

# **Our History**

## 1948

A team of diesel engine experts headed by Prof. Dr. Hans List set up the "Ingenieurbüro List" (IBL). The goal was to develop modern engines, based on the latest findings obtained from fundamental research, whilst at the same time take into account the growing economic criteria within the industry.

## 1949

Mass production of the first diesel engines at the Jenbacher Werke in Tirol and the Andritz Machine Works in Graz.

## 1951

IBL became AVL ("Anstalt für Verbrennungskraftmaschinen List").

## 1952

Central research premises were established in Kleiststraße with funds from the Marshall Plan. This site remained the home of our group headquarters and the central research and development premises.

## 1958

Development of the first direct-injection four-stroke diesel engines for trucks equipped with swirl ducts. These replaced the two-stroke engines and four-stroke prechamber engines.

## 1960

AVL expanded its business by including the engine instrumentation systems.

# 1963

The intensive development of diesel engine led to the construction of an 18-cylinder, two-stroke diesel engine generating 2,250 hp. In the early 1960s, AVL started to manufacture engine testing devices. This period also marked the beginning of the series production of quartz pressure sensors, gravimetric fuel consumption measuring equipment, flue gas measuring devices, and complete engine combustion analysis systems.

## 1969

The first fully automatic digital testbed was installed at AVL headquarters.

# 1970

The first fully-automatic AVL testbeds went on sale.



# 1974

Development of capsule technology to soundproof engines, as well as the development of DI diesel engines for passenger cars.

## 1976

Presentation of the first prototype of a light diesel engine (LD). In the same year, AVL founded AVL Deutschland GmbH as a pure sales company.

## 1979

Helmut List, who had been working for the company since 1966 and is the son of the company's founder, took over as chairman of the board of management.

## 1982

AVL commissioned a highly-dynamic test bench, with which it was possible to test a real engine in a virtual car for the first time.

## 1985

Operating a real engine in a virtual vehicle became a reality with AVL's highly dynamic testbed.

## 1986

Begin of a large-scale production of the world's first HSDI diesel engine (High Speed Direct Engine) as a drive system for light commercial vehicles, developed by AVL.

## 1987

AVL launched its newest division, Advanced Simulation Technologies.

## 1990

Implementation of the tomographic combustion analysis (TCA). This allowed to visually record combustion phenomena in production-based Otto engines.

## 1992

AVL joined forces with a manufacturer to develop the testbed demonstrator for a full hybrid drive. The Universal Hybrid System (UHS) combined a combustion engine with two electric engines via planetary gear.

## 1993

AVL was the first and only company worldwide to supply engine testbeds that can simulate the dynamic requirements of racing engines (for example, Formula 1 and the Indy Series).



## 1998

Testbed technology of the future: The worlds of numeric simulation and test bed technology are converging.

## 2002

AVL opened a test track in Gratkorn, near Graz. In the same year, AVL took over the MTC AB engine test center in Sweden.

## 2003

AVL took over the engine developer Schrick in Germany. In the same year, AVL opened the Helmut List Hall in Graz which continues to serve as an event center.

## 2007

Increase of AVL's international expansion by purchase of Le Moteur Moderne, a French provider of drive system service.

#### 2008

The new subsidiary "AVL Software and Functions GmbH" was established in Regensburg, Germany.

## 2010

Opening of battery laboratory at AVL Shanghai Tech Center in China.

## 2014

AVL acquired a controlling stake in qpunkt, a company specializing in thermal management, fluid dynamics and acoustics.

#### 2015

AVL opened its second technical center in China, the "AVL Tianjin Technical Center".

#### 2016

Announcement of the partnership with Greenlight Innovation Corp., a global leader in the supply of testing and manufacturing equipment for hydrogen fuel cells, electrolysers, batteries and energy storage systems.

#### 2017

AVL and TU Graz jointly opened the world's most advanced competence center for R&D of novel transmission systems.

#### 2018

AVL launched its new ADAS Competence Center and doubled its testing capacity with the new Battery Test Lab at the headquarters in Graz. In the same year, AVL founded AVL Fuel Cell Canada Inc. ("AVL FCC") a global



center of excellence for Proton Exchange Membrane (PEM) fuel cell stacks, with headquarter in Vancouver, Canada.

# 2019

AVL offered its comprehensive know-how in new technologies to the maritime business and opened its very first AVL maritime office in Hamburg.

# 2021

AVL opened a competence center for innovative battery concepts, with which the automobile industry in its shift to e-mobility was supported.

## 2022

AVL opened a new Hydrogen and Fuel Cell Test Center, one of the largest and most advanced test sites for fuel cells and electrolysis systems in the world, in Graz. In parallel, the new Mobility and Sensor Test Center in Roding, Germany, has been established, which serves as a unique indoor laboratory for the verification and validation of sensors for driver assistance systems. Moreover, AVL established a unique engineering facility to test conventional and future vehicles in Zalaegerszeg, Hungary. It is directly connected to the AVL ZalaZONE proving ground and provides an all-around solution to test ADAS/AD systems in a real-world environment. New office in San Sebastián in addition to existing three subsidiaries in Spain has been opened.