# Infopaper



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# AUCOTEC is continually growing ...

New records on its 30th birthday, 75% increase in turnover in five years

30 years

What a birthday present!
For its "thirtieth", AUCOTEC achieved a record result\* for the fifth time in a row. Nearly

20 million euros in turnover alone in the balance sheet of AUCOTEC AG have yet again topped the highest ever achieved amount in the company's history. The incoming orders have also increased again by about 15%. This already suggests a solid basis for the next successful fiscal year. Markus Bochynek, Executive Officer for Sales at AUCOTEC, is thus looking confidently to the future. "We see ourselves as optimally positioned", he said upon the announcement of the preliminary financial results.

### Ultra-modern and reliably consistent

It is important to him to highlight the team effort involved. "We are pleased of course and are proud of the result, but it was not just given to us. The AUCOTEC team really deserves it,

everyone has worked hard for it." The reasons for this success are obvious to him. "The basis of this success clearly lies in the hugely growing technological demands of our customers and in our software platform Engineering Base (EB) which addresses these challenges in an excellent manner. Around 70% of the total turnover is attributable to this ultra-modern system."

Bochynek still emphasises: "The broad basis of ELCAD/AUCOPLAN and RUPLAN customers is also very impressive. Maintenance revenues have been steady for years. There are thus good reasons to continue to adhere to our concept of reliable consistency."

### The family is also growing

Overall, AUCOTEC has achieved impressive growth in the last five years: an approximately 75% increase in turnover during this period. The number of employees grew in Germany by almost 34% at the same time. Furthermore, the AUCOTEC family has also grown: with a new office in Munich, new subsidiaries in France and - most recently - in Poland and Sweden, with the expansion and strengthening of its US subsidiary, as well as with a substantially increased majority stake in its Chinese subsidiary. The partner network is also growing with AUCOTEC now also present in South Korea. The new partner there indicates clearly what really matters by its very company name: "Engineering Base Co., Ltd."

Investments are also continuing in maintaining consistently close customer relationships. The office in Leinfelden (near Stuttgart) acquired new premises and the sites in Hanover and Eschborn (near Frankfurt) were modernised. "We are thinking of moving or extending the office in Cologne in the new fiscal year. Abroad, we are going to open an additional office in Beijing and in South-West Poland. In addition,

we are going to establish more resources in China, the United States and France", explains Markus Bochynek.

### Major orders worldwide

The strengthening of their foreign presence has quickly borne fruit. The 2014/15 financial statements show an increase in turnover in China of about 20% compared to the last fiscal year, while their incoming orders have increased by even more than 40%. Austria will close the fiscal year with 20% growth and both France and Italy also expect an increase significantly greater than 10%. In fact, three of the established subsidiaries - the United States, China and Austria - have experienced previously unknown record levels of major orders in the past two years. However, the German head office has also recently received orders, some long-term, whose volumes surpass everything that has gone before them in the last 30 years of AUCOTEC's history.

\*Since the editorial deadline is almost 3 weeks before the fiscal year end, subsequent minor deviations of the figures are possible



### Success through change, change through success

### Dear readers,

Three successful decades as an independent medium-sized company in the software industry are undoubtedly worth celebrating in style. As AUCOTEC is expected to have its most successful year ever for the fifth time in a row in the 30th year of its existence, and the turnover has increased by about 70% and the incoming orders by almost 90%\*, the entire AUCOTEC team is especially proud to celebrate this birthday!

This success was due in no small part to our ability to change. After AUCOTEC's initial ex-

pansion with ELCAD and subsequent growth with AUCOPLAN, RUPLAN and RACOS, the dawn of a new era was courageously triggered by the development of the highly innovative platform Engineering Base in 2000. The platform is now the cornerstone of AUCOTEC's growth. Engineering Base also enabled new industrial segments to be addressed successfully, especially outside the DACH (German-speaking) countries. Our international presence has increased significantly as a result (see pages 1/2).

