SIEMENS

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# Trendsetting automation for the entire value chain

- Check against delivery -

**Sustained value enhancement in 2006**

During fiscal 2006, Automation and Drives was well on the way to expanding its profitable growth to an all-time high. With sales of 12.8 billion euro, we were able to increase our Group profit to over 1.57 billion euro; our EBIT margin remained stable at 12.2 per cent. New orders rose to 14.1 billion euro, and the number of employees increased by almost 10,000 over the previous year to roughly 70,600. With acquisitions and endogenous growth across all regions and divisions, we were thus able to maintain our position as the biggest and fastest growing automation supplier worldwide. This is a positive reflection of our strategy of sustained value enhancement, to continue the optimization of our entire value chain and to consistently adjust our portfolio to the requirements of our customers.

Business growth in both factory and process automation and in electrical equipment for buildings is proceeding at a varying pace across the large regions of the world. The Asia region, which represents almost one third of our global market, remains the number one growth driver in our business. In Asia, we are spearheading the automation market, ahead of two European and a number of Japanese competitors. While the signs of an economic upswing are less pronounced in America, the EU, and Central and Eastern Europe, an upward trend is nevertheless on the horizon. We succeeded again in 2006 to reach our goal to further extend our lead over our competitors and to consolidate our number one position in the overall automation market. We are the undisputed world market leader in the factory automation; in process automation we were able to translate the technological positives resulting from the acquisitions of Flender and Robicon into strong growth and advance to the number 3 position.

We managed to open up a new growth market in electrical equipment for buildings, where we are in second position hot on the heels of the market leader. About two weeks ago, we signed a contract to acquire the majority shares in OEZ, Letohrad, in the Czech Republic. With 1300 employees, OEZ is the market leader for low-voltage switchgear and electrical installation systems in the Czech Republic and Slovakia. The OEZ company is mainly active in Eastern Europe and operates branch offices in Poland, Russia and Ukraine. This acquisition is an important step in positioning Siemens low-voltage switchgear and electrical installation systems in their markets. It

is our intention to combine OEZ's established market and customer access with the expertise of Siemens in the upper performance segment. In so doing we wish to continue using the established OEZ name and to add Siemens products to the portfolio.

**Aligned to production trends**

Worldwide, we note that the rising standard of living, more stringent quality requirements, and increasing individualization are having an influence on our production systems. The most diverse product variants need to be available on the market at high quality and within the shortest possible time-frame. The resulting requirements extend far beyond powerful systems at field level. Globally interlinked material flows require flexible manufacturing plants, synchronization of merchandise management systems with production systems, and production traceability facilities. In view of these challenges for producers, automation providers which boast a complete portfolio spanning hardware and software are very much sought after. Besides integrated IT systems for asset management, HMI (Human Machine Interface) and MES (Manufacturing Execution Systems), A&D focuses mainly on the developments in digital engineering in an effort to enable its customers to realize productivity gains. When all is said and done, it is not just the production, but also the design, construction, commissioning and conversion of production plants that are coming under growing time and cost pressure.

**Market development in engineering**

In the future, new production systems will need to take into account right at the design phase any product variant the consumer or buyer requires. Since consumers are increasingly calling for individualized goods this means that, depending on the type of product, tasks such as one-off production, small production lots, production on demand, flexible production lines and product planning will need to be managed in ‘real time’. Smart and modular mechatronic systems are needed to allow a production run to be adjusted and adapted swiftly and flexibly.

In the future, all this will take place in the early engineering phase where a digital link between development and production will be established. Mechanical engineering

and automation are coming together i.e. mechanical design is converging with control design. We believe that in the long term, car makers and other highly developed industries will see integrated design encompassing mechanical engineering, automation and controls, where PLC codes will be automatically generated via code converters. Along that path, control designs for automation systems will be created via powerful engineering systems such as the Simatic Automation Designer which we described in detail at last year's conference here in Frankfurt.

