WORLD MARKET LEADER FOR HIGH-TECH PRODUCTION SYSTEMS AND SERVICES FOR PULP AND PAPER, STEEL, AND OTHER SPECIALIZED INDUSTRIES.
Ladies and Gentlemen,
Dear Shareholders,

All in all, the Andritz Group succeeded in developing its business in a satisfactory manner during 2003. Despite persistent difficult economic conditions in most of the world, with only a slow improvement towards the end of the year, we were able to achieve the highest Order Intake in the Group’s 150-year history.

We see two main contributions to this favorable development of our business. The first is the continued strong focus on the development of new custom-tailored products through intensive R&D. The second reason is the continuation of our strategy to acquire companies that complement our existing product and technology range. Pursuing both goals has significantly improved our profile during the last years and has made us a leading supplier in all our Business Areas.

In this context, special mention must be made of the largest contract in the chemical pulping segment awarded this year, the greenfield pulp mill of Veracel (Joint Venture of Stora Enso and Aracruz) in Brazil. In July 2003, Andritz won the contract for supplying a complete market pulp fiberline - from the digester to finished market pulp bales, including the white liquor plant.

This reference demonstrates the attractiveness of our technology, our systems capabilities, and our project management experience to two of the most sophisticated and demanding pulp producers in the world (Aracruz and Stora Enso).

Not only were we selected as the preferred supplier but we were also able to offer competitive prices without overly sacrificing our long-term profitability targets. Our extensive efforts to reduce the costs of our systems and components, as well as our fixed costs, are paying off.

Both issues - technological leadership and a competitive cost structure - will continue to be clear goals in the coming year.

We will intensify R&D to develop new products that are both technically and economically superior. Our initiative today is to add functionality by using more efficient technology, and at the same time reduce complexity. New Andritz products shall precisely fit customer needs and reduce the overall cost of producing the end product. Customers will also save money during installation, in daily operation, and in maintenance.

In 2004 we aim at continuing our strategy of acquiring companies with complementary products and technologies in order to strengthen our profile as an overall supplier of complete systems and services in all our Business Areas. By purchasing IDEAS Simulation, Acutest, Fiedler, and Bird Machine, we have significantly expanded the high-value services we offer our customers. In addition we have further complemented our product capabilities in the Pulp and Paper as well as in the Environment and Process Business Areas. Our aim is to quickly integrate all four businesses into the Group so that we benefit from existing synergies and know-how available. In the Rolling Mills and Strip Processing Lines Business Area, full integration of the Selas furnace business, which was acquired in October 2002, is one of our major goals for 2004. We see Selas as a very important strategic complement to our product range. It offers superior process know-how and technologies for continuous hot-dip galvanizing and carbon steel strip annealing systems for high-end applications in the automotive industry.

We will continue with the expansion of our services business in all four Business Areas. This goal shall be achieved through continued focus on in-house R&D as well as through strategic acquisitions of service companies.
With regard to the fast growing Chinese economy, Andritz will continue with its careful expansion strategy. All Business Areas of Andritz have been increasingly active in this region. Having served Chinese customers for decades, over the last several years we have continuously expanded our local presence in China through the successful establishment of the Andritz-Kenflo Joint Venture in 1998 and the foundation of Andritz Technologies in 2001. Due to the successful business development of both companies, Andritz decided to expand capacities and recently opened a new state-of-the-art manufacturing facility in Foshan.

The combination of rapidly growing demand in developing countries and the availability of modern production equipment with substantial cost advantages should drive customer demand for Andritz products in the future.

Internally, we are proactively encouraging initiatives to lower our overhead costs through pre-emptive restructuring and selective outsourcing. Our structure is flexible enough to quickly integrate the complementary acquisitions without missing market opportunities or disrupting customer relationships. Wherever possible, we are eliminating redundancies and minimizing the associated overheads. One of our major goals for 2004 is the continued outsourcing of non-proprietary production tasks.

A very important milestone in the Andritz Group’s progress in 2003 was the successful Secondary Public Offering. Despite comparatively weak financial markets in the first Half of the year, we were able to conclude the Secondary Public Offering of Andritz shares via a public offering in Austria and a private placement with national and international institutional investors. Nearly 6.1 million shares from existing institutional shareholders - Carlyle, UIAG, GE Capital, and Deutsche Beteiligungs AG - were placed at 22.75 Euros per share.

This transaction increased the free float of our shares from 16% to 62%, making Andritz a real public company with significantly improved liquidity on the stock exchange. Through this successful transaction, Andritz increased its credibility and reputation in the financial markets, with a large number of renowned institutional investors now becoming shareholders or increasing their holdings.

The successful SPO and the 100 million Euro bond issue in May 2002 have created a solid base for future growth of the Group. Our solid financial position is a strength recognized by customers and suppliers as well.

The Managing Board would like to take this opportunity to thank all employees for their contributions and performance during the year under review. We have been able to hold and, in many cases, improve our position in a very difficult economic environment. This is a direct result of the contribution and diligence of each employee in the worldwide Group. We also thank our customers and business partners for the confidence they have placed in us, and assure them that we will perform to their requirements fully during the year to come.

The Managing Board Graz, February 2004
JANUARY
Andritz extends its services offering to the pulp and paper industry by acquiring IDEAS Simulation Inc., based in Decatur, GA, USA. IDEAS is a global market leader in dynamic process simulation, a key technology for start-up and production process optimization.

Andritz receives an order to supply a complete sewage sludge drying plant for the Valenton wastewater treatment plant near Paris, France. The Andritz Group is also awarded a contract for one of the world’s largest pulp drying plants for China.

FEBRUARY
Andritz publishes its results for Business Year 2002. Order Intake reaches 1.3 billion Euros - the highest level in the Company’s history.

MARCH
By acquiring Acutest Oy, a Finnish company specializing in acoustic condition monitoring, Andritz further strengthens its services expertise in pulp and paper. Acoustic condition monitoring equipment helps to detect cracks, leaks, vibration, and friction in process machinery and is therefore an excellent tool for preventive maintenance.

