Innovative advantage: success
Our leading technologies and solutions ensure our customers’ success
The 1,500+ researchers and developers at Oerlikon have one common goal: to break through the boundaries of what is technically possible and create new solutions that give our customers a competitive advantage. By integrating different fields of technology and key skills in one organization, we provide the ideal environment for this.
Breakthroughs into new markets
Our aim is not only to optimize existing products, but also to venture into new markets with pioneering discoveries and developments or to develop new markets from scratch. Being a high-tech industrial corporation and making use of the driving force of technical progress, we generate growth and corporate value.
Annual Report 2006
The positive business trend for Oerlikon Group continued in 2006. The acquisition of Saurer represents a milestone for the expansion of the company and significantly increases the Group’s potential for growth. The acquisition trebled the number of employees in the Oerlikon Group to more than 19 000, with sales of CHF 4.7 billion (consolidated annual sales in 2006 of Oerlikon [CHF 1.7 billion] and Saurer [CHF 3.0 billion]). In addition, the acquisition led to a significant expansion of its regional presence and manufacturing capacity, in particular in Asia. Oerlikon is now represented in around 170 locations in 35 countries.

The new segmental structure has considerably increased Oerlikon’s efficiency and innovative strength

<table>
<thead>
<tr>
<th>Corporate key figures</th>
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<tr>
<td>in CHF billion</td>
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<tr>
<td>Orders received</td>
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<tr>
<td>Orders on hand</td>
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<tr>
<td>Sales</td>
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<td>EBIT (in CHF million)</td>
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</table>

“We have been able to grow above market average, particularly in those segments with strong sales. We expect to continue these positive trends in 2007.”

Thomas Limberger
CEO

“Clear structures and responsibilities together with maximum customer orientation are key to exceptional growth in all our business areas.”

Dr. Uwe Krüger
COO
The full effects of the reorganization introduced in 2005 came to bear in 2006 with an increase in net profit of CHF 21 million to CHF 302 million, and an increase in EBIT from CHF 34 million to CHF 329 million. With an equity ratio of 25 percent, and an operating cash flow of CHF 355 million, Oerlikon continues to have a solid financial base. The share market reacted to this positive development with a 204 percent increase in share price to CHF 603.

Sales of the Oerlikon Group increased, including the consolidated values for Saurer for the months of November and December 2006, by 42.7 percent from CHF 1.6 billion in 2005 to CHF 2.3 billion in 2006. Orders received improved by 80.9 percent from CHF 1.5 billion to CHF 2.6 billion. Excluding the consolidated figures for Saurer, the orders received increased by 42.9 percent to CHF 2.1 billion. Together with a high stock of orders for the new Oerlikon Saurer Textile segment worth CHF 825 million, the stock of orders of the Oerlikon Group in 2006 increased by 338.4 percent to CHF 1.6 billion.

Central segmental organization and management
These results have been brought about by a fundamental reorganization of the company into central corporate units, major parts of which were completed in 2006. The most important elements of this were the centralization of the company management through an operational holding company, the introduction of standardized, binding processes and the combination of business units into segments according to specific key competencies and technologies. This new central management is underpinned by the group-wide consolidation of SAP systems which was started in 2006 and will be completed in the first quarter of 2008.

The segmental organization is as follows:
- **Oerlikon Balzers Coating**
  - Systems
  - Solar
  - Services
- **Oerlikon Leybold Vacuum**
  - Systems
  - Services
- **Oerlikon Saurer Textile**
  - Fibers and Nonwoven
  - Filaments
  - Staple Yarn
  - Twisting and Embroidery
  - Special Parts
- **Oerlikon Graziano Drive Systems**
  - Gears and Components
  - Automotive Transmissions
  - Off-Highway Drivelines
  - Oerlikon Fairfield Drive Systems
- **Oerlikon Components**
  - Optics
  - Space
  - Solutions
  - Assembly Equipment

Thin-film coating for solar panels
A new focus for research and development is part of the realignment of Oerlikon. In 2006 a large number of innovative products and technologies were brought to market.
The segments combine specific technologies, machine and plant engineering and related services into one key competence. As a “coating powerhouse”, Oerlikon Balzers Coating contains all business units whose key competencies lie in thin film coating. Oerlikon Leybold Vacuum includes all vacuum technologies, from individual pumps all the way up to comprehensive vacuum systems with a significant engineering requirement, and maintenance services. The Oerlikon Saurer Textile segment includes an integrated portfolio of high-tech systems, technological know-how and services, which covers the entire value-added chain of the textile industry. This organization exemplifies Oerlikon’s strategy as a total solution supplier. The Oerlikon Graziano Drive Systems segment develops among others leading drive technologies for the automobile and energy industries and therefore offers excellent synergy potential for existing Oerlikon key markets, in particular in the Oerlikon Balzers Coating segment. Oerlikon Components focuses on the development and construction of precision components. This reorganization has resulted in the previous business units of Wafer Processing and Data Storage being merged into the Oerlikon Balzers Coating, Systems business unit and the previous Oerlikon Essec Semiconductor being incorporated in the Oerlikon Components segment as business unit Assembly Equipment.

Transformation program
All the specific measures making up the company’s realignment were consolidated into one strategic initiative, collected into one Transformation Program and controlled by the Project Management Office (PMC) software tool (see page 52). In this way the realignment was implemented in a very short time for our customers, our markets and our technologies. A specific action plan was defined for every company, to improve efficiency in production and administration, to open new sales opportunities, to strengthen the sales force or pursue regional expansion. The effects were felt particularly strongly in the business unit Displays, which was transformed in 2006 into the new business unit Solar. The move out of the display market and further development of the technology for the solar products market led from a 2005 loss in double figures of CHF millions to a positive EBIT, also in double figures of CHF millions, in 2006. Other areas where the positive effects of the transformation were strongly felt were the reorganization of production at Leybold Vacuum, resolution of quality problems in turbomolecular pumps, and reintegration of wafer processing production at St. Petersburg, USA.

Rebranding to Oerlikon
The decision taken at the General Meeting of May 23, 2006 with a large majority to change the name of the company from Unaxis to Oerlikon is an expression of the integration and unity of the company. The name is also a clear indication of the industrial tradition of the company and is associated with the Swiss values of quality, reliability, precision and creativity. The rebranding of all business units was implemented worldwide in the second half of the year. For the first time in its 100-year history, the company has a standard external appearance under the brand name “Oerlikon” and internally is creating a common group-wide identity and culture. The reorganization and new market appearance have created a flexible platform which promotes organic growth and facilitates the integration of acquired companies.

Acquisition of Saurer
The positive effects of this can already be seen in the integration that is underway of recently acquired Saurer. The acquisition of Saurer is a decisive step on the chosen growth path of the Oerlikon Group. This traditional company with over 150 years of history had an excellent reputation in all regions. Saurer is a world leader in its business fields of textile machinery and drive systems, both from a technological and economic perspective. The deal went through exceptionally quickly and smoothly. The Board of Directors of Saurer recommended that its shareholders accept the increased offer of CHF 135 per share and then actively supported the acquisition process and the initial stages of integration. As a result, we can now derive the maximum benefits and synergies.

Saurer was a well-managed company with a decentralized organization and management structure. Embedded in the management and organization of Oerlikon, the synergies of related key competencies in high-tech machine and plant construction are showing their effectiveness.
The integration of staff and business activities in the Oerlikon Group is in full swing. The starting point for this was a Global Leadership Meeting held at the beginning of the year and involving over 150 managers. The individual integration projects are operationalized and implemented in joint teams.

Above-average market growth

The positive results in the 2006 business year were boosted in particular by Oerlikon Balzers Coating, Services, Oerlikon Leybold Vacuum and Oerlikon Assembly Equipment, which had above-average development in their markets. Oerlikon Balzers Coating, Services grew by 11 percent, which was more than double the figure for the international coatings market. In 2006 an additional 8 coating centers were opened in Japan, China, Korea, India, the Czech Republic, Germany and the USA. The acquisition of American company Gold Star Coating, Services significantly improved our position on the US market. With 77 coating centers, Oerlikon Balzers Coating, Services currently has the world’s most consolidated network of coating centers.