We are taking account of these market trends by adding PLM software to our industrial software portfolio. This is why, in January, we concluded an agreement to take over UGS Corporation. With 7,300 employees worldwide and over 46,000 customers in 62 countries, the company is a leading global supplier of PLM software and services. A&D will take on over 3000 software engineers from UGS, bringing the number of software experts employed to around 7,000.
UGS holds leading market positions in all segments of the PLM market, including the two segments experiencing strongest growth, i.e. 'digital factory' and 'digital product data management'. The company is a supplier to customers in the automotive, aerospace and defense, consumer goods, electronics and machinery industries around the world. Since 2003, we have maintained a partnership with UGS dealing with joint products and projects in digital engineering; visitors to Hanover Fair will have noticed our joint appearance at the leading 'Automotive Live' fair. As a result of this partnership, for instance, we were able last year to present the state-of-the-art in digital engineering in the car-manufacturing industry in collaboration with our customer VW.

UGS is set to become a division of the A&D Group. The headquarters of this division are to remain in the United States. The transaction is still subject to approval by the authorities. We are aiming for a rapid closing but will duly consider all relevant circumstances. Since there are hardly any overlaps in our portfolios we are confident that the closing will be achieved within the next few weeks.

Regionally, we are also a perfect match because UGS has also got a great presence in USA and Asia, besides Europe. This acquisition strengthens our activities in USA and in Japan. Amongst our customers' industries we regard aerospace, automotive and general mechanical engineering as our focus markets where both UGS and A&D possess a vast technological expertise. In the medium term, however, we are expect-

ing PLM software to also promote a major productivity thrust in hybrid and process automation.

**Further development of the complete UGS portfolio**

UGS's software portfolio covers the full range of tools used in computer-aided design, digital product data management and software for simultating manufacturing processes, generally known as 'digital factory'. CAx software creates 3D geometries, product design and product data and simulates the physical properties of these products; its simulation capabilities include the simulation of production of specific products and the processing of their production-related data. cPDM software is used to store, administer and make available product and production data. It enables access to relevant information on the entire production life cycle of the various sections and levels of a company's value chain.

While our digital factory activities will rely on our successful collaboration, the extension of our software portfolio will mean that we are now in a position to provide our customers CAx and CPDM technologies to raise their productivity. In this context, we are planning to dovetail the entire UGS portfolio with A&D's hardware and software portfolio, within the meaning of 'Totally Integrated automation', in order to provide customer benefits from a single source. This also explains why we will be fusing our technological competence with a bi-directional transfer of knowledge and expertise.

In addition, we will certainly also be pushing the advance of CAx and CPDM products as stand-alone products with a view to continuing the successful growth of UGS and gaining further market shares in these segments from our competitors. The positive response we received from UGS customers immediately after announcing our acquisition makes us extremely confident about reaching this goal.

**Productivity through integrated engineering**

At the same time, cost pressure is prompting industrial companies to increase productivity throughout the entire production life cycle. The success of production strategies will be increasingly governed by time- and cost-to-market. In spite of the growing complexity involved in linking mechanical and electronic items with soft-

ware, there is a continuing need to further reduce development time, in particular the test and commissioning phase of production plants.
Parallel to the design of a machine or plant, products and their production need to be simulated and optimized as early as in the simulation phase. Designers and plant engineers initially design virtual products on the screen, and any subsequent plant design modifications are incorporated at an early point because the automation teams are already involved in this early phase. Products are released by the product designers only after having passed successfully through the digital factory and after all optimization options for the product design and production process have been exhausted. Information collected during and after the end of the production cycle is fed back to the product and plant designers.
No matter whether CAx, PDM, or 'digital factory' – it is the combination of the PLM portfolio with hardware and software at A&D which provides our customers with the decisive benefit of making the design and production of their products more efficient. In technological terms, this combination requires a seamless integration between data from product design, plant design and physical production. This was exactly what we had in mind when we acquired UGS: We make our TIA portfolio more powerful by reducing the number of system interfaces.