Andritz wins a 110 million Euro order for steel treatment plants from the ThyssenKrupp Stainless Group, one of the world’s largest producers of stainless steel. The order includes three cold-rolling mills and one annealing and pickling line for cold-rolled steel to be installed in Germany and China.

JUNE
Andritz wins another major order in the field of stainless steel: Chinese stainless steel producer Ningbo Baoxin Stainless orders a rolling mill and an annealing and pickling line for hot-rolled stainless steel strip, with a total order value of over 50 million Euros.

Andritz successfully concludes its Secondary Public Offering and places close to 6.1 million shares with retail investors in Austria and, via a private placement, with international institutional investors. The shares come from the shareholdings of the financial investors (Unternehmens Invest AG, The Carlyle Group, Deutsche Beteiligungs AG, GE Capital). The offer is subscribed several times, and the offer price is 22.75 Euros per share.

JULY
Andritz books its largest order in 2003. Veracel Celulose S.A. (Joint Venture of Stora Enso and Aracruz) entrusts Andritz with the supply of a complete fiberline (from digesting to baled market pulp) and a white liquor plant for a new greenfield pulp mill in Brazil.

SEPTEMBER
Andritz continues its successful expansion strategy in the services business by acquiring Heinrich Fiedler GmbH & Co. KG, Germany, a producer of custom-tailored screen baskets, rotors, pressure screens, and cleaners for the international pulp and paper industry.

OCTOBER
Andritz agrees to acquire Bird Machine, extending the product portfolio of its Environment and Process Business Area. Bird Machine specializes in the solid/liquid separation of sludges utilizing a broad range of large centrifuges and filter presses. Its services business accounts for more than half of total sales.

NOVEMBER
Andritz receives a Letter of Intent for a PrimeLine™ tissue machine from Swedish Tissue, a member of British LPC Group, which has successfully operated a tissue machine of the same type for two years in the UK.

DECEMBER
New operating speed world record for tissue machines achieved on Andritz tissue machine operating in China.
The Andritz Group’s strategy is to leverage its strong market position to become the leading supplier of production systems and processes in the Business Areas in which it operates. By building on its key strengths, the Group pursues this strategy by seeking to ...

**MAINTAIN AND ENHANCE ITS TECHNOLOGICAL LEADERSHIP.**

Andritz is committed to developing and manufacturing products that provide its customers with increasingly efficient, cost-effective, and reliable systems, equipment, and processes. To this end, Andritz will continue to invest in research and development activities in all Business Areas, with the co-operation of customers, to further develop existing technologies and create new products and services that enhance customers’ manufacturing capabilities.

**MAINTAIN AND ENHANCE ITS GLOBAL PRESENCE.**

Andritz endeavors to enhance its strong global sales presence further, by improving service capabilities and maintaining ongoing business relations with customers globally. Andritz seeks to achieve this objective in part through recently established local service centers in China and Indonesia, as well as in Brazil and Chile.

**ACHIEVE COMPLETE LINE CAPABILITY THROUGH PRODUCT DEVELOPMENT AND SELECTIVE ACQUISITIONS.**

Andritz believes that its customer base will increasingly seek full-service customization and more integrated production lines. Accordingly, Andritz intends to augment its product range in each Business Area by developing and/or selectively acquiring businesses that produce systems and equipment, as well as offer capabilities that complement those currently provided. This will
allow Andritz to design, supply, and service all, or substantially all, of the production lines, equipment, and processes demanded by its customers.

FURTHER EXPAND ITS SERVICES BUSINESS.

Service Sales accounted for approximately 30% of Andritz’s Group Sales in 2003, and have experienced faster growth in recent years than Sales derived from capital contracts. This is in line with the requirements of customers who continue to outsource service and maintenance activities. Andritz intends to continue to grow its services business, also to support the aim of maintaining its profitability during periods of adverse business and market cycles and to lessen its reliance on large projects. Recognizing the importance of a local presence for customer services, Andritz intends to achieve this goal both through the organic growth of its service business as well as, where appropriate, the strategic acquisition of specialist service providers in the local markets in which it operates.

CONTINUE TO EXPLOIT SYNERGIES.

Andritz intends to continue to exploit internal synergies in order to enhance its competitiveness. This will be achieved through technology transfers such as those derived from the Pulp and Paper Business Area to form the Environment and Process Business Area, the sharing of functional resources, and the sharing of marketing and after-sales service facilities. This will also allow Andritz to further reduce fixed costs, encouraging Business Areas unaffected by cyclical market variations to support those that are adversely affected.

PROACTIVELY MANAGE THE GROUP’S FIXED COSTS.

Andritz actively pursues a cost management strategy of maintaining a one-to-one “make/buy ratio” for the components used to produce its products. This allows Andritz companies to source a significant proportion of non-essential components, systems, and equipment from third-party suppliers, while focusing its in-house manufacturing activities on more complex key and high quality products. All main system components will be pre-assembled in-house to secure the highest quality possible. In periods of Sales contractions, the Group uses this strategy to reduce dependence on outsourcing, thereby maintaining in-house utilization levels and reducing external costs.

IMPLEMENT PRE-EMPTIVE RESTRUCTURING MEASURES.

Andritz’s manufacturing facilities support its Business Areas, and operate in markets around the world. Andritz continually evaluates the productivity of its manufacturing facilities, and actively rationalizes and restructures operations when it identifies opportunities to reduce operating fixed costs.
SUCCESSFUL SECONDARY PUBLIC OFFERING

The public offer of shares of Andritz AG to retail investors in Austria and the private placement with institutional investors (in pursuance of Regulation S) was concluded successfully in June 2003. The total amount of shares, comprising shares from the financial investors (Unternehmens Invest AG, The Carlyle Group, Deutsche Beteiligungs AG, GE Capital), was 6,089,379 shares, including full exercise of the entire over-allotment option of 424,841 shares. The offer price was 22.75 Euros per share and the offer was substantially oversubscribed. The shares offered were successfully placed with renowned international institutional investors as well as retail investors in Austria.

Due to this transaction, the free float of Andritz shares increased from approx. 16% to approx. 62%. Weighting in the ATX index went up from approx. 0.7% before the SPO to 2.3% as of 31.12.2003.

