

Press Release

AVAT at 25: a success story

Tübingen/Germany, 2018/04/11 – The Tübingen company is in global demand as an engineering partner for smart decentralized energy systems. This year, the company turns 25 years old.

When the subject is intelligent controllers, plants and systems in the field of gas engines, boundary-transcending process measuring and control technology and virtual power plants for decentralized energy production and distribution, one name crops up continually: AVAT. The highly specialized engineering partner has gained the reputation as the hidden champion in the sector. Manufacturers of large gas engines, CHP plant builders, service providers and operators of decentralized energy systems, such as municipalities, turn to the Tübingen-based company when confronted by challenging tasks. Because they realize: the more complex the requirement, the more confident they can be that AVAT can solve it.

As far back as the 1980s, when still a student, founder Frank Ganssloser's mind was occupied with a subject that is today on everyone's lips: The Energy Transition. He wants to make our use of natural resources more efficient, more sustainable and thus more cost-effective, using intelligent energy engineering solutions to make a contribution to a cleaner environment and thus to a better future for coming generations. He sees the key in the automation and digitalization of energy management processes. In doing so, Frank Ganssloser broke new ground: In those days, automation technology is still in its infancy. Overriding control systems, with which the economics of engines and energy producing plants can be optimized, do not yet exist.

The first step comes in 1988, with the founding of his own engineering consultancy, Ingenieurbüro Ganssloser (IBG). TEM – the first digital gas engine management system in the world – and the first digital process control technology for the management of gas storage are developed and form the basis for the new products that follow in the years to come.

From the start, what customers soon come to appreciate is the flexibility that AVAT offers them. They obtain comprehensive automation solutions from a single source, but designed according to a modular principle which allows them to be readily adapted to individual requirements. "The options this gives our customers are very valuable, because they always retain freedom of choice and can achieve higher efficiency at significantly lower time, effort and cost," Frank Ganssloser explains.



In 1993, five years after the start-up, the up-and-coming enterprise no longer wants to be limited to the role of an engineering services provider – it wants to produce its own systems. AVAT Automation GmbH is born. The young team want to do things better, and above all better than the rest. This desire has remained, to this day, the major driving force behind AVAT. It is fed by an exceptional flair for the specific needs of customers and a clear understanding for the full range of application scenarios in the energy sector. Exact knowledge of the market is ideally complemented by many-facetted expertise and great commitment to research and development.

AVAT presents a continuous stream of ground-breaking solutions. From its earliest days, the company creates a stir in the energy sector when it launches the first gas engine control system with remote data access. With combustion control based on cylinder pressure signals AVAT enters uncharted territory. "For the first time it was possible to acquire data for the control system from the inside of the engine. We were thus able to reach the very heart of energy conversion," says Frank Ganssloser, describing this milestone in AVAT's history. Likewise ground-breaking is the modular openECS engine control system. Using open and flexible hardware and software components both the engine and its whole periphery can be managed and monitored via a single controller. In the meantime, AVAT know-how features on more than 10,000 gas engines in more than 100 countries worldwide. And everything is still developed and produced in-house at Tübingen.

Moreover, AVAT has a deep understanding of the energy economy and is in a position to implement solutions that transcend levels via the use of overriding digitalized process measuring and control technology and ICT infrastructure. Capabilities encompass fired heat and power plants; thermal power stations; local and district heating systems including grid control; hybrid energy systems; and complex area-wide solutions with sector connection and the integration of renewable energies. The AVAT portfolio is completed by network control technology and energy management systems as well as predictive generation and load management for the optimization and commercialization of bundled energy plants in virtual power stations and smart-grids.

Consistency guides all corporate decisions. "We think in terms of generations, not quarter years." From day one, AVAT remains an independent company. Instead of relying on investors for rapid growth, Frank Ganssloser prefers constantly to expand the company in step with its commercial success.



As a result, AVAT's number of employees has doubled every six to seven years and now totals over 100. The majority of staff stay loyal to AVAT throughout their working lives. At AVAT they can develop as people, follow individual career paths and constantly meet new challenges as members of interdisciplinary teams. Customers have come to value this and have maintained their connection to their energy engineering partner, many from the earliest days.

But successful engineers are not satisfied with yesterday's successes. AVAT is constantly extending its range of capabilities and refining its flexible modular solutions. Integral to the strategy is to penetrate new markets and sectors on a global basis. This has already happened, for example, with environmentally-friendly gas propulsion systems for ships, with which emissions of oxides of nitrogen (NO_x) can be drastically reduced. An important step towards internationalising the business was the opening of a subsidiary in South Korea in 2015.

A lot has changed since AVAT's foundation stone was laid 30 years ago. But the most important aspect has remained constant from the earliest days: "Our customers value us because we make their challenges our own, and always look to find the best solution for them, both technically and commercially," says Frank Ganssloser.

About AVAT

For 25 years AVAT has been the highly specialized energy engineering partner of manufacturers of large engines, builders of CHP plants, service providers and regional energy suppliers. In this segment, the medium-sized technology company from Tübingen belongs to the world leaders. More than 100 highly qualified employees – predominantly engineers – work on management systems for gas and dual-fuel engines and intelligent solutions for decentralized energy systems for sustainable energy production and distribution. The AVAT portfolio encompasses the complete range of capabilities: from the technical concept via hardware and software development to engineering services. Working this way, AVAT can supply both individual components and complete systems, and implement fully integrated solutions. Via its subsidiary in South Korea, AVAT is also represented in Asia.

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