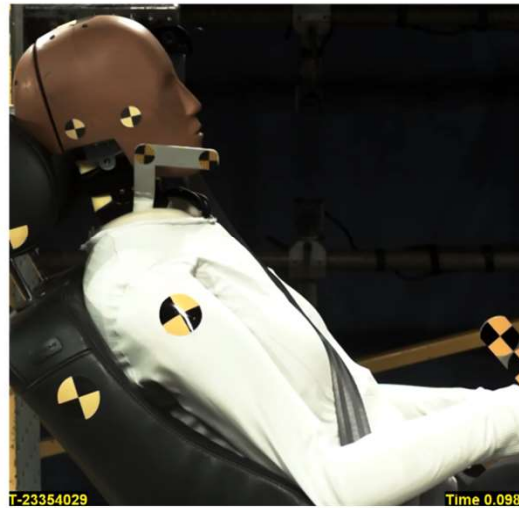
Audi, SET 50M

Audi, SET 50F

Initial
position



@
NICma
x



Thank you for your attention

Contact:
Astrid.linder@vti.se