SHARE PRICE DEVELOPMENT

The price of the Andritz shares developed very favorably in 2003. With a year-on-year increase of 65.0%, it considerably outperformed the ATX, which rose 34.5% in 2003. The highest closing price during 2003 was 37.95 Euros (30.12.2003), the lowest 21.00 Euros (4.2. and 21.1.2003).

TRADING VOLUME

The average daily trading volume in 2003 was 45,410 shares, more than three times the volume in 2002 (13,255 shares). Especially during the second Half of 2003, the average daily trading volume increased to 61,717 shares, compared to 12,827 for the second Half of 2002, as a result of the substantial increase of free float.

The highest trading volume was recorded on 7.11.2003 (485,088 shares), the lowest on 11.3.2003 (116 shares).

KEY FIGURES FOR ANDRITZ SHARES

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2002</th>
<th>2001¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest closing price (EUR)</td>
<td>37.95</td>
<td>28.00</td>
<td>23.50</td>
</tr>
<tr>
<td>Lowest closing price (EUR)</td>
<td>21.00</td>
<td>19.40</td>
<td>20.52</td>
</tr>
<tr>
<td>Closing price at year-end (EUR)</td>
<td>37.95</td>
<td>22.99</td>
<td>21.30</td>
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<tr>
<td>Market capitalization as of 31.12. (MEUR)</td>
<td>493.4</td>
<td>298.9</td>
<td>276.9</td>
</tr>
<tr>
<td>Performance</td>
<td>+65.0%</td>
<td>+7.9%</td>
<td>+3.8%</td>
</tr>
<tr>
<td>ATX weighting as of 31.12. (%)</td>
<td>2.3250</td>
<td>0.6992</td>
<td>-</td>
</tr>
<tr>
<td>Average daily number of shares traded</td>
<td>45,410</td>
<td>13,255</td>
<td>19,802</td>
</tr>
</tbody>
</table>

¹) The first listing day of Andritz was on 25.6.2001. Inclusion in the ATX was from 1.1.2002.

Source: Vienna Stock Exchange

FINANCIAL CALENDAR 2004

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.02.2004</td>
<td>Results for 2003</td>
</tr>
<tr>
<td>30.03.2004</td>
<td>Annual General Meeting</td>
</tr>
<tr>
<td>02.04.2004</td>
<td>Ex-Dividend</td>
</tr>
<tr>
<td>08.04.2004</td>
<td>Dividend payment</td>
</tr>
<tr>
<td>10.05.2004</td>
<td>First Quarter of 2004</td>
</tr>
<tr>
<td>06.08.2004</td>
<td>First Half of 2004</td>
</tr>
<tr>
<td>08.11.2004</td>
<td>First three Quarters of 2004</td>
</tr>
</tbody>
</table>
INVESTOR RELATIONS ACTIVITIES

Andritz Investor Relations activities were further intensified in 2003. On the occasion of the publication of the results for 2002 and the quarterly reports for 2003, roadshows were held in Austria and in other countries, and one-on-one meetings with large institutional investors were organized.

Andritz also presented itself at various investment bank conferences, e.g. at JPMorgan’s capital goods conference in Zurich, Switzerland, at Bank Austria’s investors conference in Kitzbühel, Austria, as well as at ERSTE Bank’s conference in Bad Tatzmannsdorf, Austria. These presentations were attended by several renowned institutional investors and met with good response. Andritz also presented itself for the first time at the “GEWINN-Messe”, one of the largest European fairs for financial and capital investments, which was held in Vienna from October 16 to 19, 2003. In cooperation with the Vienna Stock Exchange Andritz took part in the Austrian Investors Conference in New York.

Due to its ongoing efforts in Investor Relations, Andritz once again received a stock exchange prize for its performance in the area of Investor Relations. Andritz came in third in the most important category, the “Austrian Financial Analysts’ Stock Exchange Award.” This award is conferred annually by the Austrian Association for Financial Analysis and Asset Management (ÖVFA) and the Austrian business magazine GEWINN. Assessment criteria include transparency of information policy, reliability of financial guidance and competence of Investor Relations officers. In 2002, Andritz received an award in the same category, and also for “Investor Relations Online.”

RESEARCH COVERAGE

The following banks and investment companies publish company reports on Andritz on a regular basis: Bank Austria/Creditanstalt, Berenberg Bank, Deutsche Bank, Erste Bank, JPMorgan, and Raiffeisen Centrobank (RCB).

KEY FIGURES FOR ANDRITZ SHARES

<table>
<thead>
<tr>
<th>ISIN Code</th>
<th>AT0000730007</th>
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<tbody>
<tr>
<td>First Listing Day</td>
<td>June 25, 2001</td>
</tr>
<tr>
<td>Types of Shares</td>
<td>no-par value shares, bearer shares</td>
</tr>
<tr>
<td>Number of Shares</td>
<td>13 million</td>
</tr>
<tr>
<td>Free Float</td>
<td>approx. 62%</td>
</tr>
<tr>
<td>Stock Exchange</td>
<td>Vienna (Prime Market)</td>
</tr>
<tr>
<td>Ticker Symbols</td>
<td>Reuters: ANDR.VI, Bloomberg: ANDR, AV</td>
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<tr>
<td>Stock Exchange Indices</td>
<td>ATX, ATXPrime, WBI</td>
</tr>
</tbody>
</table>

CONTACT

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On 1st October 2002, the new Austrian Corporate Governance Code took effect. This Code primarily applies to Austrian stock listed companies and covers the basic principles of efficient and transparent corporate control and management common in international business practice. It is based on the provisions of Austrian corporation law, securities law and capital markets law as well as on the OECD principles of Corporate Governance.

It is not in the form of a statute law, but in the form of a set of rules to which companies may comply at their own discretion. Besides important legal requirements, the Code contains regulations that are commonly used on an international level. Non-compliance with these practices must be explained and justified. Compliance by companies is “voluntary.”

The Austrian Code of Corporate Governance encompasses the following categories of rules:

1. Legal Requirement (L): this rule refers to mandatory legal requirements.

2. Comply or Explain (C): this rule is to be followed; any deviation must be explained and the reasons stated in order to be in compliance with the Code.