The change is continuing! This is not only illustrated by AUCOTEC's new appearance, which

is also reflected of course in this Info Paper. With the implementation of Web services and mobile applications (page 3), we are currently at an important stage in the technological evolution of our platform Engineering Base.

We are looking forward to further successful decades with you - full of exciting, changing challenges!

Yours, Uwe Vogt Executive Officer





We are looking forward

Hannover, 13.04. - 17.04.2015 Hall 7 / Stand B 28

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#### Ideal for complex processes

The Professional Services sector was able to record an increase undoubtedly due to the major orders also. It achieved an increase of almost 20% compared to the previous year. "The reason for growth here also is primarily Engineering Base, whose technological superiority is ideal for particularly complex processes and projects", explains Bochynek. The unchecked increasing data and process complexity of the customers of all sectors

addressed by AUCOTEC also leads to a greater need for service support. This applies in particular to process engineering plants and wiring harnesses in mobile systems, but also in the area of decentralised, renewable energies and - especially in terms of Industry 4.0 - last but not least for mechanical engineering.

"The figures show that the collaborative capabilities of EB, which create a unique synergy and thus significantly more efficiency for customers, have been well-received on the market", says Markus Bochynek, "AUCOTEC's growth stems mainly from the success of our customers. They are in the lead and we are going to keep it this way!" Not only this, however:

#### The new image

Even though the company has now grown out of its old image, AUCOTEC would definitely remain true to itself, says Bochynek, at the launch of its new image on the occasion of the

company's birthday. "The 30th birthday is a milestone in a person's life. One has continued to develop and starts thinking of adding to the family. This is no different for us. This modern image simply fits our next moves better, we still have a lot planned."

# "Traditional company with start-up spirit"

# AUCOTEC celebrates 30 years of history: pioneer of computer-aided drawing up to intelligent data management

#### AUCOTEC AG was founded in 1985 in Hanover

at a time when the ultimate in storage capacity was a mere 640 KB and the term "mouse" mainly referred to an undesirable, if sometimes cute, rodent. AUCOTEC quickly assumed a pioneering role: the first supplier of a PC version (1986), the first to switch over to Windows (1993) and the first to combine a graphic system with tabular work (AUCOPLAN, 1994).



### Much more than drawing

AUCOTEC had stepped out of its CAD infancy at the latest with this last step. The term "CAE" (computer-aided engineering) began to establish itself in order to make it clear that this was more than just computer-aided drawing, namely intelligent engineering and data management.

AUCOTEC devoted itself very intensively to the development of this trend in the following years. At the same time, the company expanded with subsidiary companies in Austria (1988) and the United States (1995), but also and primarily through the acquisition of RUPLAN software (1997), developed originally for AEG, since its entire development team was also taken over by the then Daimler subsidiary Debis SSP GmbH.

### Standards established

Thus AUCOTEC had opened up a second development centre in the heart of Germany, which focused mainly on the area of power generation and distribution. Over the follow-

ing years, the employees in Frankfurt, led by Product Manager Dr. Wolfgang Fischer, also established standards with RUPLAN that still remain unchallenged in the power distribution industry beyond Germany's borders. This is also thanks to the utilities working group ("EVU-Arbeitskreis"), which AUCOTEC has continuously led and expanded since 1997. Representatives of all well-known power companies still discuss relevant issues in the group.



### New yet based on experience

This group also triggered decisive impulses for the power version of AUCOTEC's database-driven platform Engineering Base (EB). It also has pioneer qualities. The system is unique in its openness and in its ability to organise cross-disciplinary cooperation in a highly consistent and efficient manner. Furthermore, no other software is as widely established as EB. As a logical further development, the cumulative experience with the AUCOTEC classics ELCAD, AUCOPLAN, RUPLAN and KABI was invested in the platform. It is now more than successful in all markets of these classics: from the process industry via the automotive sector and power supply to mechanical and plant engineering. In terms of content, EB is not only on a par with its forerunners, but goes far beyond them. Only EB also offers the synergy-creating connection of processes.