**Fewer interfaces**

At present, the mechanical and the electrical design of products and plants are still two distinct processes. Different interfaces still exist – and interfaces are always a source of delay and error.
The UGS acquisition makes A&D the first suppliers to industry offering integrated software and hardware across the entire life cycle of products and production plants. By integrating the PLM portfolio on the basis of open standards, we are reducing the number of interfaces in order to increase productivity. Isolated stand-alone solutions that used to be commonplace in product design, production and service software will increasingly change and turn into an integrated system business.
Being ourselves system providers, we only stand to gain from these additional opportunities to set ourselves apart from our competitors. The benefits for our customers are clear: they range from designing their future production systems using CAD tools for creative product design to selecting and planning their strategies related to production, logistics, service and recycling. While the resulting advantages

are vast, their relevance may well vary from one individual sector of industry to the next. However, they can be roughly summarized as follows:

- Higher productivity across all stages of product and production engineering
- Shorter time-to-market through simulation and faster production ramp-up
- Better product quality through data consistency in the entire engineering process
- A more flexible production results in shorter delivery times

**Software-based innovation networks**

In order to be competitive on the global market, producing companies operate geographically distributed production facilities. In most cases, this also requires a distributed network of partners, be they suppliers, distributors or service providers such as product designers or engineering companies; customer contacts are also part of this network. Let me now paint a little scenario for the year 2020 which illustrates the role Siemens A&D will be playing as a supplier to industry.
In product and plant design in 2020, all processes along the production life cycle will be virtually supported, ranging from planning via mechanical and electrical design, programming and commissioning of the plant all the way to its operation. Irrespective of the software in use, all data will be read and merged into the digital engineering environment. The creation of a product will be holistically mapped in the digital engineering process. Once virtual commissioning has been completed, the data is directly applicable to the real plant, and the automation solution is generated automatically. This includes PLC programming, visualization - including diagnostic information - and the creation of the relevant plant documentation.
By combining our technological expertise in the world of physical automation with the virtual world of PLM software, Siemens will be the only company to provide integrated software and hardware solutions covering our customers' entire production process. Our integrated software portfolio opens up an entirely new dimension of efficiency irrespective of whether our customers are producers, engineering partners, system integrators or mechanical engineers. All our future software and hardware products will support the established interfaces and standards, truly merging the field of engineering with that of automation.

However, since innovation will always remain a human asset which involves many different partners, these standards will allow us to achieve a whole lot more: We will

use information technology to connect people equipped with the most diverse skills across a company's entire value chain, making this exchange of information most efficient. Not until we have genuine software-based collaboration within global networks will we have an environment in which the information needed to guarantee efficient production processes is available to all partners involved.

**Tailor-made transparency for decision-makers**

Back to the present times: We are also continuously extending our industrial software portfolio for the production process as such. To date, this market is still largely fragmented; with the growing volume of data that needs to be processed and visualized, however, there is also an increasing need for both horizontal and vertical integration of management processes. Demand continues to rise for IT for synchronizing production flows and making them simpler and more flexible. With our large universal portfolio, we are a major player in harmonizing industrial IT environments: this applies to both minor and global companies and covers the full range, from optimizing the field level to seamless transition to ERP (Enterprise Resource Planning).

More efficient solutions are wanted, involving fewer interfaces and creating actual transparency for the user who is able to retrieve information in real time in order to accelerate the control of his production plants. Most customers prefer open and stable systems that can be built up step-by-step while production is running, rather than having to replace a system before it has paid back. With Simatic Plant Intelligence, therefore, we have created an integrated scaleable solution from machine level up to enterprise level.