3. Recommendation (R): the nature of this rule is a recommendation; non-compliance with this rule requires neither disclosure nor explanation.

Andritz endorses compliance with the Austrian Corporate Governance Code. It regards the Code as an essential means to implement responsible management and control of Andritz which is directed toward creating added value. Implementation of and compliance with the Code will promote and intensify the confidence of shareholders, investors, customers, employees, suppliers, representatives of the media, and other stakeholders in the company. The Managing Board and the Supervisory Board, as well as the entire staff of Andritz, are committed to meeting the Code.

Andritz explains the deviations from the following C-rules as follows:

**RULE 38:** Andritz AG Articles of Association do not stipulate an age limit for its Managing Board members. Appointment of Managing Board members is solely contingent on personal and professional qualifications.

**RULE 42:** Andritz AG will not institute a strategy committee of its own. Andritz AG’s Supervisory Board is composed of experts in different fields who hold constructive sessions at regular intervals, to discuss, inter alia, strategic alignment. In this framework, the Supervisory Board is also involved in all strategic decisions of the Managing Board as a consultative body.

**RULE 61:** As the Internet - in contrast to the annual report - allows constant and continuous update of information, Andritz has decided to publish all information requested under rule 61 on its website and to update it if necessary.

**RULE 69:** Andritz AG is of the opinion that the notifications of share buy backs and sales by members of the Managing Board and Supervisory Board, which it is obliged to make to the Financial Market Supervisory Authority and the Vienna Stock Exchange pursuant to Article 91a of the Stock Exchange Act, represents a comprehensive, lawful means of ensuring equal treatment for all shareholders.

The complete Corporate Governance Code can be accessed and downloaded from the Andritz website (www.andritz.com). The website also contains the statement on the meeting of the Code with explanations to deviations.
GENERAL ECONOMIC CONDITIONS

In 2003, the global economy developed very moderately. The first six months were characterized by geopolitical uncertainty as a result of the war in Iraq, by the outbreak of SARS (Severe Acute Respiratory Syndrome) in Southeast Asia, and a lack of major economic impulses. As a result, economic development in the USA was very subdued in the first Half of 2003, all major economic indices having shown continued weakness. On account of this very moderate economic development, the Federal Reserve Board (the Fed) cut the US prime rate to 1%, the lowest in 45 years. Not until the second Half of 2003 were there some signs of recovery in the USA. Improving economic indicators and a strong development of the Gross Domestic Product (GDP) in the third Quarter signaled growing economic revival.

The economy in Europe developed likewise, although much more subdued. The rise of the Euro against the US dollar placed an additional burden on economic activities. Not until the fourth Quarter was there a slight uptick in economic activities. The economic upturn in the USA is seen as the driving force for this growth.

China’s economy recovered very quickly from the effects of the SARS epidemic. According to researchers the country’s GDP in 2003 was reduced by only 0.5-1% due to SARS.

Sources: OECD, WIFO

BUSINESS DEVELOPMENT

Increase in Sales
Total Sales of the Andritz Group in 2003 amounted to 1,225.0 MEUR, an increase of 10.4% compared to the previous year (2002: 1,110.1 MEUR). This favorable development was mainly due to the Pulp and Paper Business Area, whose Sales rose by 20.5% to 810.3 MEUR (2002: 672.2 MEUR) as a consequence of increased order bookings and the growth in the services business. While Sales of the Rolling Mills and Strip Processing Lines Business Area were only slightly lower compared to 2002 (173.1 MEUR in 2003 vs. 177.4 MEUR in 2002), the Environment and Process Business Area suffered a drop in Sales to 110.4 MEUR (2002: 122.8 MEUR). The major reasons for this were weak market conditions with very few major sludge dryer orders awarded in 2003 and customer-induced delays in the execution of some of the larger orders. Feed Technology’s Sales decreased by 8.5% to 99.2 MEUR (2002: 108.4 MEUR) as a result of the persistent weakness of the North American feed market and the decline of the US dollar against the Euro, resulting in translation losses.

Order Intake reaches record level
Order Intake of the Andritz Group progressed very satisfactorily. Despite the weakness of the global economy, and a few projects unexpectedly being delayed into 2004, Andritz achieved the highest Order Intake in its history. At 1,394.4 MEUR, it surpassed the record level set last year (2002: 1,299.7 MEUR) by 7.3%. Most notably, the Rolling Mills and Strip Processing Lines Business Area (several major reference orders from Asia) increased its Order Intake substantially compared to 2002. The Environment and Process Business Area’s Order Intake decreased by 25.4% due to persistently weak market conditions that led to postponement of several dryer projects by municipalities.

Sources: OECD, WIFO
The price quality of orders received reflects the high intensity of competition in each of the Business Areas. In addition, large systems orders typically have a lower percentage margin than smaller orders due to a higher amount of pass-through items.

The Order Backlog of the Andritz Group also developed very favorably, reaching 1,053.6 MEUR at the end of 2003. Compared to the previous year (31.12.2002: 903.6 MEUR), this is an increase of 16.6%, giving Andritz a solid baseload for 2004.

**Improvement of Earnings**

Although EBITDA improved from 80.9 MEUR in 2002 to 84.4 MEUR in 2003, it could not fully match the growth of Sales. This was due to a drop in Earnings in the Rolling Mills and Strip Processing Lines Business Area. Capacity underutilization in one of the Business Area’s product segments locations in the first Half of 2003, and losses at Selas were the main reasons for this decline. However, a very favorable development was achieved by the Pulp and Paper Business Area, whose EBITDA substantially improved from 53.5 MEUR in 2002 to 63.9 MEUR in 2003 in line with Sales growth. In addition, the Feed Technology Business Area was able to increase its EBITDA compared to 2002 due to successful restructuring measures.

EBIT (Earnings Before Interest and Taxes) increased by 7.9% to 48.9 MEUR (2002: 45.3 MEUR). Despite a slight decline of the financial result (from 0.5 MEUR in 2002 to 0.4 MEUR in 2003) as a consequence of lower interest levels, Earnings Before Taxes (EBT) increased to 49.3 MEUR in 2003 (2002: 45.7 MEUR). Net Income after deducting Minority Interests was 29.1 MEUR, an increase of 9.8% compared to 2002 (26.5 MEUR).

