



Founded in 1948, AVL is the world's largest independent company for development, simulation and testing technology of propulsion systems (hybrid, combustion engines, transmission, electric drive, batteries, and software) for passenger cars, trucks and large engines and their integration into the vehicle. With more than 70 years of experience, we develop and provide advanced solutions to the mobility industry. AVL continues to take on complex challenges and lead the way in the development and application of e-mobility, fuel cell, battery, and ADAS/AD technologies. We create tailored solutions in the areas of big data, artificial intelligence, simulation, and embedded systems in an agile and integrated development environment. Learn more at www.avl.com.

Simulation-based Approach to Battery Development

Waldemar Linares, Manager, Simulation Technologies, AVL

Batteries are the key differentiator between the various xEV manufacturers. Adoption of virtual development has become crucial in overcoming the challenges associated with battery-powered systems. Understanding and optimizing performance, efficiency, hazard prevention and lifetime of a battery in a virtual environment is key to increasing the quality of new vehicle development. During this presentation Dr. Waldemar Linares will show how AVL's Virtual Battery Development approach is used to overcome the most challenging tasks such as, cell modelling, fast charging, aging and cooling and thermal runaway event.