Oerlikon Leybold Vacuum was also able to expand its business with a growth in sales of 12 percent, which is around three times the figure for the market in general. Oerlikon’s position in the process industry was particularly strengthened. Extensive restructuring in this segment led to an increased EBIT margin of 11 percent.

Another major contributor to sales was the Oerlikon Assembly Equipment business unit, which was able to increase its market share.

In only its first year, Oerlikon Solar was able to post received orders worth hundreds of millions. It was not possible to completely convert these orders into sales at the planned level, because changes to customer requirements postponed some deliveries to the current business year. These sales will now be realized in 2007.

Trading for Oerlikon Balzers Coating, Systems and Oerlikon Component, Optics was a little more restrained. The markets for both business units are undergoing a period of transition; in the optical data carriers sector from conventional CD formats to Blu-ray-discs with high storage volumes; in the projection systems sector from conventional video projectors to laser biased light sources.

It is pleasing to note, however, that even in these areas, it was still possible to increase profit margins. The positive effects of the efficiency enhancement measures and the new pricing strategies can clearly be seen here.

Oerlikon Saurer Textile continued to expand its market position in the 2006 business year. Orders received rose by 37 percent (excluding acquisitions and currency effects 25 percent) to CHF 2.3 billion, and sales by 13 percent (excluding the above 3 percent) to CHF 2.0 billion. Orders on hand at year-end was at its highest ever level at CHF 825 million. Following the acquisition of Fairfield Manufacturing Inc. in February 2006, Oerlikon Graziano Drive Systems became the international market leader for special transmissions, complete drive systems, gears and loose gears, with locations in Western and Eastern Europe, the USA, India and China.

Leading position in technology further expanded

In the 2006 business year, Oerlikon further expanded its leading position in technology and invested CHF 260 million1 in research and development. Including the employees of Saurer, there are over 1 500 researchers, developers and engineers currently working for Oerlikon.

The reorganized structure of segmentation according to key competencies has given a major boost to the group's innovative strength. Innovation management has been integrated and is centrally led, enabling research and development projects to be tightened and focused and ground-breaking technologies to be brought to market faster and with greater success. Some examples of this are:

Thin-film solar modules

The biggest success story of the Oerlikon Group has been the Oerlikon Solar business unit. Oerlikon is the world’s only supplier of production facilities for the manufacture of thin-film solar modules in amorphous silicon. The technological advantage over the competition is around 12 months. Through internal development and targeted acquisitions, such as UK-based laser specialist Exitech, it is now possible to carry out the entire manufacturing process of solar modules in one automated workflow and with proprietary technology.

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1 Aggregate expense for research and development over whole year 2006, Saurer and Oerlikon.
This enables Oerlikon Solar to offer an integrated turn-key total solution from one source. Major orders, such as those from SCHOTT Solar and ErSol Thin Film, led to increased sales and orders received and confirmed the industrial maturity of the Oerlikon process. The next generation of technology is already on its way from the laboratory to production: facilities for the manufacture of double-coated solar modules which, through an additional coating of crystalline silicon, better utilize the light spectrum, thereby increasing efficiency from about 6.5 percent to over 10 percent and so achieving a similar magnitude to conventional solar cells. This new type of facility will be launched on the market in the second half of 2007.

**P3e™ coating process**

With P3e™, Oerlikon Balzers Coating, Services has brought a forward-looking coating technology to the market, which combines a number of coating processes and enables Oerlikon to tap into new areas of application in the medium term. For the first time, P3e™ enables the hardest coatings to be produced using the Physical Vapour Deposition (PVD) process. Up to now, this has required Chemical Vapour Deposition (CVD) technology, which, with temperatures in excess of 1,000 degrees Celsius, has severely limited the possible applications. Oerlikon Balzers Coating has developed and launched both the technology and the facilities for this (INNOVA), many of which have already been supplied to customers. Feedback from customers and the response in professional circles has been incredibly positive.

Hard disk manufacture with RACETRACK

With completely newly developed production facilities for the coating of hard disks (RACETRACK), Oerlikon Balzers Coating, Systems has achieved a leading technological position in this growth market. These facilities use forward-looking PMR technology (Perpendicular Magnetic Recording), which increases the storage capacity of hard disks tenfold.

**New MAG W 300 vacuum pumps**

At the end of the year, Oerlikon Leybold Vacuum started to supply a new platform for turbomolecular pumps in the form of the MAG W 300. These pumps have a new drive system and magnetic bearing, which enables high pumping speeds to be achieved with the smallest dimensions and minimum vibration. Through this, Oerlikon Leybold Vacuum will be able to further strengthen its market position, in particular in research and the process industry.

Textile fiber manufacture with 7-meter spunbond

With a 7-meter spunbond line, Oerlikon Neumag is setting a new industry standard for the manufacture of artificial fibers. Using specially developed technology for joining and separating synthetics, systems with this width can produce the same quality as smaller systems. This new technology not only means lower investment costs and very low energy consumption, but also significantly less waste.

**Laser projection**

By acquiring a holding in Californian company Novalux Inc. in the middle of 2006, Oerlikon Optics received access to a new laser technology and is using it to develop new kinds of projection systems. This new technology has impressive brightness and true color. Laser chips render the installation of multiple components, less components results in less production cost for projection systems. Initial prototypes were supplied to customers at the end of 2006 and the first products with these new light sources should come onto the market during the course of the current business year. The first models of pico projectors and televisions to use this new laser technology have already been on display at this year’s Consumer Electronics Show in Las Vegas.

**Dual Clutch**

Oerlikon Graziano Drive Systems is developing prototypes for a new, automatic dual clutch transmission. This new type of transmission enables automatic gear changing without loss of power, resulting in faster, jolt-free acceleration. In the current business year, Oerlikon Graziano Drive Systems will present this forward-looking transmission technology to a number of vehicle manufacturers and it is so far the only independent transmission manufacturer that can produce a power train of this kind.

**Efficient semiconductor assembly**

Oerlikon Assembly Equipment increased its production performance by up to 40 percent with the new Die Bonder 2008 hS™. A new pick & place module was developed and a faster vision system was integrated.
Entry into fundamental research
In order to retain and further develop a lasting technological advantage with such innovations, Oerlikon decided in 2006 to invest in fundamental research and to construct a new international research center for this purpose. So far, R&D activities have been predominantly product-focused – fundamental research in the real sense exists only rudimentarily. In these new facilities, additional scientists and developers will be employed to work centrally on a number of areas of research, including nanotechnology, intelligent materials and surfaces and mechatronics. This center is planned to go into operation in 2008 and a location study is currently underway.

Massive increase in share value
The capital market reacted positively to developments in the Group’s key data, which led to a significant increase in the share price. As a result of a major increase in value of more than 200 percent and a stock market capitalization of over CHF 8.5 billion, Oerlikon was included in the STOXX 600 and was recognized as the most successful European share in 2006 there in. The share price rose from CHF 198 (closing price on December 30, 2005) by 204 percent to CHF 603 (closing price on December 29, 2006). Market capitalization increased in the twelve months of the reporting period from CHF 2.8 billion to CHF 8.5 billion.

Capital base with strong growth
At December 31, 2006, the balance sheet total of the Oerlikon Group stood at CHF 6 billion compared with CHF 2 billion at the end of 2005. Net liquidity inclusive of marketable securities stood at CHF –589 million at December 31, 2006. Following a figure of CHF 706 million for the 2005 reporting period, this represents a CHF 1.3 billion decrease. The increase in inventories by CHF 733 million to CHF 970 million arises mainly from the acquisition of Saurer.
Investment in fixed assets at CHF 161 million was significantly higher than the level of the previous year (2005: CHF 88 million). Equity at the year end amounted to CHF 1.5 billion, which corresponds to an equity ratio of 25 percent.

Outlook
The Oerlikon Group will continue along its growth path in the current business year. Its global footprint has been significantly strengthened by the acquisition of Saurer. Following the corporate reorganization, the regional expansion and globalization of the business will be pursued vigorously. At the same time, a number of new products are only at the very beginning of their marketing campaigns and product lifecycles.
Overall, we are optimistic that we will be able to continue to achieve above-average growth in our markets and to realize profit margins above average through efficient management of the Group. Orders received of CHF 2.6 billion, which increased by 81 percent in 2006, is a good indicator for strong organic growth of the business in 2007.
The Oerlikon Balzers Coating segment recorded excellent operating results in 2006. Strong demand was reflected in a marked increase in orders to CHF 1 195 million, an increase of 86 percent compared to the previous year. Successful product innovation enabled Oerlikon to extend its leading position in all business units on the international coating market and a strategic service initiative also had positive effects on margins. The biggest increase in sales came in the Solar unit.

