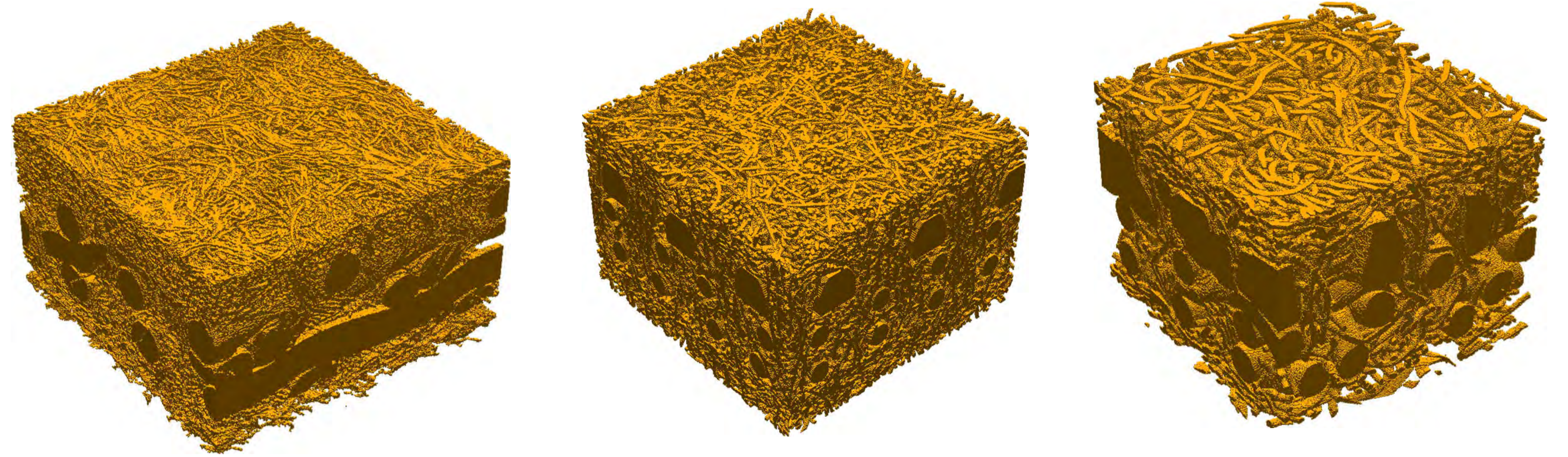


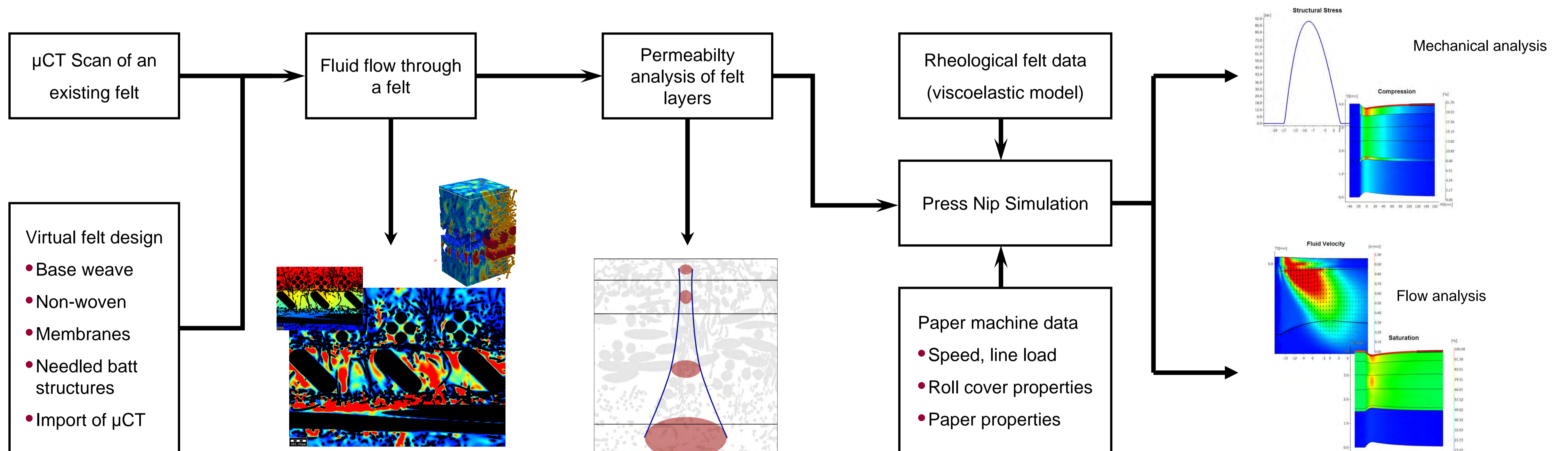
Objectives

- Virtual felt design
- Advanced analysis methods
 - Pore size distribution
 - Permeability analysis
 - Behaviour under pressure
- Simulation of the nip dynamics
- Understanding as basis for prediction