**Net Worth Position and Capital Structure**

The balance sheet as of 31.12.2003 shows the following major changes in comparison with 31.12.2002:

Net liquidity (cash and cash equivalents plus marketable securities, minus interest-bearing borrowings) decreased to 55.0 MEUR (31.12.2002: 102.6 MEUR). This is – besides the extraordinarily high reference value of last year – mainly due to the purchase of Fiedler, IDEAS, and Acutest. In the Fiedler acquisition, Andritz assumed some bank debt. In addition, work in progress at some of the larger orders exceeded advance payments of customers, having a temporary negative effect on net liquidity; this should level off in the course of 2004.

With an equity ratio of 24.0% as of 31.12.2003 (24.5% as of 31.12.2002), the Andritz Group has a solid and balanced financial structure. The slight decline in comparison with the value on 31.12.2002 is essentially due to exchange rate differences resulting from the increase of the Euro against the US dollar.

**Effects from changes in exchange rates**

Overall, the increase of the average Euro/US dollar exchange rate (+19.8% in 2003 compared to 2002) reduced Sales of the Group by approx. 48 MEUR, Order Intake by approx. 45 MEUR, and EBITA by approx. 1.3 MEUR due to translation.

**RESEARCH AND DEVELOPMENT**

In 2003, the Andritz Group invested a total of 25.5 MEUR for Research and Development. Including expenditures for contract-related development, total R&D expenses for new processes and products amounted to over 3% of Sales during the reporting period.

Research and Development is an important strategic activity of the Group. Andritz considers continuous development of new and improvement of existing products to be essential in order to be successful on a long-term basis in the competitive markets in which it operates. More than 160 people work in the Company’s research centers in the USA, Austria, Finland, and France to find new processes and products with which the Andritz Group’s technological lead will be secured for all
product ranges on a long-term basis. In addition, pilot plants are operated in cooperation with customers.

The Divisions of the Pulp and Paper Business Area continued their Research and Development programs focused on fiber quality improvement, energy optimization, and lowering the investment cost per ton produced.

Newly developed products include the RotaBarker™ debarking system, primarily for frozen logs; a chip sampler/analyzer to control chip quality online; the LMD Filter™ for lime mud filtration; a new generation lime kiln burner with lower NO\textsubscript{x} emissions; the High Efficiency Recovery Boiler (HERB) which considerably increases electrical generation capacity; the RBS-Z20 modularized system for recovery boiler safety management; ModuScreen™ A, a combined coarse and fine screen for virgin and recycled fiber systems; a screw press capable of handling over 1,000 t/d in a single line operating in certain cases ahead of the new large-size Disperger; the new Andritz SelectaFlot™ deinking system which has proved its performance in several plants; a slab press for Flash Drying; and for tissue producers a 3-layer headbox with integrated dilution profiling system.

In the cooking area of chemical pulp production, the main development has been the further streamlining of the digester system with the patented TurboFeed™ system. TurboFeed™ is a revolutionary new chip feeding system which eliminates the need for a high-pressure feeder. It transfers chips from the chipmeter directly to the top of the digester using specially designed pumps. As a result, customers save capital, installation, operating, and maintenance costs. The first installation of TurboFeed™ was at a Weyerhaeuser mill in the Northwest USA. Based upon its success, Weyerhaeuser ordered another TurboFeed™ system for a new fiberline in the Southeast USA. TurboFeed™ has also been included in the large continuous cooking system to be delivered for the Veracel greenfield project in Brazil.

Andritz bleaching and washing technologies on the basis of DD washers offer the lowest chemicals consumption available today. The key elements to achieving this are efficient fractional DD washing during bleaching and selective removal of hexenuronic acid (HexA) prior to bleaching.

By using complex simulation programs, the efficiency of Drum Displacement washers is being improved even further, by gaining a deeper understanding of the flow patterns within the machines. The improved designs reduce the total number of machines in the process sequence, thus lowering the total capital cost of the line.

For the Fiber Preparation Systems area, Andritz has begun work to extend the existing pilot plant in Graz, Austria to be able to provide full-line production trials and testing for recycled fiber applications, including DIP. The pilot plant consolidates the separate testing facilities in Austria and Finland into a single, full-line plant. The plant will also have testing loops for MC equipment (pumps, mixers, etc.) used by customers in kraft pulping applications. Special mention should be made of the excellent cooperation with local and provincial authorities for this project, including arrangements for provincial funding to help defray a portion of the costs associated with the pilot plant. The new pilot plant facility will be operated jointly by Finnish and Austrian organizations within Andritz.

Andritz, together with specialists from the Voith Andritz Tissue LLC joint venture in the USA, has designed an advanced TAD tissue machine concept (Through-Air Drying technology), that is now ready for marketing.

In the Rolling Mills and Strip Processing Lines Business Area, Research and Development work concentrated on the improvement of acid regeneration plants both for spray roasting and fluid bed types. Another project targeted the improvement of strip cleaning technology. Tests with membrane separation of acid and metals in a pilot plant in Krefeld, Germany were continued.
Use of waste heat from power plants for drying of sewage sludge has been a focus for the Environment and Process Business Area. Several concepts were developed which allow to make use of the thermal energy from exhaust gases of gas engines and turbines. The newly developed belt dryer is particularly suited for this application.

Feed Technology’s Research and Development activities focused mainly on adding value through improved flexibility, controllability, and process traceability of the key process technologies within animal feed pelleting and pet and aquatic feed extrusion plants.

OUTLOOK

Leading economic research institutes (OECD, WIFO) expect global economic activities to improve in 2004. Most notably, the USA is predicted to continue its growth trend shown in the second Half of 2003 and to reach a GDP growth of 4.2% in 2004. In Euroland, GDP is likely to grow by only 2.3% as a result of continued weak domestic demand and the increased exchange rate of the Euro versus the US dollar, which should have a dampening effect on European exports. No major changes compared to 2003 are expected for Japan, where economic activities are forecast to remain very subdued. Japan’s GDP is forecast to grow by only 0.2% in 2004.