### EB growth engine

With the development and widespread use of EB, AUCOTEC's growth has also progressed further. First, with a partnership in China (2003), from which an 85% subsidiary developed in 2012. Also with subsidiary companies in Italy (2004), the United Kingdom (2005), France (2012) and Poland (2015). Moreover, another development centre arose from the acquisition of RACOS (2007) in Constance, and a new office was established in Munich in 2011 to support the sites in southern Germany, Nuremberg and Stuttgart. In 2013, 90% of the growth in turnover and over 60% of new business were already attributable to EB.

### EB connects

Availing of the particular openness of the platform, collaborative partnerships with Solid Works (2009), Unitec (2011) and Siemens PLM Solutions (2014) created even closer ties with highly professional and well-established 3-D and PLM systems. However, all this progress would not have been possible without the people at AUCOTEC. "Despite our growth, we still attach major importance to close personal relationships", stresses Markus Bochynek, who, with his colleague Uwe Vogt, has been supporting the co-founder and long-time Chief Executive Officer Horst Beran on the Executive Board since 2009.

### From a human perspective

"I am very impressed with the commitment and the loyalty, often spanning decades, at AUCOTEC, from customers, business partners, but also on the part of the employees", says Bochynek, "we have here a very productive mix of young and old, the latest expertise and an enormous wealth of experience."

With a length of service of almost 11.1 years, AUCOTEC is only slightly above the German average of about 10 years, but this number will be somewhat "diluted" by the 49 new hires in the last 4 successful years according to Bochynek. Almost half (over 47%) of our German colleagues are actually more than 10 years at AUCOTEC, 40% over 15 years and almost one in five (18.5%) more than 20 years.

### "Always there for each other"

During surveys of people at AUCOTEC, certain advantages continually arise when it comes to the workplace: the informal interaction, the appreciation from colleagues and managers, the freedom to organise one's own work and, last but not least, the short paths. Managers, and even the Executive Board, are within everyone's reach. "We are very different, but always there for each other", says Djibi Dia, Director of the French subsidiary, who has been with AUCOTEC since 1997. Sales Director for DACH, Klaus Naumann, says: "The team here is like EB: flexible, fast and really open to all possibilities." Stefan Wedderkopp, Senior Application Consultant, sums it up as follows: "I find the mix of a successful traditional company and start-up spirit very exciting - here, experience is as much appreciated as fresh

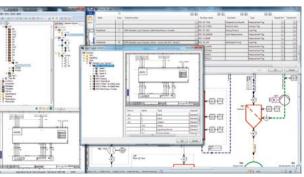


> Markus Bochynek

The customers also sense the team-oriented atmosphere and this is sometimes a deciding factor in their decisions. As a satisfied EB user explained recently: "Of course there were also arguments in favour of other systems, and so we had to ask ourselves what our gut reaction was - we quickly realised that we trusted EB and AUCOTEC the most, and we don't regret it."

"This is how we want and will also continue to grow", stresses Markus Bochynek "above all with reliability, personal service and a trustworthy relationship with our customers, but also with many other creative, pioneering ideas of course!"

### EB-News Configuring instead of generating



> Advanced Typical Manager

AUCOTEC at Hannover Messe: Faster with quality-tested engineering modules; new Teamcenter interface

At Hannover Messe, AUCOTEC will be introducing for the first time its Advanced Typical Manager which provides more clarity and consistency in variant management. With the new module of software Engineering Base (EB), it is easy to confront the rapidly growing complexity with which designers are faced today

in the almost insurmountable mountains of variants and options when configuring machines and plants. Read more

### Seamless PLM integration between Teamcenter® and Engineering Base

AUCOTEC will also be introducing the result of its collaboration with Siemens PLM software: the new Teamcenter interface for improved PLM integration. Read more







## The next step

### EB provides the perfect basis for the evolution to Web technology

The underlying technology plays a crucial role in all complex technical products. It is a prerequisite for the realisation of all necessary functions. Many capabilities of the Engineering Base (EB) platform could not have been achieved with the technologies that were available 30 years ago. With a monolithic file-based desktop application, simultaneous engineering by many users in a project is just as inconceivable as working simultaneously on several projects.