**Increased order intake and expansion of technological leadership**

### Key figures of Oerlikon Balzers Coating

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<th>2006</th>
<th>2005</th>
<th>Change</th>
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<tbody>
<tr>
<td>Orders received</td>
<td>1 195</td>
<td>642</td>
<td>86%</td>
</tr>
<tr>
<td>Orders on hand</td>
<td>478</td>
<td>100</td>
<td>377%</td>
</tr>
<tr>
<td>Sales</td>
<td>816</td>
<td>806</td>
<td>1%</td>
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<tr>
<td>EBIT</td>
<td>135</td>
<td>–20</td>
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"In 2006 we managed to considerably improve our market position in all business units with new technologies and products and have thereby created an excellent starting point for further growth during 2007."

Dr. Hans Brändle
Head of Oerlikon Balzers Coating
Executive Vice President
Coating Services
In a stable economic climate, the market volume for coating services was around CHF 1.4 billion in 2006. There was continued moderate growth in Europe compared with growth rates of up to 42 percent in emerging regions in Asia and America. Oerlikon Balzers Coating, Services clearly exceeded the market’s growth rate with an increase in sales of around 12 percent compared with the previous year. There were positive developments in demand for coating services for tools and precision components as well as for turnkey coating systems. Oerlikon Balzers Coating, Services is the clear market leader with a market share of 30 percent and it was able to increase its lead over the competition in 2006. With 77 current locations, Oerlikon Balzers Coating, Services has access to the largest network of coating centers in the world.

Milestones in 2006
- Oerlikon acquires tool coater Gold Star Coating, the third largest in the USA, enabling it to optimize logistics and productivity in North American business and to sustainably strengthen its position as market leader.
- Oerlikon sets a new standard with the development of the revolutionary P3e™ coating process. P3e™ combines the advantages of the current PVD (Physical Vapour Deposition) and CVD (Chemical Vapour Deposition) processes and opens up completely new market potential in the design of high-performance tools.
- New locations: Oerlikon opens eight new coating centers in six countries, including its first center in the Czech Republic as well as two motor sport centers in England and the USA.
- Breakthrough in automotive sector: Oerlikon wins large orders for series production coating of diesel engine components (fuel injectors, piston pins) with diamond-like carbon coatings (DLC) and builds an in-house coating center on the customer’s premises in Brazil.

Outlook
The market for coating services should continue to develop favorably over the course of the current year. All the signs point to further positive developments in existing areas of application. In particular, the strong growth in Asia will continue. Oerlikon Balzers Coating, Services is again predicting growth rates above the market average and an increase in market share. In order to meet the requirements of proximity to the customer, Oerlikon Balzers Coating, Services will increase its current presence in various countries and also open up new countries. The business unit is also developing products that will enable it to tap into new areas of application. For example, with the new P3e™ technology, it will be possible in the medium term to recoat certain tools using the PVD process and in doing so replace CVD coating.

Hitachi achieves a quantum leap with new INNOVA coating equipment
Hitachi Tool Engineering Ltd., the first customer to use the new INNOVA coating equipment, Mr. Nobuhiko Shima, President and Representative Director of Hitachi Tool Engineering Ltd., commented as follows: “Even our first tests with INNOVA have clearly shown its advantages. Extensive benchmark tests have then confirmed that the new INNOVA coating equipment is currently the best on the market for tool coatings.”

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Oerlikon processes represent a quantum leap for tool efficiency. We think the INNOVA coating equipment is currently the best on the market for tool coatings.”
Coating Systems
The Oerlikon Balzers Coating, Systems business unit – previously the Wafer Processing and Data Storage units – is excellently positioned from a technological perspective. Oerlikon provides the leading products in all market sectors – optical storage media, hard disks, mask etching systems and wafer coating. However, the markets for optical media in particular are undergoing a period of change to new high-performance formats (Blu-ray), meaning that customers are currently postponing their investments.

In coating systems for re writable optical data storage Oerlikon has confirmed its worldwide leadership with a market share of over 90 percent. Competition between the HDDVD and Blu-ray storage formats meant that the DVD market only grew slowly by 10 percent and was subject to strong price competition. Operating results improved significantly compared to the previous year as a result of major cost savings.

Following an excellent start in the global coating market for Blu-ray-discs, Oerlikon has already captured a 30-percent market share. Leading suppliers in the USA and Asia have been equipped with the first facilities (INDIGO).

In the hard disk sector, Oerlikon Systems is well-placed with market-leading production facilities (RACETRACK) for the next generation of hard disks (Perpendicular Magnetic Recording, PMR).

In a stable environment, the Wafer business had a good overall sales and revealed product solutions for forward-looking 300 mm wafers, among other things. Versaline etching systems for connective semiconductors, MEMS and thin-film heads showed significant increases in margin. The positive response to the new GEN V mask etching system leads us to expect that we will gain market share in the photomask sector in the current year.

Ricoh
In a strategic partnership, Ricoh (Japan) and Oerlikon Balzers Coating, Systems jointly develop and market the next generation of optical disc technology. In 2007, the Ricoh production process for Blu-ray-discs will be available together with Oerlikon’s INDIGO replication system as a turn-key solution. Katsunori Nakata, General Manager of Ricoh’s optical disc business: “Oerlikon has a unique technology platform and a leading market position. We look forward to a long and successful cooperation to develop the Blu-ray-disc market.”

Unique technology platform and leading market position at Blu-ray

Milestones in 2006
- Oerlikon introduces the first production facilities in the world (INDIGO) to meet the needs of industry for the mass production of Blu-ray-discs and agrees cooperation agreements with major Blu-ray manufacturers. The first systems are delivered to key clients in the USA and Asia and prove their worth with high levels of efficiency and process stability.
- In the hard disks sector, Oerlikon introduces the innovative RACETRACK coating system using new PMR recording technology, which will increase the data density of future hard disks tenfold. RACETRACK sets new standards in technology and productivity; the first facilities were supplied to a leading customer in the industry at the beginning of 2006 and proved to be a success.
- Oerlikon launches the new Mask Etcher GEN V mask etching system for the next generation of high-performance computer chips with nanostructures. The market response is very positive; following successful beta tests, orders have already been received from market-leading semiconductor manufacturers.
Outlook

The outlook for Oerlikon Balzers Coating, Systems is generally very promising. The attractive Blu-ray market, re-equipment in the hard disk industry with PMR technology, the advance of the Solid State Lighting (SSL) LED lighting technology, and increased demand in the MEMS sector (telecommunications, optical sensors), mean that we can expect increased profitability and solid growth in all units in 2007.

Solar

The global photovoltaic market continues to prosper with growth rates of over 40 percent. By the year 2010, it is expected that global solar energy production will quadruple (10 gigawatts) with a sales volume of more than CHF 90 billion. Oerlikon Solar established itself in 2006 with an innovative advantage of around 12 months as the world’s only supplier of turn-key production facilities for the mass production of large-surface thin-film solar modules made from amorphous silicon. Within a short period of time, Oerlikon Solar achieved a leading position in this future market and is best-placed in the most important sales territories of Europe, USA and Asia. With a high level of orders and high double-digit profit margins, this new business unit has far exceeded the expectations placed on it.

Oerlikon’s production technology is the industry leader owing to its efficiency and wide range of application options for large-surface modules.

The acquisition of the UK-based laser specialist Exitech Ltd. and targeted technology cooperation has enabled Oerlikon to integrate important process stages and we can now offer the whole value-added chain – from untreated glass sheets to fully functioning solar modules – in one step.

Milestones in 2006

- With a new TCO (Transparent Conductive Oxide) system, Oerlikon Solar for the first time covers the whole production process from untreated glass sheets through to finished solar modules and further increases efficiency.

- Oerlikon Solar receives large orders totalling CHF 120 million from the leading European solar suppliers, SCHOTT Solar and ErSoL Thin Film. The first fully integrated Kai 1200 PECVD coating systems are delivered at the end of December – two weeks before the agreed delivery date.