Virtual vs. Real

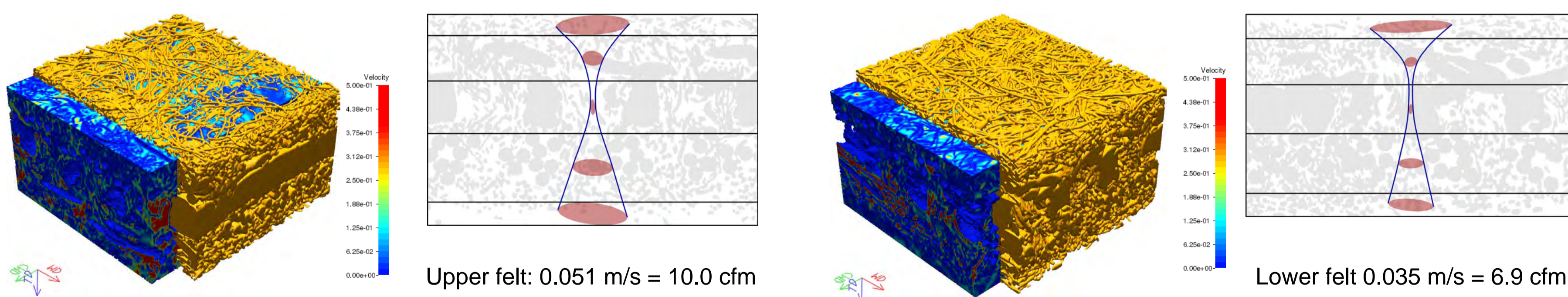


Process for a Press Simulation



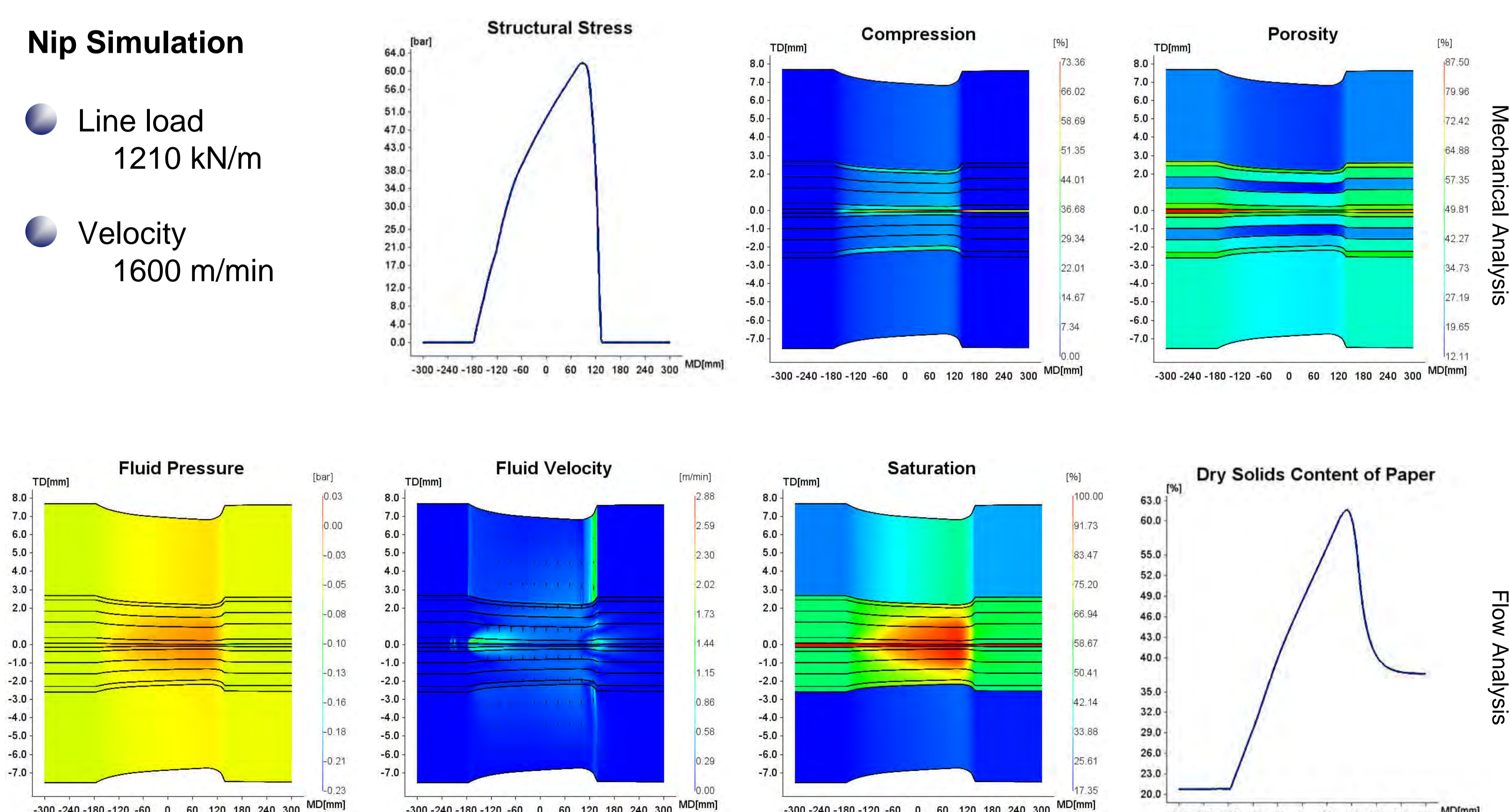
Example – Shoe Press

Felt simulation



Nip Simulation

- Line load 1210 kN/m
- Velocity 1600 m/min



Status

- New rheological model implemented
- Basic automation of
 - Layer detection
 - Fluid & permeability analysis
- Support of
 - Global Press development
 - Product management

Next Steps

- Enhance roll cover modelling
 - Rheological properties
 - Flow properties of different surface design
- More support of product management with more case studies
- Automated Process
 - Flow simulation & analysis
 - Permeability analysis with layer detection