Plant Intelligence is available in two versions: an entry-level version based on the Simatic WinCC process visualization system and an advanced version which includes the MES contained in Simatic IT. An existing SCADA solution with Simatic WinCC could therefore easily be complemented to include web-based analysis, reporting or quality analysis. Plant transparency at MES or ERP level can also be increased by adding extensions. Simatic IT is able to correlate and analyze key performance indicators across several plants, together with production data on orders, genealogy and batches.

In the field of infrastructure projects and distributed systems we strengthened our portfolio by acquiring, early this February, a company called ETM professional control

GmbH of Eisenstadt, Austria. With 86 employees, ETM specializes in process visualization for infrastructure projects such as motorways, road tunnels, waste water, district heating, and pipelines. ETM has implemented its PVSS II process visualization system in various projects, including the East-West Pipeline in China, the metro in Vienna and Hamburg, the gas network in the Netherlands and the St. Gotthard road tunnel.

**Efficient raw material processing through technology and expertise**

Against the backdrop of a global shortage of resources and the rising cost of raw materials, it is getting more and more important for our customers to increase the efficiency of their plants. This concerns the development of products and production plants, as well as the control of data and goods flows across the entire supply chain. This also explains why all industries see a growing need to use ever more powerful automation systems and to fit them with a communication infrastructure which provides real-time information. This involves a large number of automation systems and levels, ranging from distributed control systems to controllers and the associated IT, to industrial communication and the sensors used in production.

**Exchange of expertise with our customers' industries**

Our customers know us as the supplier with the largest global standardized product and system range which we have leveraged and made more efficient on the basis of our 'Totally Integrated Automation' (TIA) and 'Totally Integrated Power' (TIP). As a reliable partner, we are using the combined specific industrial expertise to develop solutions which we then integrate into our customers' processes.

This strong industry focus gives Siemens a competitive edge no other automation supplier can claim. One element of our innovation strategy is to foster a systematic and ongoing dialogue with our customers. Our twelve centers of competence focus on the specific requirements and trends of our customers' industries. Their expertise is directly translated into our products, systems and solutions. It also enables us to offer our customers cross-group industry suites and online industry portals which incorporate a specifically integrated spectrum throughout the entire life cycle of their activities. Most centers of competence benefit from the experience of several

hundred employees gained in the course of several decades. With this unique competence, we are not only several years ahead of the competition, we are also spreading this expertise between the various industry sectors. Especially in the hybrid industries, therefore, we are able to achieve great productivity gains thanks to our unique competence in factory and process automation.

**PCS 7 continues along its growth path**

It is, notably, in the process industry with its complex process sections that a balance must be struck between safety and economic profitability. Having complemented our field instrumentation portfolio and acquired Flender and Robicon for drive systems, we have successfully continued our excellent growth rate in this market segment. With PCS 7 we have a process control system on a standardized Simatic base for which demand is constantly rising, especially in the chemical, pharmaceutical and food & beverage industries. Over 5000 projects have been realized worldwide on the basis of PCS 7 and together with our integration partners we are determined to continue our PCS 7 sales growth by an annual rate of 25 per cent.

The extension of our system interfaces for the Foundation Fieldbus Standard (FF), which is the subject of our technology exchange agreement with Emerson, will open up greater potential for increasing user benefit and, thus advancing our growth in process automation. Interface extensions provide better interoperability between devices and greater functionality on the basis of the global EDDL standard (Electronic Device Description Language). They enable us to link a wide range of FF instrumentation and positioners to the Siemens control system. This advanced harmonization of field device integration will mainly benefit heterogeneous system environments and create further growth opportunities for the chemical and pharmaceutical industries, in oil and gas, refineries, paper, power generation, food & beverage.