- Oerlikon develops the next generation of thin-film solar cells to production level: the tandem cell made of amorphous and crystalline silicon (µc-Si) which has an efficiency of 10 percent. Market entrance is targeted for the second half of 2007.

- The staff of Oerlikon Solar increases from 32 (at the end of 2005) to 103 (at the end of 2006).

Outlook

In the 2007 business year, Oerlikon Solar is expecting to increase its order volume to a capacity of over 300 megawatts. The further development of Oerlikon Solar’s thin-film technology will reduce the cost of electricity generation from solar energy significantly in the coming year. The introduction of the next generation of products will further enhance Oerlikon’s market position for thin-film solar modules.

SCHOTT Solar

As one of the world’s leading companies, SCHOTT Solar provides forward-looking solutions in photovoltaics and solar thermal energy. Alexander Berg, Managing Director of SCHOTT Solar GmbH, says, “We do not compromise on our quality requirements. Oerlikon sets clear benchmarks within the solar industry – we are pleased to continue our successful partnership with them.”

Oerlikon sets clear benchmarks in the solar industry
Oerlikon Leybold Vacuum
The segment Oerlikon Leybold Vacuum was able to achieve excellent results in every respect in 2006. Sales increased by 12 percent to CHF 430 million, thereby achieving more than three times the general market growth of around 4 percent. Orders received grew by 14 percent to CHF 444 million and orders on hand by 32 percent to CHF 59 million. EBIT grew from CHF –4 million to CHF 47 million compared to the previous year.

Growth clearly above market average and expansion of solutions business

Applications & products

- Systems
  - Fore vacuum pumps
  - High vacuum pumps
  - Consultancy and development of vacuum solutions
  - Vacuum measurement equipment
- Services
  - After-sales services and training
  - Leak detectors
  - Flanges
  - Valves and fittings

Key figures of Oerlikon Leybold Vacuum

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<tr>
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<th>2006</th>
<th>2005</th>
<th>Change</th>
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<tr>
<td>Orders received</td>
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<td>390</td>
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<tr>
<td>Orders on hand</td>
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<td>45</td>
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<tr>
<td>Sales</td>
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</tr>
<tr>
<td>EBIT</td>
<td>47</td>
<td>–4</td>
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</tbody>
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“When it comes to winning new market potential in Europe, the USA and Asia, it is of prime importance to accelerate development and launch technology and product innovations.”

Thomas Babacan
Head of Oerlikon Leybold Vacuum
Senior Vice President
With highly specialized engineering expertise and far-reaching service know-how, Oerlikon sets new standards in the world of vacuum. A strong market revival, particularly in the process industry, successful implementation of programs to increase efficiency in customer support, and consistent pursuit of product innovation – these are the cornerstones of the above-average growth and high profitability in this segment.

Oerlikon Leybold Vacuum, Systems
The efficiency enhancement program that was launched in 2005, referred to as “Operational Excellence”, came to a conclusion in the middle of 2006. The aim was to improve the cost structure and increase efficiency and the results are there for all to see. The break-even point was lowered significantly by a comprehensive series of measures covering marketing and sales, administration and product development. Productivity was increased by improved utilization of capacity, combined with beneficial effects from global sourcing. Improved processes and a respectable increase in profitability enabled the Systems business to greatly strengthen its position in all regions and areas of application in 2006. The SCREWLINE range of oil-free pumps was, as before, one of the biggest selling products with which Oerlikon Leybold Vacuum was able to tap into new areas of application, in the process industry in particular, and to achieve significant market shares, especially in Asia and the USA. Sales for this product range were more than doubled in 2006.

Oerlikon Leybold Vacuum was able to develop its technological position through a range of innovations. The PhoeniX L leak detector, newly launched on the market, has had great success; in the measuring sector, the segment introduced a combined measuring instrument which brings together two different measuring principles; the tried-and-trusted RUVAC fore vacuum pump range has been completed by the addition of explosion-protected versions (ATEX). The market launch of the MAG W 300 turbomolecular pump in the fourth quarter marked the successful beginning of a wide-ranging product offensive with a completely newly developed, revolutionary generation of magnetically levitated turbo pump systems. The pumps in the MAG W 300 range are particularly suitable for oscillation-sensitive applications of analysis technology, thin-film technology, electron microscopes, research, development and similar technically demanding and forward-thinking applications. Its stable operation provides the highest pumping speeds and excellent compression rates in a compact design and in any installation position. Additional flexibility is provided by the option to install the pumps with an integrated converter or to choose a separate converter as a tabletop unit.

On the basis of these leading products, Oerlikon was able to win and advance significant major orders for research and development projects from leading institutions in fundamental, laser and space flight research.

KATRIN
The Karlsruhe (Germany) research center is currently home to the most precise scales in the world. KATRIN (KArlsruher TRItium Neutrino Experiment) will for the first time determine the mass of the neutrinos created when an atomic nucleus decays. The scale of this, the largest ultra-high vacuum chamber in the world, is enormous. Using a main spectrometer 10 meters in diameter and 24 meters long, measurements are to be taken under vacuum conditions in a measurement range of \(3 \times 10^{-34}\) grams. Oerlikon Leybold Vacuum has developed the vacuum technology that this requires.
Oerlikon Leybold Vacuum, Services

In order to further develop and permanently expand its Service and Consulting business, Oerlikon Leybold Vacuum launched an international Customer Care Program in the first half of 2006 for the individual care of complete vacuum systems (“service all under one roof”).

For customers who have a significant base of vacuum pumps installed, this involved identifying the actual need for service and maintenance using a customer-specific analysis. The result is that customers receive a maintenance package tailored to their needs, which may also include the maintenance of third-party products.

Increased investment and innovation in tailored after-sales services and training led to excellent results in the second half of the year. We were able to agree long-term contracts with big-name clients such as Seagate (storage media), Osram and Sylvania (lighting systems) and ABC Fuel (automotive).

Outlook

Oerlikon Leybold Vacuum expects continued stable growth for 2007. Key to winning new market potential in Europe, the USA and Asia is the accelerated development and launch of leading technologies and product innovations. So for example, the platform for the MAG molecular pumps is being expanded with additional systems for analysis and research. New product lines will also provide a powerful sales impetus in ultra-high vacuums and cryotechnology (low-temperature technology). Increasing industrial investment in analysis, research and development continues to have a positive effect on the demand for innovative vacuum solutions.

CERN

CERN in Geneva is the world’s largest research institute for particle physics. The Large Hadron Collider (LHC) is currently under construction. This is a so far unique particle accelerator. As from the beginning of 2007, within a circumference of 27 kilometers, proton rays will be accelerated to nearly the speed of light by means of supra-conductive magnets and will then be caused to collide. Such tests will require a high vacuum and without suitable vacuum technology, the particles which have been accelerated to top energy levels cannot reach their target. With the use of vane type rotary pumps, leak detectors, valves and tailor-made, partially mobile pump systems, Oerlikon is involved in the search for the very smallest of particles.

World's largest particle accelerator with Oerlikon vacuum pump
The SCREWLINE screw type vacuum pump is among the most successful products of Oerlikon Leybold Vacuum. It requires no greasing and very little maintenance.

Operational Excellence
In 2006, Oerlikon Leybold Vacuum introduced a cost reduction program under the name of “Operational Excellence”, which also included a reorganization of its manufacturing and led to a considerably improved level of utilization and efficiency of all production sites.

The sales and service support in the growth market of Asia was also expanded by the addition of new maintenance lines in China, Taiwan, Japan and Korea as well as the opening of a service center in India. The creation of a new competence center for cryotechnology in Dresden (Germany) enabled us to provide a location close to the customer with a comprehensive service range. With 23 service locations of its own as well as a network of qualified agents, Oerlikon Leybold Vacuum currently has access to the world’s largest sales and advice network in this sector.

Milestones in 2006
- Introduction of the Customer Care Program and its first successes in contractual agreements with big-name clients
- Expansion of service competence in Asia through additional capacity and locations
- New competence center for cryotechnology in Dresden with proximity to key customers and comprehensive services

Outlook
Oerlikon expects the service business to continue to grow in 2007. We aim to win new customers through increased sales campaigns and by adding service for third-party products to our range.
Oerlikon Saurer Textile

In the financial year 2006, this segment, with its five Business Units, achieved new orders of CHF 2.3 billion. This is 37 percent higher than the prior year total of CHF 1.7 billion (adjusted for acquisitions and currency effects plus 25 percent). At CHF 2 billion, sales were 13 percent (adjusted 3 percent) over the prior year. At the end of the year, orders on hand stood at CHF 825 million, the highest level ever achieved.