#### Architecture and model-based approach as prerequisites

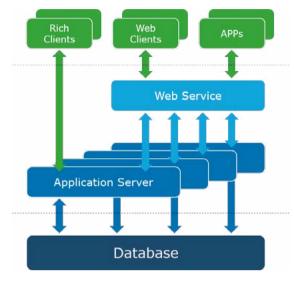
When designing EB, AUCOTEC relied consistently on completely new software technology. A three-layered client/server architecture permitted both consistent simultaneous work as well as an open upward scalability from the single workstation to the enterprise solution and efficient handling of extremely large amounts of data. Only the data-driven, model-based approach is flexible enough for "real" engineering and PLM processes, far beyond the original "CAD". Thus entire power station units and large-scale chemical plants are now developed in

large, and sometimes widely distributed teams, using EB from the initial idea to the final terminal.

### Mobile and future-proof with apps

After the major change in technology marked by EB, the platform is now taking its first basic evolutionary step: the addition of Web services and Web-based applications for mobile clients, apps for short. They rely on the existing architecture. The apps are an addition in the short and medium term to the previous rich client, which offers all features of the platform in one application. They will each be tailored to specific requirements and will be easy to use. An example of this is the maintenance app which AUCOTEC presented for the first time in 2012.

With this advanced state-of-the art technology, developed in a similar manner to established PLM and ERP systems, EB continues to be absolutely future-oriented and thus offers long-term investment security.



> Multilevel client-server architecture with web service

# "This will take us through decades!"

Interview with the Chairmen of AUCOTEC's Executive Board and Supervisory Board, Horst Beran (73), high frequency engineer, and Dr. Lex Bedijs (62), Dr of Mechanical Engineering. Both are also equal shareholders of AUCOTEC Holding, while Dr. Bedijs still develops software for AUCOTEC.



Mr. Beran and Dr. Bedijs, as co-founders and owners, you are the "fathers" of AUCOTEC so to speak. How did its founding come about 30 years ago?

**Beran**: I was looking for a CAD system for plant engineering for my former employer, but could not find the right system. At one of the predecessors of the CeBIT trade fair in Hanover, I then met Dr. Bedijs, who was fresh from university at the time and working in an engineering office. The idea for ELCAD was conceived, and in order to develop it, we and three other founders jointly invested in "Automatisierungs- und Computertechnik Aucotec GmbH".

**Dr. Bedijs:** And one of our first customers was actually Horst Beran's former employer. Mechanical and plant engineering has long been our main focus.



What were the biggest challenges in the early vears?

**Dr. Bedijs:** The biggest issue was suitable hardware; portable computers were just coming on the market, plotters were extremely expensive, and we sometimes had to resort to high-resolution dot matrix printers. A single workstation cost around 70,000 DM at that time. The storage capacity was a real problem. 5MB of hard drive space, 640KB of RAM! Our software first ran primarily on mainframes.

AUCOTEC often assumed a pioneering role: the first PC version, the first to switch over to Windows, the first supplier to link a graphic system to tabular work. Where did this vision come from?

**Beran:** The idea dawned on us at a very early stage that software should offer engineers more than just computer-aided drawing

**Dr. Bedijs:** Yes, we already had Windows-compatible software at a time when Windows was virtually unknown. The first PCs had no graphics program, for example, so we programmed each pixel individually, which is hard to imagine nowadays! As our ideas were rather limited by the technical environment at that time, every new development was more than welcome. If we "sensed" advanced options, we used them immediately.