**New release 7 – quicker configuration, more performance and greater safey**

With the new release 7, we are making PCS 7 even more powerful, especially in terms of engineering ,process safety and plant asset management. In future, Online Multi-User Engineering will accelerate the engineering process by providing several

experts with joint access to the central database and enabling them to work in parallel on their plant configuration. The Advanced Process Library will enable further cost optimization through superior standardization in the engineering field. A new function, ‚Engineering Station', has also been added to the user administration. In configuration, this function provides full access protection and the documentation of modifications. In hardware terms, the new release of Simatic PCS7 with its new S7-400 controllers boasts an increase in processing speed of over 25 per cent, depending on the type of controller used.
The redundant Profibus PA will now provide a consistent and scaleable redundancy solution, covering the automation system through to the PA field device. The smart alarm management system is also among the novelties in plant safety. By prioritizing incoming alarms, it allows operators to intervene selectively. Another new feature is the comprehensive protection against targeted hacking of the plant operators' IT systems. It is based on a well matched combination of various individual elements including encoding, firewalls, and a deeply structured safety architecture.

Moreover, the new release allows the integration of mechanical plant components into the asset management system. Special functions were developed to monitor such components such as heat exchangers, tanks, pumps, motors, etc. which feed maintenance alarm signals into the Asset Management System for the service personnel to see on their Maintenance Station. A central archive server (CAS) has been integrated into the system, providing administration and long-term storage of readings, messages, alarms and reports as well as Simatic Batch data. A CAS such as this is a must, especially in plants requiring validation as is the case in the pharmaceutical industry. The OpenPCS 7 interface of release 7 also allows the user to link the control system directly to higher-level systems used for production planning, process data analysis and management.

**Convergence of sensors and communication**

Sensorics and industrial communication are trend issues with great future potential. Sensors, the feelers and detectors in the production process, are among the key elements in our portfolio. Integrated industrial communication creates transparency in production and has long been a highly innovative sector of technology. Smart

sensors have an increasing demand for communication with the control system. That is why the link between sensors and communication is gaining in importance all the time.

Against the backdrop of this increasing convergence between factory and process automation, our customers expect to find a complete range, from process and production sensorics, including fieldbus and wireless technologies, a range that will help them increase the productivity of their plants through integrated communication. For this reason, at the beginning of the fiscal year, we merged hardware, software and know-how in a new division called Sensors and Communication (A&D SC). To a certain degree, process and production sensors are based on the same technology, e.g. ultrasound. In this field in particular, it is essential that research and development join together to leverage technological potential. What is more is that the convergence of our qualifications in sensorics and industrial communication create the prerequisites for a leading position in the promising area of wireless sensors.

Wireless applications are in great demand. Many customers like to use the flexibility which Industrial Wireless LAN provides. Reliability and safety are also key issues: Our Scalance W components provide reliable Profinet I/O transmission and even safety functions; thanks to its black channel technology, the Profisafe protocol can also be transmitted via IWLAN. Our Scalance W components are the only ones on the market providing the level of reliability (cyclical transmission in the millisecond range and data security complying with the latest security standards) required by the new IEC standard currently being developed.

To cover longer distances in wireless data transmission, we have integrated the Wireless Modules subdivision, thus opening up another new access option via GSM/GPRS networks. In telecontrol applications, our new GPRS router, SINAUT MD 740t, makes it possible to monitor and configure Simatic S7 controllers in remote sites at low cost and without a great demand for infrastructure. An integrated VPN function ensures the required security and works perfectly together with our Scalance S modules.

At the Hanover Fair, we will be presenting numerous new products in the areas of Sensors and Communication. Among other products, we will be showing the Simatic RF Manager, a software product for capturing entire goods flows via compression of RFID data, optical proximity switches with ultrasound in miniature design, compact

flow meters for multi-parameter measurements of gases and liquids, as well as powerful ultrasound flow meters for robust applications such as in the oil processing and petrochemical industries, in power plants or waste water treatment plants.