Oerlikon Saurer Textile is a worldwide total solutions provider in the field of textile machines and equipment

Applications & products
- Fibers & Nonwoven
  - Staple fiber plants
  - Nonwoven plants
  - Carpet yarn plants
- Filaments
  - Filament yarn plants
  - Texturing systems
- Staple Yarn
  - Spinning preparation systems
  - Rotor spinning systems
  - Ring spinning systems
  - Winding systems
- Special Parts
  - Components for the textile industry
- Twisting & Embroidery
  - Twisting systems
  - Embroidery systems
- Filaments
  - Filament yarn plants
  - Texturing systems

Key figures of Oerlikon Saurer Textile

<table>
<thead>
<tr>
<th>in CHF million</th>
<th>2006</th>
<th>2005</th>
<th>Chance 11-12/2006*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order intake</td>
<td>2,257</td>
<td>1,651</td>
<td>37%</td>
</tr>
<tr>
<td>Orders on hand</td>
<td>825</td>
<td>611</td>
<td>35%</td>
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<tr>
<td>Sales</td>
<td>2,044</td>
<td>1,816</td>
<td>13%</td>
</tr>
<tr>
<td>EBIT</td>
<td>78</td>
<td>97</td>
<td>22%</td>
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</table>

* The data for November/December 2006 is consolidated in the figures of the Oerlikon Group.

“The high level of orders on hand, the consistently good state of the most important textile markets and the increasing effects of the Oerlikon Saurer Textile growth program, all mean that we can expect to see a higher sales in 2007. By continued integration in the Oerlikon Organization, technological and economic synergies will continue to exploit the potential of the Oerlikon Saurer Textile business segment.”

Dr. Carsten Voigtländer
Head of Oerlikon Saurer Textile
Executive Vice President
Oerlikon Saurer Textile’s customers benefit from a life-cycle partnership along the entire value-added chain, from plant design, via start-up, to a comprehensive after-sales service. The high number of orders on hand, the consistently good state of the most important textile markets with the announced extension of the State program of support for investments in India and Turkey, and the increasing effects of the Oerlikon Saurer Textile growth program, all mean that we can expect to see a higher sales in 2007.

By continued integration in the Oerlikon Organization, technological and economic synergies will continue to exploit the potential of the Oerlikon Saurer Textile business segment.

Fibers and Nonwoven

The Oerlikon Fibers and Nonwoven Business Unit, with the product brand Oerlikon Neumag, is market leader for production plant for BCF carpet yarn and synthetic staple fibers and offers the world’s largest technology portfolio for nonwoven production. With sales of 2006 the sector just failed to match the excellent level of the prior year.

Based on increased demand from Turkey and the USA, the business unit was, however, able to maintain a high market share of 75 percent and to increase its sales for BCF plant. In the field of staple fiber plant, a fall in investments, particularly in the primary market of China, led to substantial drops in sales, as against an increase in sales for nonwoven plant.

Milestones in 2006

- Oerlikon Neumag acquired projects in the important nonwoven production processes Spunbond, Airlaid and Carding and successfully positioned itself as a total solutions provider.
- At the end of July, Oerlikon Neumag opened the applications technology College in Linz, Austria with a full range of nonwoven production plant, bringing together the technologies of the acquired companies FOR, Autefa and Fehrer for the first time.
- With the Italian nonwovens producer Albis, Oerlikon Neumag concluded a contract for the world’s largest nonwoven spinning plant (production width: 7 meters). This innovative plant complex sets new technological standards for productivity and efficiency.

Outlook

Overall in 2007, increased sales is expected. Low levels of demand for BCF plants is likely to be compensated by a slight increase in demand for specialty fibers. The new plant technology in the field of nonwoven will have a positive impact on demand and market position in this segment, as well the continuing integration of the technologies of FOR, Autefa and Fehrer.

Filaments

With a market share of 40 percent, the Filaments business unit, which includes the brand Oerlikon Barmag, is world leader for the spinning plant markets for nylon, polyester and polypropylene, and for texturing machines. In the texturing business, the focus was on China, as per the prior year. With new sites in China and other important Asian markets, the service infrastructure was given a considerable boost.
With the launch of the Autocoro 360-408, Oerlikon Schlafhorst offers the world’s longest automatic rotor spinning machine.

The launch of the new semi-automatic rotor spinning machine BD 380 made a substantial contribution to success in 2006.

Outlook
With a healthy order book and high levels of new orders, the Staple Yarn business unit is looking forward to the year 2007 with great positivity. The continuation of state support programs, such as the TUF (Technology Upgrading Fund) Program in India, are also promising for a sustained high level in the second half of the year. The consolidation of the former Saurer business to the newly-formed Staple Yarn business unit will serve to improve Oerlikon Saurer Textile’s market presence and customer orientation still further.

Twisting and Embroidery
The Twisting and Embroidery business unit, with the brands Oerlikon Allma, Oerlikon Volkmann, Oerlikon Melco and Oerlikon Saurer, covers the process of yarn twisting and the processing of yarn into textile works of art (Embroidery).

Both areas returned positive results in the financial year 2006.

Chil-Sung FiberTech (CSFT):
The South Korean textile producer Chil-Sung FiberTech (CSFT), with sites in Asia and America, is a specialist in polyester and nylon texturing. When putting together a new site in South America, CSFT decided to invest in new COCOON texturing machinery from Oerlikon Barmag. The machinery won them over with its low energy output and excellent price-performance ratio in the mid range field. I.T. Joo, Chairman of CSFT, says: “The introduction of COCOON is an important step forward for Oerlikon Barmag. The plant is ideal for our requirements and has enabled us to move forward efficiently in building our new premises.”

COCOON – Oerlikon Saurer Textile sets new quality standards
## Milestones in 2006

### Twisting
- With the launch of the highly efficient cabling machine, Oerlikon Allma CC-Easy, which is predestined for use in mass markets, the position of world market leader in the tire-cord fabric segment was achieved. It has already attracted an initial bulk order for 40 machines.
- Thanks to a breakthrough in the specific motor spindle technology, Oerlikon was able to increase its market share for motor spindles to 30 percent in the carpet market.
- In the clothing staple market segment, Oerlikon succeeded in winning back the leading position in the primary markets of India and China from the local competition.
- With a new glass filament ring twisting machine, Oerlikon Volkmann managed to enter the attractive glass filament market and has already finished its first bulk order.

### Embroidery
- Successful business development in the field of embroidery received significant support from the entry of the Oerlikon Saurer Epoca 05 2-1, which is up to 20 percent more efficient onto the market.
- Particularly worthy of mention is the newly launched laser technology, which, in combination with the embroidery process, takes the customers’ design options into new dimensions.
- With the introduction of the Oerlikon Melco AMAYA XT modular multi-head embroidery machine with optimized application, double-figure growth rates were achieved both in the USA and on the international markets.
- Thanks to innovative and market-driven products, solutions and services, Oerlikon Saurer Textile has been able to consolidate and build upon its leading market position, also in the current financial year.

### Special Parts
- The Special Parts Business Unit consists of Oerlikon Brands which are active and successful internationally: Accotex, Daytex, Enka Tecnica, Heberlein, TEMCO and TEXParts, which specialize in the development, production and sales of high-tech components and systems for textile machines. Through extensive knowledge and understanding of the yarn manufacturing process, Oerlikon Special Parts is extremely well-positioned to serve OEMs and end customers alike. The business area is present worldwide through exclusive agency representation, and the principal markets are Europe and Asia.

### Outlook
- According to our forecast, the sales for 2007 in the first half of the year will be similar to levels of the last few months, with a slowdown in demand likely in the second half of 2007. With its individual total solutions, Oerlikon Special Parts will increase its customer proximity and customer loyalty; here again, the greatest growth markets will be China and India.