The relevant markets for Andritz - pulp, paper, and steel - should develop satisfactorily in 2004, with investment activities increasingly improving in the course of the year. According to the leading research institutes, higher project activity is expected for greenfield pulp mills and modernizations of existing installations in the Southern hemisphere.

Market activities in Europe and North America are likely to remain subdued, in part due to the high exchange rate of the Euro against the US dollar. In the area of Rolling Mills and Strip Processing Lines, the brisk investment activity in China and Asia, particularly in the stainless steel area, is likely to continue in 2004. For Environment and Process, market conditions are expected to improve in the course of the coming year.

Integration of newly acquired companies and continued pre-emptive restructuring measures in every Business Area to lower the Group’s fixed cost base are key targets for the Andritz Group in 2004.

Based on these factors, given the high level of Order Backlog as of 31.12.2003, and the somewhat optimistic forecasts for global economic development by researchers, Andritz expects its business results to develop favorably in the coming year. Sales and Net Income in 2004 are forecast to increase compared to 2003. However, if the improvement in the global economy expected by economic researchers does not materialize, Sales and Earnings of the Andritz Group may be adversely affected.

Sources: OECD, WIFO, RISI, Paperloop

Disclaimer
Certain statements contained in this report constitute “forward-looking statements.” These statements, which contain the words “believe”, “intend”, “expect” and words of similar meaning, reflect Management’s beliefs and expectations and are subject to risks and uncertainties that may cause actual results to differ materially. As a result, readers are cautioned not to place undue reliance on such forward-looking statements. The Company disclaims any obligation to publicly announce the result of any revisions to the forward-looking statements made herein, except where it would be required to do so under applicable law.
The Andritz Group acts globally and in different Business Areas and is therefore subject to certain corporate and industry-specific risks. To determine these risks at an early stage, Andritz has established a Group-wide control and steering management committee whose main task is to identify nascent risks early on and to take countermeasures. This system has proved very successful to date, and it will continue to be an essential factor of proactive company management within the Andritz Group. The risks described in the following and the effects that these may have on the business development of the Andritz Group have been taken into account in the Andritz Group’s medium-to-long-term corporate planning, using various scenarios.

The risks that the Andritz Group may incur include but are not limited to the following:

**RISKS RELATED TO THE INDUSTRIES IN WHICH THE GROUP OPERATES**

**Cyclicality**
The industries in which the Andritz Group operates are cyclical. This is especially true of the Pulp and Paper and the Rolling Mills and Strip Processing Lines Business Areas, and, to a lesser extent, of the Environment and Process and Feed Technology Business Areas. The industries that these Business Areas deal with are directly dependent on economic development and the frequent fluctuations in demand for their products that come with it. The price level for these products is partly dependent on the prevailing relationship between supply and demand. Possible price fluctuations are therefore apt to have a direct influence on capital investment decisions of Andritz Group customers, with subsequent influence on Sales and the ability to cover the Group’s fixed costs.

**Customer concentration**
There is a trend toward company mergers in the buyer industries of the Andritz Group, especially in the pulp and paper and the steel industry. This might result in a reduction of the number of customers in the future and in the Group having to face corporations with greater purchasing power. Customer dependence might increase, which could have direct consequences on the Group’s business activities.

**Uncertainty of future contracts**
The Group’s future performance depends on, among other things, whether and when it will receive certain new contracts. It can sometimes be difficult to predict at which point in time an order which the Andritz Group has applied for will actually be awarded. Contract awards are often affected by events outside the control of the Group, such as prices and demand, and general economic conditions. This can cause difficulties in matching workforce with contract needs. Although Andritz has so far been able to successfully implement its strategy of reducing the extent to which it outsources non-essential components in periods of Sales decline in order to minimize the risk of overcapacity, this may change in the future.

**Environmental matters**
The Group’s operations are subject to numerous national and supranational environmental regulations. The Group uses and generates hazardous substances and waste in its manufacturing operations. In addition, many of the Group’s current and former properties are or have been used for industrial purposes, and disposal of waste at disposal sites has been arranged for. It cannot be excluded that the Group may in the future be subject to liabilities relating to the investigation and clean-up of contaminated areas.

**RISKS RELATED TO THE GROUP’S BUSINESS**

**Currencies**
The Group has operations and subsidiaries in a large number of countries outside the Eurozone and a significant portion of its Sales and costs are
COMPANY RISKS

denominated in non-Euro currencies, particularly US dollars, pounds sterling and other currencies. The currencies in these countries may be subject to substantial fluctuations in exchange rates. Although the Group attempts to hedge the net currency exposure against any material currency risks, these fluctuations can result in the recognition of exchange rate losses in the Group’s consolidated income statement. Developments of exchange rates may also have negative effects on Sales, whose value is converted into Euros and on the Earnings of the Group. In addition, shifts in exchange rates may affect Andritz’s position relative to its competitors. Also, the Shareholders’ Equity of the Andritz Group is susceptible of being affected by changes in the exchange rate.

Competition
The Andritz Group works in a very competitive market for each of the Business Areas. Some of the markets in which the Group competes are highly fragmented, with a few large, international manufacturers competing against each other and against a high number of smaller, local companies. This has in some cases adversely impacted Sales margins realized by certain of the Group’s businesses. With persistent and intensive research and development work, the Group has succeeded in updating the technologies offered to customers to the latest state-of-the-art. The Andritz Group invests approx. 3% of its total Sales in Research and Development and has a strategy of continuing to offer its clients the latest technological developments. There is, however, no assurance that the Group can maintain and defend this position in the future.

Acquisition and integration of complementary businesses
One of the Group’s strategic goals is to become a comprehensive supplier of systems and equipment in all of its Business Areas through organic growth and complementary acquisitions. In the course of implementing this strategy, the Group has acquired and integrated a number of companies with worldwide operations since 1990. However, no assurance can be given that the Group will be successful in identifying and acquiring appropriate acquisition candidates in the future, or that suitable candidates will be available, or indeed that sufficient financing can be provided. Furthermore, once a company has been acquired, it needs to be integrated. Although Andritz has a good track record in integrating newly acquired companies, it cannot be excluded for future acquisitions that the planned objectives and synergies cannot be reached wholly, and that this affects the economic development of the Group.

