# **AVL** Advanced Simulation Technologies

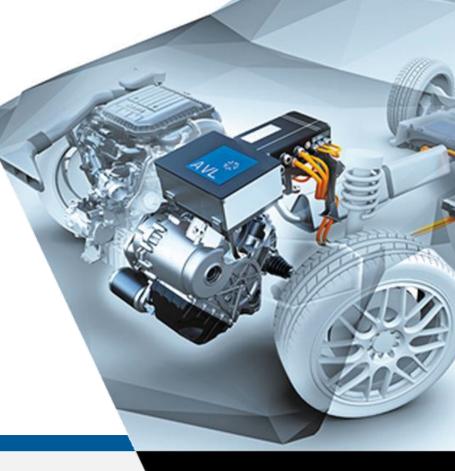


Powertrain and Driveline NVH, Durability & Efficiency

# 21st September 2016

Göteborg, Chalmers Teknikpark

With contributions from VOLVO Cars, VOLVO Trucks, SCANIA, and AVL Experts



# AGENDA

08:30 Welcome Coffee

## 09:00 ENGINE DYNAMICS & DURABILITY

Main Bearing Fretting Analysis Considering Out of Roundness Engine Dynamics applications with AVL EXCITE Fatigue evaluation of crankshaft using ANSYS + EXCITE

- 10:30 Coffee Break
- 11:00 Comparison between full and sliced engine model for main bearing analysis Oil Transport Simulation in EXCITE P&R
- 12:00 **Lunch**

### 13:00 FULL POWERTRAIN DYNAMICS

Simulation of an Engine Test Rig incl. DMF and drive shafts using EXCITE AVL EXCITE Transmission & Driveline: Latest Features (Advanced Gear, Roller bearing, E-Motor) Transmission Dynamics applications with AVL EXCITE

14:30 **Coffee Break** 

### 15:00 NVH & NOISE RADIATION

AVL EXCITE Acoustics: Latest Features

Acoustic radiation analysis, using excitation from crank train, piston slap and valve train simulations NVH Applications with AVL EXCITE

Closure



Hubert Herbst, **SCANIA** Thomas Resch, AVL Björn Rilbe, **VOLVO AB** 

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#### Urban Rönnqvist, VOLVO Cars

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