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**Leemann Stickerei AG, Switzerland**

The use of laser technology in embroidery used to be limited to particular work processes. By integrating lasers in embroidery machines and processes, Oerlikon Saurer Textile has managed to tap the full potential of speed and design. Thomas Leemann, the owner of Switzerland’s Leemann Stickerei AG: “First of all, we only thought about specific individual advantages, such as complex contour cutting. Since then, we have discovered undreamt-of possibilities, and so have our designers.”

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**Laser technology opens new dimensions in embroidery**
Oerlikon Graziano Drive Systems
Following the acquisition of Fairfield Manufacturing Inc. in February 2006, Oerlikon Graziano Drive Systems is now the international market leader for special transmissions, complete drive systems, planetary gears and loose gears, with sites in Western and Eastern Europe, the USA, India and China. Sales increased by 52 percent to 936 million CHF.

International market leader through the acquisition of Fairfield Manufacturing Inc.

Applications & Products
- Gears & Components
  - Agricultural vehicles
  - Construction machinery
- Automotive Transmissions
  - High-performance cars
  - All-wheel vehicles
- Off-Highway Drivelines
  - Construction machinery
  - Agricultural vehicles
  - Material handling
  - City buses
  - Commercial vehicles
- Oerlikon Fairfield Drive Systems
  - Mining and surface mining
  - Railway
  - Marine applications
  - Industrial and special applications

Key figures of Oerlikon Graziano Drive Systems

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
<th>Change</th>
<th>11-12/2006*</th>
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<tbody>
<tr>
<td>Orders received</td>
<td>936</td>
<td>615</td>
<td>52%</td>
<td>154</td>
</tr>
<tr>
<td>Orders on hand</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Sales</td>
<td>936</td>
<td>615</td>
<td>52%</td>
<td>154</td>
</tr>
<tr>
<td>EBIT</td>
<td>81</td>
<td>40</td>
<td>102%</td>
<td>14</td>
</tr>
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</table>

*The data for November/December 2006 is consolidated in the figures of the Oerlikon Group.

“We are now a global player, undisputable world market leader in the gearing components field, by size and volume, by range of technologies and solutions, by manufacturing presence.”

Dr. Marcello Lamberto
Head of Oerlikon Graziano Drive Systems
Senior Vice President

“Oerlikon is like a catalyst for us. Its worldwide presence, extensive and varied know-how and the strong brand identity have clearly strengthened our opportunities.”

Gary Lehman
Head of Oerlikon Fairfield Drive Systems
Senior Vice President
Oerlikon Graziano Drive Systems supplies top-performance transmission systems for luxury and sports cars

Due to an expanded product range and the combined know-how in research and development, Oerlikon Graziano Drive Systems is well prepared for strong organic growth in specific segments of the automobile sector, in particular also in the off-highway market. The key figures for the 2006 financial year show sales of CHF 936 million. This represents an increase in sales of 52 percent over the previous year.

**Oerlikon Gears & Components**

In 2006, the Oerlikon Gears & Components unit was able to further consolidate its leading position in the agriculture and construction industry markets and at the same time gain shares in the mining and surface mining, construction equipment, rail systems and aerial work platforms sectors. A decisive factor in this was the development of customer-specific all-in-one solutions and successful positioning in countries with strong growth. For example, sales in core business on the Indian market increased by more than 10 percent. Promising opportunities also opened up as a result of a push into new customer segments, such as maritime drive systems and transmission components for motorcycles.

**Milestones in 2006**

- Signing of important long-term contracts with leading manufacturers in the agriculture, mining and surface mining industries, such as General Electric, CNH and JCB.
- Orders to develop prototypes for potential customers in the growth markets of Russia, Belarus and Turkey.
- Decisive extension of production and market position in Asia through the expansion of the plant in Delhi (India) and a new manufacturing site in Suzhou (China).

**Outlook**

In 2007, the Oerlikon Gears & Components business unit expects continued sustainable and increasing growth in the key markets of agriculture and construction industries, mining and surface mining, construction machinery and rail drive systems. The targeted strengthening and development of the market position in existing and new customer segments through innovative, complete product and engineering solutions form a sound basis for continued successful business development.

**Aston Martin Lagonda Ltd.**

Aston Martin Lagonda Ltd. is one of the most renowned sports car manufacturers. The vehicles developed by the company are legendary and enjoy cult status. Oerlikon Graziano Drive Systems is supplying the transmission components for the latest generation of these high-performance cars (DB9 and V8 Vantage). “In just 14 months – from the assignment of the order to production – Oerlikon Graziano developed the rear differential for the DB9. An excellent performance, which was a major contributing factor in realising our objectives”, says Dr. Brian Fitzsimons, Chief Engineer, Aston Martin Powertrain.
Oerlikon Automotive Transmissions
The Automotive Transmissions unit develops and produces top-quality transmissions and drive systems for the specific submarkets of luxury vehicles, sports cars and all-wheel vehicles in the global automobile industry. Following a period of consolidation and process optimization in 2005, this business unit was able to successfully position itself in 2006 as a supplier of key systems for complex, electronically controlled transmissions.

Milestones in 2006
- Successful start to transmission production for the new Aston Martin V8 – which is already registering great success on the market.
- Completion of important development programs, including those for the automatic and manual transmission of the new high-performance Audi R8 sports car and for the rear differential of the Maserati Quattroporte Automatica.
- Signing of a contract with a leading automobile manufacturer to develop a transmission system for all-wheel vehicles.
- Further progress in the construction of prototypes for a global all-wheel drive platform for General Motors.
- Development of a continuously variable transaxle for the Ferrari 599 GTB.

Outlook
The positive market trend in luxury and sports cars as well as in all-wheel drive vehicles will continue in 2007. Oerlikon Automotive Transmissions will push on with technological advances in these segments through a strong commitment to innovation and expects to see clear growth in sales in the coming business year.

Oerlikon Off-Highway Drivelines
In the Oerlikon Off-Highway Drivelines unit, Oerlikon focuses on leading expertise in drive technology for special commercial vehicles for the agricultural and construction industries as well as goods and passenger transport. The targeted development of the product and service portfolio into a comprehensive supply structure for all-in-one solutions led to very good operating results in 2006 and opened up access to new market sectors. Against the backdrop of favorable economic development and by winning new project orders, this unit achieved significant increases in sales in the 2006 reporting year.

CNH
The CNH Group is the world leader in the manufacture of agricultural and construction machines. When it comes to developing drive systems, CNH has demanding requirements of its supplier partners with regard to capacity, productivity and quality. Alberto Leonardi, CNH Senior Director Purchasing, says:

“Even when we make complex major orders for transmission systems, Oerlikon Graziano Drive Systems ensures that we have the highest levels of productivity and quality and with comprehensive service – and that's anywhere in the world!”
Business overview Oerlikon Fairfield Drive Systems

Milestones in 2006

- Major expansion of its position in the oil and energy market as the preferred supplier of gear products to the off-shore drilling segment through a supply and development contract with Gusto MSB for high quality drive systems for oil drilling platforms.
- Supply orders from Haulotte, Europe’s leading manufacturer of aerial work platforms. The decisive factor in winning this order was the European presence of Fairfield since 2006.
- Establishment and implementation of a sales office in the Asia-Pacific region.
- Agreement of long-term contracts with companies such as SPX and Sauer-Danfoss.

Outlook

In 2007, Oerlikon Fairfield Drive Systems expects continued and sustainable growth in the energy sector, in mining and surface mining and in drive components for rail systems. The consistent strengthening of its market position in existing and new sectors through a broad range of new, highly specialized products and total engineering solutions forms a stable platform for continued successful business development.

Hydraquip

Innovative Oerlikon Fairfield planetary drive systems are used to raise and lower oil drilling and exploration platforms out at sea. Mr. Mel Victory of Hydraquip Corporation states: “Oerlikon Fairfield Drive Systems meets the demanding performance needs of the lift- and workboat industry. Fairfield’s S60 planetary drive offers improved operating performance and longer life. Knowing that the experienced, expert team of Oerlikon Fairfield Drive Systems is available at all times provides the lift boat owners and operators with a strong sense of security”.

High performance by Oerlikon Fairfield Drive Systems
Oerlikon Components

With an 8 percent increase in sales from CHF 416 million (2005) to CHF 450 million (2006), an operating profit of CHF 59 million and an EBIT margin of 13 percent, the Oerlikon Components segment achieved good results in 2006. This includes the operating figures of the former Oerlikon Esec Semiconductor segment (now Assembly Equipment).