Legal proceedings
In the course of its activities, the Andritz Group is party to numerous legal proceedings before both administrative and judicial courts and bodies and arbitration tribunals. The substantial majority of such proceedings are of a nature considered typical of the Group’s business. Where appropriate, provisions are booked to cover expected outcome of proceedings to which Group companies are a party, to the extent that negative outcomes are likely and reliable estimates can be made. However, even if provisions are made, there is no guarantee that these will always be sufficient.

Andritz Inc., a subsidiary of the Company, was, as of February 1, 2004, one of many defendants in a total of 61 asbestos cases in the USA. In aggregate the cases involve a total of 18,082 plaintiffs. Nearly all of these cases involve claims by multiple plaintiffs against multiple defendants. Andritz Inc. does not believe it should be found liable in connection with any of these claims and plans to vigorously defend each claim. Predecessors of Andritz Inc. supplied equipment that contained gaskets and/or packings purchased from sub-suppliers which may have contained encapsulated asbestos. Andritz Inc. has not settled any asbestos claims or had a judgement of liability rendered against it in connection with an asbestos claim.
RISKS RELATED TO MAJOR ORDERS

Payment risks from customers
The Group’s business involves handling projects with a large contract volume (major projects) in each of the Business Areas. If customers fail to meet their payment obligations for these major projects, this may have negative effects on the net worth and liquidity situation of the Group. The Andritz Group has tried to limit these risks by securing payment guarantees from banks for the majority of projects. Even in projects covered by export credit insurance typically only 85% of the purchase price is secured through the insurance.

Liabilities and performance of projects
In conjunction with the performance of plants supplied by Andritz, the Group is in many cases under obligation to make performance guarantees and to meet certain deadlines. If the performances stated are not achieved or the deadlines are not met, the Group may have to perform remedial work at its expense or pay damages. If a guaranteed performance level or deadline is missed by a wide margin, the customer may have the right to terminate the agreement and return the delivered system to the Group for a full refund and/or recover damages. Such a case could adversely affect the Group’s financial development. The Group has put risk management procedures in place to reduce, inter alia, its contractual and financial risk exposure on projects.

Cost overruns
The Group’s projects are usually based on long-term contracts, the substantial majority of which are fixed price contracts awarded on a competitive bidding basis. The Sales and operating margins realized in a fixed price contract may vary from original estimates as a result of changes in costs and productivity over the term of the contract, especially on projects that include plant-wide engineering and/or construction. In addition, since certain parts of the manufacture of the Group’s supplies are outsourced, the Group may be compelled to quote to the customer without knowing exactly how much the purchased parts will cost. While estimates are made using empiric data and quotes from potential suppliers, these may not be accurate. The Group has experienced losses on certain past and pending projects and project difficulties and losses may occur in the future in a way that would adversely affect the Group’s financial condition.

RISKS RELATED TO THE CAPITAL MARKETS

Dependence on the development of international financial markets
Apart from company-related occurrences, development of the share price is to a considerable extent dependent on the price fluctuations on major international financial markets. Possible price variations and high volatility on the major stock markets might adversely affect the price of Andritz shares.

Recommendations by research analysts
As a publicly listed company, Andritz is regularly covered by financial analysts. Analysts’ selling or buying recommendations may lead to considerable price fluctuations for Andritz shares. The Andritz Group endeavors to obviate unfounded price fluctuations by pursuing its open and transparent information policy.

Active trading market for Andritz shares
The Secondary Public Offering of Andritz shares in June 2003 led to an increase of the public free float from 16% to about 62% of the Company’s total outstanding shares. As a result of the Offering, active trading in Andritz shares on the Vienna Stock Exchange has increased. However, there is no assurance that active trading will be maintained in the future. If active trading is not maintained, the liquidity and the market price would be adversely affected, and investors might be unable to sell their shares at an acceptable price. It could also result in removal of Andritz’s membership from the ATX.
This new Andritz bleached fiberline was designed and constructed for an integrated pulp/paper mill in the Southeast USA. The start-up, which occurred in September 2003, was the most successful in history – requiring only nine days from start to sustainable full production of saleable pulp.
BUSINESS AREA MANAGERS

Markku Hänninen (Pulp Mill Technologies)
Bernhard Rebernik (Paper Mill Technologies)
IN BRIEF

I Increase in Order Intake
I Improvement of Sales and Earnings
I Receipt of major reference orders

PROFILE

The Pulp and Paper Business Area is a global leader in the supply of systems, equipment, and services for the production of fiber and pulp for all paper/board/tissue grades (chemical pulp, mechanical pulp, and recycled fibers), for chemical recovery in pulp mills, and for sludge dewatering/handling. The Business Area also supplies stock preparation and machine approach systems for virgin or recycled fiber, tissue production systems, machine ventilation/drying equipment, and sheet drying/baling systems for market pulp.

In the services business, the Business Area produces engineered and technologically advanced wear products (refiner plates, screen baskets and rotors, chipper knives, etc.) and offers a full array of technical services.

The successful acquisition of complementary product areas over the past few years enables the Pulp and Paper Business Area to supply complete processing lines from log handling to the production, drying, sheeting, and baling of pulp. The most recent acquisitions extend the Business Area's expertise in automation, the production of engineered wear products, and equipment condition monitoring.

By acquiring IDEAS Simulation (global market leader in the field of Dynamic Process Simulation for the pulp and paper industry), Fiedler (custom-tailored screen baskets, rotors, pressure screens, and cleaners) and Acutest (condition monitoring technology for preventive maintenance and safety), Andritz has significantly supplemented its product portfolio and broadened its services range for the pulp and paper industry.

The Pulp and Paper Business Area provides basic and detailed engineering, procurement, equipment erection, construction supervision, commissioning, and maintenance services as per the requirements of customers. Deliveries fall into one of three basic categories: 1. equipment only, 2. equipment with mechanical erection services, and 3. complete Engineer-Procure-Construct (EPC) fixed contracts.

The Pulp Mill Technologies unit within the Business Area was newly organized in 2003, splitting the former Kraft Mill Systems Division into three focused Divisions: Fiberline, Recovery, and Chemical Systems.

