



# COMPUTATIONAL MECHANICS FOR PROGRESSIVE VEHICLE BODIES

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## DISCUSSION RESULTS

# QUESTIONS

## The VMAP data standard for simulation and measurement

Klaus Wolf – Fraunhofer SCAI

- Why/when does a simulation engineer need measurement data?

basis for material cards	real geometry vs. CAD -> effect on FEM	optimization, validation of virtual tests (FE, MKS, CFD, ...) calibration of material cards
validation of material cards	particle FEM	increased robustness in the design -> forecasting capability
understanding new materials	verification validation calibration	very early depending on requirements

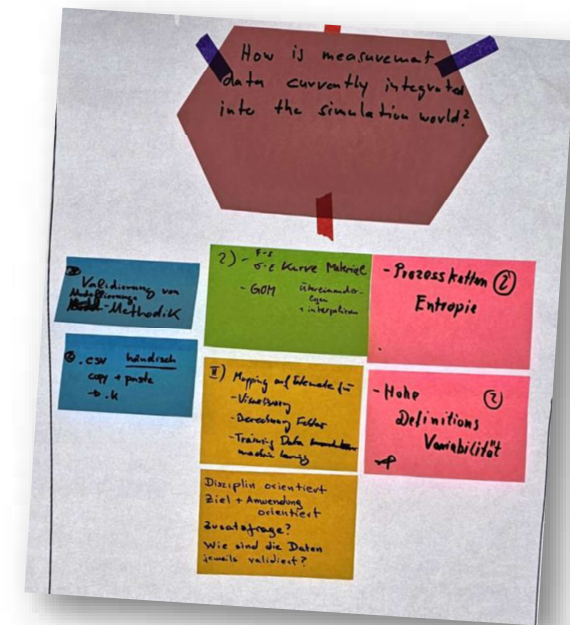
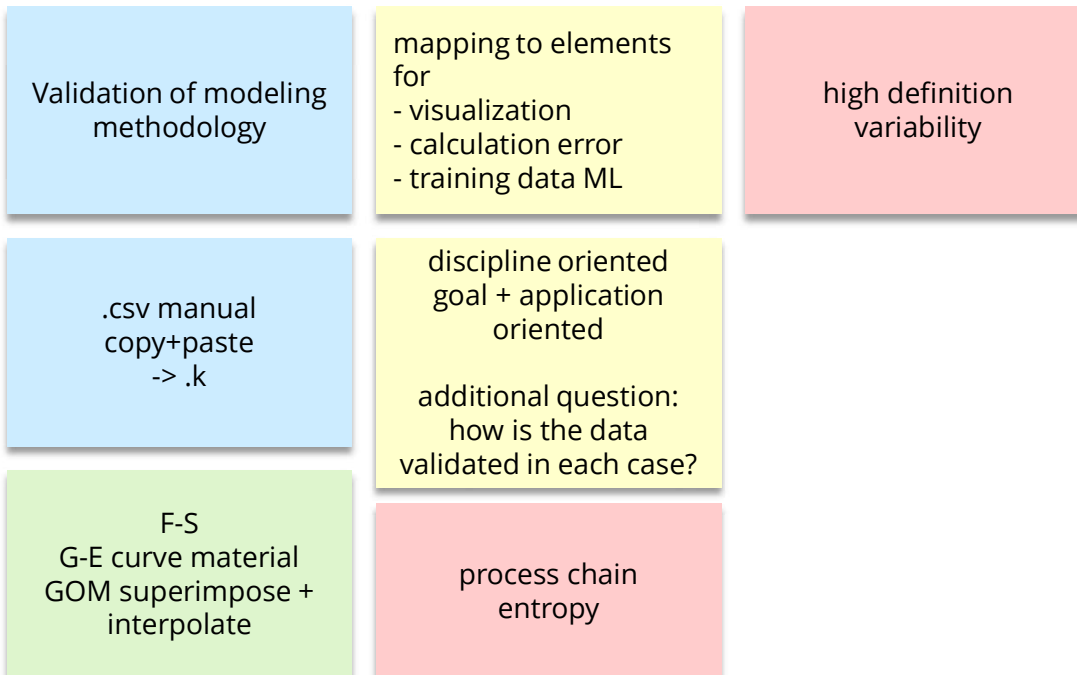


# QUESTIONS

## The VMAP data standard for simulation and measurement

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- How is measurement data currently integrated into the simulation world?



# QUESTIONS

## The VMAP data standard for simulation and measurement

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- What would be the benefits of having a unique format for both worlds?

reduced susceptibility to errors robust transmission	standardization between measurement and CAE difficult CAE is diverse	standardized libraries for interfaces	AI based structure • label • info
faster, simpler transfer	- quick replacement - simpler percentage structure - documentation	lower unit risk	• direct comparison test –simulation • error elimination • quick change mapping • time saving • simulation validation on the fly
understanding between designer and simulation engineer increases	test machine parameters -> automatic storage -> fix defined	reproducibility ensured	

