AVL

- Founded 1948 in Graz
- About 6650 employees worldwide
- The world's largest independent company for the development of powertrain systems with internal combustion engines as well as instrumentation and test systems.
- Portfolio: development of powertrain systems, simulation, engine instrumentation and test systems

AVL Software and Functions

- Founded in July 2008
- Meanwhile about to 170 engineers
- Team structure is characterised by a large number of very experienced engineers
- Portfolio from prototyping to serial solutions
- Development focus is system integration, algorithm and software design, electronics and testing
- 100% integrated into the worldwide AVL network
- see also: **`www.avl-functions.de`**

AVL
Experiences, Application Know-How

Experiences:

- **E-Mobility Controls:** Battery Management Systems, E-Motor Controls, Vehicle/Hybrid Controls
- **Combustion Controls:** Gasoline Engine Management, Diesel Engine Management, Exhaust Gas Aftertreatment
- **Safety Systems:** Monitoring Functions, Functional Safety
- **Electronics development :** Power Electronics, Control units

AVL Software and Functions

- develops **basic and application software**,
- supports implementations of **functional safety concepts**,
- develops **electronic hardware** for automotive applications

from prototyping till series-production.

AVL
Basic Support for AUDO MAX, AURIX

AVL provides Basic Support for the Infineon Aurix Controller Family to ensure successful development of customer's application with AUDO MAX, AURIX microcontroller family

- for Hardware issues incl. voltage supply etc.
- for Software issues especially when using the Infineon MC-ISAR packages
- for safety issues especially when using Infineon PRO-SIL™ SafeTcore / SafeTlib

AVL provides Basic Support as technical interface to the customer and to drive the design at the customer

- as email-Hotline, 24 hours response time for business days guaranteed: **PDH@avl.com**
- as telephone hotline
- in Western Europe and Russia: Austria, Belgium, Bulgaria, Croatia, Cypris, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Swiss, Russia, United Kingdom

AVL
Premium Support Packages for AUDO MAX, AURIX

- **Basic Software Driver Development**:
  complex drivers, tailor-made drivers, custom-made to the special needs of the customer and the application, optimizations to the Aurix controller
- **Basic Software MCAL MC-ISAR configuration**:
  optimized to customer needs and application
- **Hardware Support Schematic**:
  power supply concept, design of input and output circuits of the Aurix controller, design of oscillator circuit, watchdog concept, protection circuits
- **Hardware EMC Support:**
  circuit design for Aurix controllers acc. EMC, layout rules for a good EMC design, EMC simulations, filter design for Aurix controller
- **ISO 26262 Compliant Hardware Design:**
  complex system safety architecture concepts based on Aurix microcontroller, functional and technical safety concept development, customer dedicated solutions
- **ISO 26262-5 Compliant Hardware Support:**
  estimation of fit – values and failure split for Aurix, evaluation of transient/soft – faults, of diagnostic coverage due to internal safety measures of Aurix, calculation of hardware metrics
- **ISO 26262 Compliant Software Design:**
  Aurix safety software mechanisms support and configuration with respect to SafeTlib, application safety software development based on ISO 26262