## **AVL** Advanced Simulation Technologies

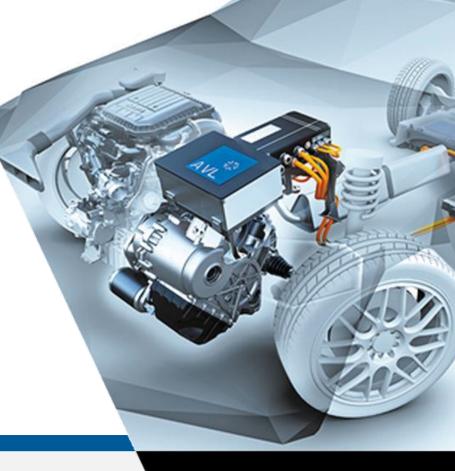


Powertrain and Driveline NVH, Durability & Efficiency

## 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 Integrated Thermal Analysis of Piston Assembly on a FCA Engine 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** Driveline Non-stationary Effects as Clutch Activation and Clonk Simulation of an Engine Test Rig incl. DMF and drive shafts using EXCITE
- 14:30 Coffee Break

## 15:00 NVH & NOISE RADIATION

AVL EXCITE Acoustics: Latest Features

Dynamic Simulation of HEV and EV Systems

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

16:30 **Closure** 



Hubert Herbst, **SCANIA** Gudrun Kreuzwirth, **AVL** Björn Rilbe, **VOLVO AB** 

H. Samuelsson, SCANIAA. Spencer, SCANIA

Gudrun Kreuzwirth, **AVL** Urban Rönnqvist, **VOLVO Cars** Gudrun Kreuzwirth, **AVL** 

Laurent Margerie, **AVL** Hans Johannesson, **VOLVO Cars** Laurent Margerie, **AVL**