**Profinet: Cooperation with VW in Hall 17**

At the Volkswagen stand in Hall 17, we will be presenting the mock-up of a highly dynamic rack-store for the engine assembly line. Both the type and design of this, the first store of its kind, has been used at VW to supply the right traverse at the correct cycle time for each of the two models assembled in parallel. The highlights of the system are as follows: Communication via Profinet, a dynamic drive and control concept with Scalance WLAN technology and an operating technology with diagnostic function. Within a restricted space, we offer VW a high degree of flexibility in their mixed production line, involving high data and plant transparency throughout the entire manufacturing process.

A large number of Profinet systems are in operation in automated factories in all types of industry, and Industrial Ethernet has also demonstrated its practical viability in the transfer of time-critical data. For extremely time-critical data exchange, such as that required in motion control systems for coordinating numerous individual drives, special modules have been developed to provide a system-consistent, standard-compatible solution. Profinet makes consistent deterministic real-time communication available down to field level. It is a powerful bus system which is available for both standard data and real-time-critical machine data,

With its release 4.1 of Simotion control, A&D is providing extended Profinet functionality for modular machine concepts, enabling us to synchronize electrical with hydraulic drives. Moreover, the same Profinet interface can now be used to configure controls simultaneously as controllers and as devices. This controller-to-controller communication via Profinet now supports distributed axle synchronization across several controllers and helps implement universal automation solutions such as conveyor belts and press lines in the automotive industry. Simotion 4.1 ensures the synchronization of both electrical drives (including winders, cross-cutters, and roll feeds) and hydraulic drives as used in deep-drawing presses.

Flexible selection of controller and device classes means that tasks such as centralized machine logic and motion control can be split up simply and implemented in single modules. Automatic topology recognition in Profinet means that an existing configuration can be adapted to new tasks or market requirements without requiring re-configuration via a new programming unit.

**Safety Integrated – Extended portfolio**

Safety-critical applications to protect humans and machines have a high priority rating in automation and thus form an important technological field in which Siemens A&D has held a leading position for many years. With its Safety Integrated approach, A&D benefits from existing expertise gained in all areas from engineering to maintenance, while using existing network structures for safe communication. Safety-related communication is handled via Profinet and Profibus DP and is also available in wireless form.

At Hanover Fair, A&D continues to extend its Safety Integrated portfolio by launching two new fail-safe devices for factory automation. The CPU 319F-3 from the Simatic S7-300 series as well as the input and output module EM 4 F-DI / 3 F-DO of the ET 200S peripheral system. The new CPU is designed for applications requiring the utmost performance and safety-related functions, e.g. in the manufacturing of presses and in turn-key plants. The device has integrated Profibus and Profinet interfaces and can act as a proxy between the bus systems to take on fail-safe communication via Profisafe which complies with the standard. The digital, fail-safe ET 200S input and output module is made to meet the requirements of SIL 2/cat.3 as well as standard applications in production machinery and machine tools.

We will also be showing a wireless operating unit which has a number of safety functions: The Simatic Mobile Panel 277 Wireless has two acknowledge buttons and one emergency stopping button. Its safety function use has been tested and certified in accordance with SIL3.

The Sinamics S120 drive system also receives additional safety functions in its new release 2.5. They support the simple and standard-compliant implementation of innovative safety concepts. The extended safety functions include Safe Stop 2, Safe Operating Stop, Safe Brake Ramp, Safely-Limited Speed and Safe Speed Monitor and complement the existing integrated basic safety functions. They support the

reliable monitoring of the drive in operation and temporary shutdowns in the case of set-up or maintenance work. As the position control normally remains active during a shutdown, the specified service of the drive axle is resumed without delay once the exceptional situation has ended. Maintenance work can be carried out safely, reducing downtimes for machines or plants.

## Energy efficiency as a growth opportunity for industrial equipment manufacturers

Global power consumption is set to nearly double between now and 2025. The premium prices today commanded by raw materials and energy are underscoring the need for more efficient technologies in power generation, water treatment, mining, manufacturing and transportation. However great the diversity of our customers' production facilities may be, their corresponding plants should consume as little power as possible, in other words, there is a need for energy-efficient design, integrated energy management and energy-optimized devices.