Applications & Products

Optics
- Projection displays
- Live science
- Laser material processing
- Optical packaging
- Automotive
- Lighting

Space
- Payload fairing
- Satellite structures
- Scientific instruments
- High-precision mechanisms
- Electro-optical systems

Solutions
- Customized plants, machines and components for Oerlikon business units and external customers

Assembly Equipment
- Die Attach
- Wire Bonding

Key figures of Oerlikon Components

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orders received</td>
<td>436</td>
<td>423</td>
<td>3%</td>
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<tr>
<td>Orders on hand</td>
<td>195</td>
<td>210</td>
<td>-7%</td>
</tr>
<tr>
<td>Sales</td>
<td>450</td>
<td>416</td>
<td>8%</td>
</tr>
<tr>
<td>EBIT</td>
<td>59</td>
<td>59</td>
<td>-8%</td>
</tr>
</tbody>
</table>

“In the newly formed Oerlikon Components segment we as technology leader combine our proven know-how in several disciplines such as project management, operations and supply chain management. This is a good basis for growth, customer focus and at the same time improves our customer support levels.”

Kurt Trippacher
Head of Oerlikon Components
Senior Vice President

Winning customers and expanding market segments with new innovative solutions

➤ www.oerlikon.com/components
Within the Oerlikon Components segment the two business units Oerlikon Assembly Equipment and Oerlikon Solutions shared above average growth throughout the year. All the business units managed to improve their market positions with innovative new solutions.

Oerlikon Optics

The business development of Oerlikon Optics was on the one hand characterised by intense price pressure in the Projection Display sector, which led to a decrease in sales; on the other hand, there was strong growth in Advanced Components in the important sub-markets of Consumer Electronics (MEMS), Life Sciences (Biochips) and Automotive (night vision systems). With a view to creating new prospects for Oerlikon Optics in the medium and long term, the acquisition of UK company Exitech further expanded our know-how in laser technology and it was incorporated from an organizational perspective in this business unit. Oerlikon Optics also makes this competence available to other business units, such as Oerlikon Solar. Together with our holding strategic investment in Novalux (USA), which develops innovative laser based light sources for projection systems, this has given birth to a new area of competence within Oerlikon, simply called “Laser”.

The development of the next generation of laser-based projection systems is all going according to plan.

Milestones in 2006

- By acquiring shares in its American technology partner Novalux, Oerlikon invests in the future market for laser-based projection technology, which is gaining ground in the Consumer Electronics unit (pico projectors, Laser TVs) and in the automobile industry (head-up displays). Further development of Novalux technology by Oerlikon Optics reduces the production costs of laser-based projection systems by up to 20 percent. Initial prototypes were supplied at the end of 2006.

- Oerlikon acquires UK-based laser specialist Exitech and thereby gains leading knowledge in the growing laser micro-material processing sector. Organizationally, Exitech is part of the business unit Optics, but one of its main areas of application is the manufacture of solar cells (Oerlikon Solar).

- Sales in life science substrates (biochips) increases by 33 percent compared to the previous year.

- Oerlikon expands its production site in Shanghai, where key components for the series production of MEMS-based microdisplays are produced.

Outlook

2007 will see the decisive impetus for the success of laser-based projection systems, when the first products (Laser TVs, pico projectors) come onto the market. In the Advanced Components segment, Oerlikon is concentrating on the Optical Packaging, Imaging and Automotive sectors, where sustainable double-digit growth rates are expected. There will be high organic growth from using Exitech laser technology on the photovoltaic market – both for Oerlikon Solar and in third-party customer business. In the projection display market, which continues to be subject to pressure on price and margins, Oerlikon aims to stand out from the competition through targeted innovations and increased service initiatives.

Payload Fairings made by Oerlikon Space

Oerlikon Space supplies payload fairings for all Ariane-5 rockets. These protect the satellite during launch and are later jettisoned at a height of 100 km, a process calling for extreme precision. NASA has also started to use payload fairings from Oerlikon Space, for example on its recent Pluto mission.
Oerlikon Assembly Equipment

In 2006, the market for Assembly Equipment had a volume of CHF 4.4 billion, corresponding to an increase of 16 percent compared with the previous year. A considerable improvement in the economic climate led to increased demand in the semiconductor industry. Oerlikon Assembly Equipment benefited from this development in 2006 and achieved an increase in sales of 23 percent from CHF 192 million to CHF 236 million. This growth in sales clearly exceeded the market average. Orders received increased from CHF 206 million to CHF 222 million. The reasons behind these excellent operating results are, in addition to strong market demand, excellent ability to supply, short lead times and the successful market launch of new products. Optimized manufacturing processes and improved flexibility at the Cham site as well as the transfer of Wire Bonder production to Singapore resulted in improved efficiency and, combined with a strong increase in sales, in higher yields.

Milestones in 2006

- The Die Bonder 2008 HS™ platform introduced in 2005 is a resounding success on the market. With an increased production output of up to 40 percent owing to a new pick & place module and the integration of a new, faster vision system, it provides considerable added value for the customer. Further innovative solutions, in particular in the sector for thin chips for the production of stacked die, confirm Oerlikon’s market leading position in the die bonder sector.
- In the second quarter, Oerlikon Assembly Equipment introduces the Wire Bonder 3100™ with new high-performance technology (double-gripper indexer) and the world’s fastest changeover time. This increases productivity by up to 30 percent. This is a perfect complement to the existing Wire-Bonder product family which is now in excellent shape for 2007.
- Oerlikon Assembly Equipment transfers Wire Bonder production to Singapore with great success and in doing so continues to expand its global presence.

Micronas

A fruitful relationship has been ongoing between Micronas, the worldwide producer of semiconductors and Oerlikon Assembly Equipment – both companies derive long-term benefits from each other’s know-how. Oerlikon develops solutions to match its customers’ needs closely. “It is in particular those revolutionary developments which assist us greatly with the achievement of continuous improvements in terms of quality and cost efficiency and thus with securing the sustainable competitiveness of our European manufacturing sites”, says W. Łowinski, General Manager and Vice President Operations Backend, when explaining the high customer benefits.

Oerlikon Assembly Equipment supports its customers’ sustainable success

Outlook

Based on a growth forecast for the chip market, Oerlikon Assembly Equipment expects a seasonal weakening of the back-end equipment market in the first half of 2007. As the maximum output of chip manufacturers is always in the fourth quarter as a result of Christmas trading, major investment in systems is expected from the semiconductor industry in the second half of the year.

Oerlikon Solutions

Oerlikon Solutions (formerly Mecanovis) is engaged in the specialist construction of turn-key systems, mechanical components and high-vacuum systems. A main focus of Oerlikon Solutions is the supply of Oerlikon business units. The strategy of also positioning this unit as an outsourcing service provider in third-party customer business paid dividends in 2006, and it was able to win several major customers among them a leading producer of optoelectronic systems. Orders received showed a marked increased in comparison with the previous year. Among the reasons for these excellent results was a greater than proportional increase in business activity for Oerlikon Solar and improved diversification in the customer portfolio.
Milestones in 2006
- Integration of Mecanovis in the new Oerlikon group and renaming as Oerlikon Solutions AG.
- On-time delivery of the first turn-key production facilities for thin-film solar modules (KAI 1200).
- Successful start to strategic cooperation with Oerlikon Solar as a system supplier (sourcing, manufacture, assembly, function tests).
- Increasing business development with a key customer in the vacuum chambers, cooling plates and fasteners sector.

Outlook
Business development for 2007 shows a very positive trend. Group-internal orders from Oerlikon Solar and from third-party customers provide continued high-capacity utilization and a continuation of the growth trend.

Oerlikon Space
In the commercial space industry, the Space business unit is a world leader in the development and manufacture of payload fairings for launch vehicles. Oerlikon Space saw increased demand in this key market by the end of 2006. The order to supply key components for the Galileo European Satellite Navigation System and the development partnership in the Small Geo space project for telecommunication satellites contributed to a stable business trend. In contrast however, in the institutional space market, various ESA programs were delayed. In the non-space sector, the market position was improved through mechanisms for lithography applications.

