

30 Years of FEV – From a Research Specialist to a Development Partner for Mass Production

The history of successful companies usually starts in a garage. This would have been a suitable story for FEV as a company in the automobile sector as well, but: It was a small flat in Aachen downtown, where FEV founder Prof. Franz Pischinger started with its first projects in 1978. As spin-off of the Institute for Applied Thermodynamics of Aachen Technical University, young and highly motivated scientists got a chance to convert their research know-how into feasible and clever solutions for the industry. The topics of the first projects are still quite actual: conversion of a swirl chamber diesel into a direct injection engine, natural gas engine for co-generation, lean combustion engine, alcohol fuels, hydrogen, weight reduction – fuel consumption and emissions improvement was the main focus.

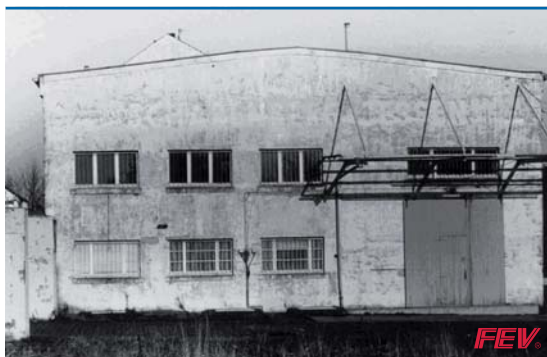


Fig. 1: First FEV Test Center, Jülicherstraße, Aachen, Germany, 1982

Soon own test benches were required. Dr. Manfred Schaffrath, first CEO, reactivated old buildings at the periphery of Aachen city. 10 years after FEV's foundation, 16 test cells were in operation and the first overseas subsidiary was established in the U.S. A staff of more than 300 people needed more space, more testing facilities. A new area south of Aachen was acquired and developed.

Along with quantitative growth up to more than 1,700 employees today, a qualitative extension was realized: The single focus on combustion development was broadened by topics like design, CAE, acoustics and calibration.

To cope with the increasing clients' demands on the equipment used in the engineering projects, the

business unit Test Systems has been established. This business unit provides facilities for powertrain research and development, for quality control in production and for end-of-line testing.

Prof. Stefan Pischinger, today's CEO, continued with further specialization in the vehicle sector. Today powertrains are developed by competent teams comprising the process from concept to series-production including vehicle integration. Development and calibration of control units are core competences as well as hybrid powertrain development and fuel cells. Production engineers are involved with planning engine plants and reducing production cost, and skilled chassis developers design chassis components and tune driving characteristics. In Brehna in East Germany, the world's most modern engine mechanics development centre with 35 durability test benches is in ramp-up. To support FEV's clients on their way towards internationalization, additional engineering centres – besides in Detroit - have been set up in China and in India. An additional network of subsidiaries in East and West guarantees a close contact to the client.



Fig 2: FEV Neuenhofstraße, Aachen, Germany, 2007

The development of DI Diesel technology for passenger cars was one milestone during the early years of FEV. Utilizing the chances of mechatronics for valve train and variable compression ratio, the refinement of particulate filters for mass production, a new generation of locomotive engines, the diesel hybrid and the involvement in a famous Indian small car project have been further highlights of FEV's work. The challenge lies in cultivation of high technology and innovations for mass production. Many engines developed by FEV move people and goods on today's streets of our world.

There have been many changes during the 30 year old history of FEV, but also constancy: The clients are always in the centre of FEV's work.

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