No other CAE supplier has such wide-ranging industry experience: from mechanical engineering via process engineering, power distribution up to the cabling of mobile systems. What strategy is behind this?

**Beran:** This has resulted from demand on the one hand. When we started diversifying in the direction of the process industry, we were approached by a customer, the former Hoechst AG. They were looking for a program specifically for process engineering - which was then AUCOPLAN. On the other hand, our range of products was extended through acquisition. In 1997, we took over RUPLAN including its related activities and the development team. We thus came upon power engineering. Our Austrian partner then had the idea of using RUPLAN also for wiring harness design, and so KABI evolved.

### How did the RUPLAN acquisition come about?

**Beran:** The takeover was proposed to us by the former Debis, a Daimler subsidiary. We knew the Product Manager, Dr. Fischer, from a network of CAE manufacturers who met regularly - already back in the 90s, to pursue the idea of a process-independent interface. RUPLAN was already a powerful tool at that time. We didn't want to miss out on all that expertise, and rightly so!

## Engineering Base (EB) now combines AUCOTEC's industry experience in one basic technology with different versions. What led to this development?

**Dr. Bedijs:** We recognised at an early stage that the growing complexity of plants needs a database-driven CAE system in order to be future-proof in every industrial sector. Thus we developed this basic technology and invested our industry knowl-

edge in the different versions. There was also a certain rationalization concept behind it, but this aspect applies even more from a customer perspective: EB's interdisciplinary collaboration capability – and also because of its broad spectrum reduces the number of interfaces necessary in the engineering process as well as the effort involved in input, consultation and correction.

**Beran:** And because we had originally envisaged EB for the international market, we deliberately retained its ease of use. Our EB customers now also appreciate this fact across all industries. The current data volumes are already complex enough.

aptation to future operating systems.



> Horst Beran

### What's going to become of the classic AUCOTEC products ELCAD, AUCOPLAN and RUPLAN?

**Beran:** Our position is very clear here. Many customers are still very satisfied with our classic products and do not have to become accustomed to anything new for the foreseeable future. **Dr. Bedijs:** We are definitely going to continue developing the classic products. However, this will mainly involve such general improvements as more convenient usability, clearer look or ad-

### What is your personal highlight if you consider the company's development?

**Dr. Bedijs:** One of the main highlights for me was the founding of AUCOTEC AG in 2003. With fewer owners, we have also achieved a standardization in terms of methods and personnel development. The segregation of duties in the Executive and Supervisory Boards has made the day-to-day operations independent of owner sensibilities.

**Beran:** I agree with you. I also see the decision to extend the Executive Board by appointing Uwe Vogt and Markus Bochynek in 2009 as a ground-breaking step. They guarantee the further development of AUCOTEC in our interests. This also means that we will continue our tradition of close contact with customers because it is and will remain a key factor in our success. And ultimately, the track we embarked on with EB was the right track completely, the figures have shown that for years.

**Dr. Bedijs:** A recent study showed that the system in its current state of development will even take us through the next 20 years. It has a very sound and future-oriented basis.

Beran: Of course, we won't rest on our laurels either!

Thank you very much for this interview!



### More automation for automation engineers

### Actemium combines cabinet and software design

Actemium Cegelec designs, installs and maintains electrical and automation technology systems for virtually all industries and sectors — in an integrated and manufacturer-independent manner. For over 100 years, the company has been offering customized solutions and services to customers from different industries. The Actemium network of VINCI Energies has a global presence of 300 business units in 35 countries with approximately 19,000 technicians and engineers.

#### Database reduces project planning costs

Low planning costs are the quintessential element in the highly competitive market for electrical and automation technology systems. Thus the Berlin business unit of Actemium

Cegelec has already relied for a long time on database-driven engineering. The concept now also includes cabinet design and manufacturing. Thus all those involved in the engineering process can work together in a common database and operating steps can be combined. Instead of carrying out the cabinet design on paper, CAD-based diagrams and cabinet manufacturing in separate steps, the designing and implementation can be performed on a data platform with an integrative system.