Milestones in 2006
- Following the successful launch of the Pluto mission, NASA also decides to use Oerlikon payload fairings for the transport of the Mars Science Laboratory planetary mission.
- Oerlikon Space wins the order for the solar array drive mechanisms (SADM) for supplying solar power to the first four Galileo navigation satellites.
- Successful launch of the first of three European METOP climate research satellites with leading technology from Oerlikon on board.

Outlook
In the institutional space market, Oerlikon Space expects stabilization of its market share at a high level in 2007. The Space unit also expects to see increased returns in the commercial space industry, in particular with market entry in European satellite communication, a marketing initiative for SADM solar technology in the USA and the Far East as well as the general expansion of business activities on the American space market. The non-space sector will receive positive growth impetus from the strategic partnership with Carl Zeiss SMT AG and an increased commitment in the aerospace industry.

Texas Instruments
High-tech corporation Texas Instruments produces MEMS-based microdisplays for the latest TV and projection technologies. Oerlikon Optics supplies key components for the new cost-efficient series production (“wafer level packaging”): coated glass panes with the highest precision surface structure, which seal the high-performance chips free of particles.

Vacuum chambers for various applications
In addition to leading suppliers of optical precision systems, global machine and plant engineering companies also use the know-how of Oerlikon Solutions for the production of high vacuum chambers. Subject to customer requirements, the services supplied by Solutions include the engineering and manufacturing sectors, from surface processing to vacuum cleaning and customer specific testing.

Coated glass panes with high precision surface structure
Longtime now-how from Oerlikon Solutions
Employees
They are the driving force behind our innovation and growth, the foundation on which Oerlikon’s leading position in the international high-tech industry is built. With passion, courage and flexibility of thought and deed, they develop products and solutions that shape the success of our customers. They march to the beat of the market and their common base is the Oerlikon corporate values: Excellence, Innovation, Teamwork, Integrity.

Oerlikon employs over 19,000 people from 48 cultures in 35 countries at 170 locations across the world

<table>
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<th>Development of employees</th>
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<td>6,434 2005</td>
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<td>19,267 2006</td>
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The successful development of the company led to an increase in staff in 2006. At the same time, with the successful restructuring of the company, 2006 saw the creation of around 200 new jobs. Oerlikon ensures the efficiency and performance of the global organization by centralizing the global function of Human Resources Management and by using targeted measures to recruit and develop employees.

The rebranding as Oerlikon and the reorganization of the company laid the foundations in 2006 for realizing our full potential. On the labour market, Oerlikon has a highly visible presence as a high-tech leader and is a very attractive employer for all job categories, whether technical or sales. The introduction of a common performance culture based on corporate values has quickly led to employees being able to identify more with the company and to better motivation. Tremendous synergy and inspiration resulted from cross-segment and supra-regional cooperation and knowledge networking.

The acquisition of Saurer has almost trebled the workforce to 19,000 employees. At the Global Leadership Meeting in January 2007, the senior management of Oerlikon and of former company Saurer adopted the operational plan for the cultural and organizational consolidation of the company. A committed project team is coordinating the integration.

**Corporate Human Resources**

Human Resources Management was reorganized at group level in 2006, in order to manage efficiently the global transformation process of the Oerlikon Group and to ensure the sustainable efficiency of the company. The main tasks of Corporate HR are primarily the generation of added value in organizational performance in cooperation with our segments, the operational establishment and implementation of the HR business model taking into account our corporate values, the harmonization of organizational structures and working procedures, systematic employee development and the realization of staff potential including variable remuneration systems, as well as integration management following strategic acquisitions. Around 200 HR specialists around the world handle local implementation and support at segment and regional level. Leading systems for human resources management (SAP) and talent management (ExecuTrack) increase the efficiency and transparency of the Group-wide HR organization.

**Promoting technical apprenticeship and training**

One of Oerlikon’s clear aims is the development of technical occupational training in order to ensure the long-term availability of skilled employees. By 2009, the number of those undergoing training will increase by 20 percent. This year, Oerlikon Balzers Coating is offering 27 new apprenticeships. Major investment is expanding the technical infrastructure of the apprentice workshops in Trübbaeh.

At the Cham site, an occupational analysis has been carried out and the results confirm the effectiveness of the skilled training carried out so far. The number of apprentices to be recruited per year and profession remains constant – irrespective of significant market fluctuations. The number of trainees is set to rise again in the coming years to 30 (2007: 22). The excellent cooperation with Oerlikon Balzers occupational training is being extended.

Once again a trainee will be representing Oerlikon at this year’s World Skills Competition in Japan. Oerlikon has a tradition of close cooperation with
recognized training institutes. That’s why the German Chamber of Industry and Commerce carries out final examinations for the new Machine and Equipment Operator certifiable profession at Oerlikon Balzers Coating in Bingen, Germany.

Oerlikon Leybold Vacuum offers training at the Vacuum Academy at the Cologne site, where employees and customers can receive practical training in the different areas of application of vacuum technology. Also Oerlikon Leybold Vacuum provides at the Vacuum Academy, Cologne, educational and professional development where employees and customers receive trainings in line with the stand usage in different ranges of application of vacuum technology.

The training center in Switzerland at the Balzers/Trübbach site last year trained over 2,000 employees at specialist technical courses and seminars. It should be emphasized that all these training activities are geared towards a needs-oriented and integral approach.

**Systematic employee development**

The Group-wide competence model, which was developed in 2006 on the basis of the corporate strategy, is at the same time the basis for almost all employee development measures – such as the Oerlikon Leadership Challenge Program for our operational and management talent. This program, along with the Global Oerlikon Trainee Program, serves as a recruitment pool. Here we recruit our management trainees for our enterprises worldwide.

**Employee Management System (EMS)**

A web-based performance tool (Employee Management System) was introduced in 2006 to systematically record staff competencies and performance targets and combine them in a practical process. In a discussion between the employee and his/her manager, agreed targets, based on corporate aims, are made for the coming year, individual development plans are drawn up and support measures (training, coaching, etc.) are defined. The performance documented in the EMS forms the basis for the management review at the end of the year. This enables the management to gain a transparent overview of the competencies and development potential of employees – vital data for the global deployment of staff, for fostering talent and for succession planning. Employees can make applications via the EMS or communicate their career needs and so manage their professional development towards their own aims. The first cycle started in 2006 and involved 600 management staff around the world.

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### Employee by region 2006

- Europe: 63%
- Asia: 24%
- Americas: 11%
- Other: 2%

### Employee by segment 2006

- Corporate and other: 1%
- Drive Systems: 25%
- Coating: 18%
- Textile: 41%
- Components: 8%
- Vacuum: 7%
Oerlikon Leadership Challenge Program

Oerlikon Leadership Challenge Program is one of the central measures for the Group-wide development of our talented employees. Based on the Oerlikon competence model and corporate values, this enables us to develop a worldwide network of leaders, who all speak the same language when it comes to leadership and people management. Around 150 participants with leadership potential have gone through this very challenging program in the last three years. Mobilization is the key here – whereby we pay a great deal of attention not only to the transfer of knowledge and the provision of training platforms, but also to the application of the topics in practice. The success of the measure is assessed by a presentation to management at the end of the course by the participant.

Systematic employee recruitment

Employee marketing is becoming increasingly important. In 2006 our team was represented across the world at numerous important (university) fairs. Global online platforms enabled us to make contact with an international target audience.

Activities range from the presentation of the company in international job guides and relevant career magazines for those completing their studies through to partnership with important universities and institutes. The focus is on technology-oriented universities in each of our markets or growth regions, in order to meet the group’s need for well-educated specialists.

Candidates have the opportunity to take up important positions in the medium term either via direct entry or the Global Trainee Program. Highly-qualified talent develops into its target position through on- and off-the-job training.

In the Global Trainee Program, selection is made using an Internet-based process, which includes a virtual team project, and finally leads to an international assessment center in Switzerland. Here around 50 graduates from 22 countries were assessed in person. Ten people undergo a 15-month long program, during which they support the different business segments of Oerlikon across the globe.

Growth and flexibility

At the end of the year 2006, Oerlikon had a stable and positive staff situation in all segments. Approximately 200 new jobs have been created. The Solar unit saw the strongest growth, where the number of employees increased by 60 percent to 130. Many units are still looking to recruit staff – some 250 new positions for scientists and assisting personnel will need to be filled by 2008 in the Oerlikon research center alone.