Siemens is the only company worldwide to provide their customers from industry or infrastructure with an integrated portfolio ranging from power generation and distribution to its efficient transformation at factory level and in infrastructure projects – from high and medium voltage to low voltage in commercial buildings or at the field level in a factory. Our approach to leveraging the energy-saving potential is integrated electrical power distribution in the form of Totally Integrated Power (TIP), covering all stages from planning, installation, and operation to maintenance and service. TIP obtains leverage here from the broad product range and the full expertise of several Siemens Groups, including A&D, PTD (Power Transmission and Distribution) and SBT (Siemens Building Technologies).

## Savings potential in industrial drives

Systems driven by electric motors account for almost 70 per cent of the power consumed in industry. According to the German central association of the electrical industry (ZVEI), 36 TWh p.a. could be saved in Europe alone if, in auxiliary industrial processes, uncontrolled drives used in pumps, ventilators and compressors were replaced by speed-controlled drives which can be operated to suit each application.

The share of energy wasted each year through resistors, for instance, corresponds to about one per cent of the total consumption of all industrial plants which comes to approximately 2.5 billion euros per annum. Another 7 TWh – or about 500 million euros – could be saved by using efficient power-saving motors. Based on today's electricity prices, the investment in new motors will pay back in roughly two years.

Mainly in the power-intensive industries such as automotive or metal working, where the cost of energy accounts for about 40 per cent of overall costs, energy efficiency is one of the most decisive competitive factors. Each and every system and product will need to be designed for energy efficiency in the future whereas today it is often the lowest purchasing price that decides on an investment in drive systems. This situation will gradually change as systems, machines, and plants are increasingly judged by their total life cycle costs. As a rule, the purchasing price of drives accounts for only 10 per cent of the total life cycle costs and therefore represents only a minor cost optimization potential. Our efficiency enhancement technologies therefore range from high-performance components to energy management systems and drive systems with an energy balance which are tailor-made to suit the specific requirements of each industry.

**New energy-efficient drives**

At last year's conference here in Frankfurt, I mentioned our regenerative inverters and our energy-saving motors of the NEMA series for the US market. We are extending our technological leadership in this drive segment and continuing along the path towards more energy-efficient products. It is only by having complete mastery of all segments including controls, converters, motors and gears that the full efficiency potential can be leveraged for our customers. It is quite clear for us that, as manufacturers, we must control the further development of such technologies within our own ranks.

The acquisitions of Flender and Robicon about two years ago added to our drive portfolio and strengthened our access to major growth sectors in the process industry. Our great performance in drive systems will again be fully reflected at Hanover Fair 2007. As an extension to our portfolio, we will be launching the new generation of Robicon Perfect Harmony. It excels by simple commissioning, utmost voltage quality and maximum availability, as also features a smaller footprint than the

previous generation. It is a well-known fact that perfection is not reached by adding features but by minimizing the number of elements required to ensure full working order. We have reduced the number of components in Perfect Harmony by 15 per cent over the previous version.

In our new range of IEC low voltage motors we have also significantly increased efficiency whilst keeping the unit volume low. The 1LE1 series will be available in efficiency classes EFF1 and EFF2. The highly efficient EFF1 motors come with copper rotors reaching very high effiencies. This saves up to 40 per cent of the power dissipation of a conventional motor.

Ladies and Gentlemen,

As worldwide leading industrial equipment manufacturer boasting an integrated portfolio, we are on a profitable growth course in all technological segments. With UGS's PLM software technology, we are also opening up an entirely new dimension in digital engineering and data management. This will enable inno-vative automation for our customers throughout their entire value chain. At Hanover Fair 2007, we will be able to demonstrate yet again that we not only apply trends in production but also help shape them at a global level. I am looking forward to seeing you there.