As a result of their long-term cooperation with AUCOTEC, Actemium Cegelec discovered Engineering Base (EB) for software and cabinet design using a common database. "We

were won over by the possibilities it offers", says Peter Tennert, Project Manager at Actemium Cegelec in Berlin.

#### **Easy familiarization**

"Even the first project was a complete success", adds Tennert. The designers planned and presented the cabinets without the intermediate step of the technical diagram. "The result was very good – and this was achieved virtually without colleagues' drawing experience. They found it easy to become familiar with the creation of diagrams due to the integrated and intuitive MS Visio."

For PLC engineering, Actemium Cegelec has used VBA (Visual Basic for Applications), which

is integrated in the software, not only to develop program functions that assume the functions of the old database tools, but also to program new functions. "The creation of macros to extend EB functions is relatively easy with VBA", says the project manager.

The software platform offers many other functions which Actemium can activate depending on the requirements and project. According to Tennert: "We can create P&IDs and hook-ups at any time with the software if the customer so wishes. The editing time is also reduced because the data can be used immediately for cabinet design and PLC programming."

### Achieving more without an explosion in costs

### EB's close link to SAP and major flexibility won over R. STAHL

R. STAHL is the world's leading supplier of customised electrical explosion protection system solutions. The ability to integrate different technologies in systems in addition to an extensive range of innovative products are essential to this success. Customers benefit from the company's broad expertise in automation technology as well as its established expertise in the area of switching devices and lights for potentially explosive atmospheres. Extensive services such as consulting, planning, engineering and training complete the offer. The company's customers stem from the oil and gas industries as well as the chemical and pharmaceutical industries. The shipbuilding, food and biofuel industries also depend on explosion-proof products. R. STAHL is in an excellent position with subsidiaries in 24 countries and almost 60 offices worldwide. 1,850 employees worldwide guarantee extensive on-site sales and customer service.

### Automatic bills of material

For its roughly 150,000 projects annually, R. STAHL's engineering team wanted a consistent linking of drawings, circuit diagrams and bills of material (BOMs). Engineering Base (EB) was able to win them over in this respect: BOMs are added automatically by the database-driven system and any object that is created once is immediately visible in every other view - with-

out multiple entries or interfaces. EB's extensive individual adaptability and its ability to incorporate additional functions also impressed R. STAHL. Due to its integrated SQL Server and VBA, EB also fits perfectly into the Microsoft-dominated IT world.

### Seamless SAP integration

"It was particularly important to us that EB could be integrated seamlessly into our SAP workflow", says Joachim Brosi, who shares responsibility for the migration as Team Leader for R. STAHL's engineering process and system design. "We create projects directly from SAP, graphics and BOMs are always consistent and the material master can be readily used in engineering." It works in the same manner the other way round: EB projects can be returned completely to SAP, including automatic checks. Production orders are also generated automatically. SAP is used to calculate prices and costs.

### Faster

"Our customers receive their offer significantly faster with EB", says the engineering expert. "The updating cycles are also accelerated and communication via fewer contacts is possible due to the centralisation by EB's database. Thus we achieve more without more costs."



### Future

To date, R. STAHL has used approximately 150 EB licenses for the global planning of a specific product range. "However, we will extend this to cover all products, especially the more complex custom-specific electrical design which accounts for about one-third of our projects", explains Joachim Brosi. The integration of all locations and the linking of production centres are further expansion plans for the near future.

### And furthermore ... the following companies, among others, have recently opted for AUCOTEC:















Vossloh Kiepe GmbH Düsseldorf | Germany ABB Global Industries and Services Limited Bangalore | India Westfalen AG Münster | Germany Bossar Packaging Systems s.r.l. Mortara | Italy MBDA Deutschland GmbH Ulm | Germany MINERG-APPELSA Services S.A Geneva | Switzerland