The most innovative medium-sized businesses

Ranga Yogeshwar introduces Germany's innovation elite
TECOSIM is a technology company that specialises in computer-aided engineering. Its products provide greater safety and comfort as well as helping to conserve resources and reduce pollution.
Innovation processes are either drawn up by senior management in the boardroom or staff members discuss and plan them together. TECOSIM Technische Simulation GmbH has opted for the second method, which means that innovation is a top priority among its employees. Various communication channels are used to maintain the strong climate of innovation, including the SIMIPULS newsletter that provides the entire team with updates and news.

Computer-aided engineering (CAE) is TECOSIM’s specialist subject. With a global team of 400 CAE engineers, it develops innovative solutions for the energy, transport, industry and technology and health sectors. Using CAE, the engineers simulate the behaviour of components under various influences – even at an early stage of product development. This technology company tests and improves a wide range of components while they are still in development.

Ideas competitions and workshops
TECOSIM’s strengths include its outstanding climate of innovation which enabled senior managers and staff members to plan the inhouse innovation process together using ideas competitions and workshops. The product of these efforts, called SIMIPULS, was designed by 25 staff members at different levels of the company hierarchy and implemented by various committees. ‘A large number of employees were involved in devising this process, so we have taken many opinions and perspectives on board,’ explained management board member Udo Jankowski. This is why it was easy to embed the new innovation process in the company – after all there were ‘ambassadors’ in various departments and at all hierarchy levels who already believed in the new plan.

Rewards for outline ideas
The SIMIPULS newsletter, named after the innovation process, provides staff with details of the company’s successful innovations, which motivates the team and encourages them to help develop new products. The ideas management organisation also provides motivation, because employees receive bonuses for submitting ideas that are still at the outline stage. These ideas do not even have to result in an actual project. Ultimately, even if an idea is not implemented itself, it often provides a vital stimulus for other ideas.

All ideas welcome

“We rely on employees who can turn ideas into feasible innovations.”
Dr. T. Birker, U. Jankowski und J. Veith, Management Board
‘We enable our customers to save time and money.’

“Our innovative development services and products make life better in terms of safety, comfort and the environment.”

Udo Jankowski, Management Board
What are your company’s core competency?
With the aid of computer simulation (CAE), our specialists replicate individual components and, in particular, the behaviour of these components when they are exposed to certain factors. They then analyse this behaviour with reference to the development of associated products – even at an early stage. Our services include the simulation of structures, fluids, multi-body and other systems, as well as process development and specialist software solutions.

What benefits do they enable you to create?
Our method makes product development more efficient, and thus helps our customers to save time and money while also generating better products. In the past, a product had to be fully developed before it could be tested, but now many tests can be run as early as the development phase using the right software. This makes it possible for our customers to bring their products to market in a much shorter time.

How do you identify trends and new market potential?
We take advantage of the collective intelligence available in our company by regularly asking about these topics in meetings at different hierarchy levels. And we use a tool on our intranet called SIMITRENDS that enables our employees to submit the observations they have made at industry conferences or during customer meetings. We also run 'ideas bazaars' together with our key customers during which some of our staff meet experts from customer companies. They present our ideas and thoughts for customers to evaluate – that can be ideas about current projects or completely new notions. The next step is to find out where there is potential for improvement within our company and at the customer’s firm. When weak points have been identified they quickly result in ideas about how to make improvements.

Which areas and topics are you particularly focusing on at the moment?
In the area of electronics there is increased demand for virtual tests that investigate the interaction of electronics and hardware components. This relates to aspects such as electromagnetic toleration, cooling and the optimal positioning of components. The use of simulation software for virtual benchmarking is also a fast-growing field. Simulation software not only helps with the development of a company's own products – it can also be used for the detailed analysis of rival products. We already offer a suitable application under the TECIBENCH name.

Breaking into new application areas requires an instinct for trends. Udo Jankowski of TECOSIM knows the market.
A project coordinated by the Institute for Entrepreneurship and Innovation at the Vienna University of Economics and Business Administration was launched to find Germany’s most innovative small and medium-sized enterprises. As a result of this survey, the quality of the innovation management practised by the above mentioned enterprise was rated ‘outstanding’. This company is therefore one of the most innovative small and medium-sized enterprises in Germany.

TECOSIM Technische Simulation GmbH

TOP INNOVATOR 2015

PROFESSOR DR. NIKOLAUS FRANKE
Institute for Entrepreneurship and Innovation
Vienna University of Economics and Business Administration

RANGA YOGESHWAR
Patron of TOP 100

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Innovation has taken on a global dimension – there is more demand than ever for new strategies and a willingness to experiment. Every year, Prof. Dr. Nikolaus Franke, one of the world’s leading innovation researchers, identifies the Top 100 most innovative SMEs in Germany’s only benchmarking study of innovation management. Ranga Yogeshwar, the Top 100 mentor and publisher of this book, presents the 2015 innovation champions in profiles and interviews that reveal their formulas for success. There are also specialist articles in which prominent authors pass on their knowledge.