In each major market, the Pulp and Paper Business Area has a number of service and sales locations. In the emerging regions of Asia and South America, Andritz has improved its strong foothold considerably with excellent reference deliveries.

KEY FIGURES FOR THE PULP AND PAPER BUSINESS AREA (IAS)

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<td>672.2</td>
<td>883.0</td>
<td>718.6</td>
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<td>Order Intake</td>
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<td>843.3</td>
<td>642.8</td>
<td>886.6</td>
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<td>431.5</td>
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<td>7.9%</td>
<td>6.2%</td>
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</tr>
<tr>
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<td>53.9</td>
<td>30.8</td>
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<tr>
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<td>5.8%</td>
<td>6.1%</td>
<td>4.3%</td>
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</tr>
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<td>2,634</td>
<td>2,626</td>
<td>2,656</td>
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</tbody>
</table>
**MARKET DEVELOPMENT**

The international pulp market showed a quite mixed development during 2003. In the first Half, slightly increasing demand and shortage of supply led to a significant price increase for NBSK (Northern Bleached Softwood Kraft pulp) from approx. 440 US dollars per ton in January 2003 to approx. 560 US dollars per ton at the end of June 2003. However, as a result of slowing demand, the pulp market weakened during the second Half of 2003, causing the price for NBSK to drop slightly until the end of 2003. Norscan inventories, which declined slightly during the first Quarter of 2003, increased steadily during the remaining Quarters of 2003 and reached a level of over 1.8 million tons at the end of 2003.

The market for short fiber pulp (birch and eucalyptus) developed more favorably. Price increases were especially pronounced during the first six months of 2003, with the price for eucalyptus pulp exceeding those for NBSK. During the second Half of 2003, prices weakened somewhat more than NBSK prices.

Project activity in 2003 was reasonable, the bulk of projects concerned modernizations and rebuilds of existing plants. The most active regions were South America, Europe, and Asia.

Sources: RISI, Paperloop

**BUSINESS DEVELOPMENT**

Sales of the Pulp and Paper Business Area developed very favorably in 2003. As a result of good Order Intake during 2002 and 2003, and due to a recovery of the service business in the course of 2003 (especially in North America), Sales increased by 20.5% to 810.3 MEUR (2002: 672.2 MEUR). Both Pulp Mill Technologies (from 382.8 MEUR in 2002 to 412.2 MEUR in 2003) as well as Paper Mill Technologies (from 289.4 MEUR in 2002 to 398.1 MEUR in 2003) were able to improve their Sales substantially in comparison to 2002.

Due to the increase in Sales and successful implementation of cost saving measures, EBITDA of the Business Area increased by 19.4% over the previous year, to 63.9 MEUR (2002: 53.5 MEUR). However, profitability expressed as EBITDA margin was reduced slightly to 7.9% (2002: 8.0%). The main reason for this was the processing of some larger systems orders which typically have lower margins.

Order Intake reached 857.3 MEUR in 2003, a slight increase of 1.7% compared to the previous year (2002: 843.3 MEUR). The upswing is mainly due to the receipt of some large reference orders, e.g. the order from Veracel Celulose S.A., Brazil, for a complete fiberline (from the digester to the finished pulp bales, including white liquor plant) for a greenfield mill. Large orders were also booked for chemical recovery systems.

Pulp Mill Technologies’ Order Intake reached 390.3 MEUR in 2003, a decrease of 22.5% compared to the previous year (2002: 503.7 MEUR). This decline is mainly due to the exceptionally high Order Intake for recovery boilers in the previous year.

Order Intake for Paper Mill Technologies developed very satisfactorily. Orders totaled 467.0 MEUR in 2003, an increase of 37.5% compared to last year (2002: 339.6 MEUR). Every Division of Paper Mill Technologies was able to increase its Order Intake compared to last year. It is especially worth mentioning that the Mechanical Pulping Systems Division – which includes plants for pulp dewatering and drying – more than doubled its Order Intake compared to 2002.
MAJOR ORDERS

- Andritz was selected to supply the complete fiberline - from the digester to finished bales of market pulp - as well as the white liquor plant for the Veracel Celulose S.A., Brazil, greenfield kraft pulp mill on an EPC basis. The fiberline delivery confirms the breakthrough of the new Andritz cooking technology incorporating the TurboFeed™ system. This is a further improvement and simplification of the continuous digester that was developed and launched during the past three to four years.

- For a pulp mill to be built on Hainan Island, China, Andritz will deliver a pulp drying plant. Design capacity of the plant is 3,000 t/d and the width of the machine is 9.3 m at the cutter. Andritz also booked the order for a complete wood and chip processing installation.

  When completed both plants will be the largest in the world.

- Neusiedler (SCP in Slovakia) ordered a new recovery boiler for its Ruzomberok mill in Slovakia. The company also ordered an evaporation plant and systems for treatment of non-condensable gases (NCG).

- The Pulp Mill Services Division booked the largest OPE® (Overall Production Efficiency) service contract for the recovery and energy block at Portucel’s Setubal mill in Portugal. The order was a continuation to the fiberline OPE® service order for the same customer; OPE® now covers the whole mill.

- Andritz received an order for modernization to increase production at a Mondi paper mill in South Africa.

- In addition to their 550 t/d RTS™ TMP line, Jiangxi Chenming of China ordered a third HC refining stage and a second bleaching stage in order to also produce LWC paper grades. Puy-ang in Henan province, China, ordered a 330 t/d P-RC™ APMP system for the production of LWC and fine paper grades.

- Andritz was awarded orders for three deinking lines in a row in China by Nanping Paper (300 t/d), Heilongjiang Black Dragon (500 t/d) and Jiangxi Chenming Paper (400 t/d). This underlines the strong position of Andritz’s deinking technology in China.

- FS-Karton, a member of the Mayr-Melnhof Group, ordered a 200 t/d deinking line for their board production facility in Neuss, Germany. The order was placed in the second Quarter and the line started up successfully in December, in record time.

- Andritz Panelboard systems maintained their high market share, receiving more than 25 orders for MDF refiner systems worldwide in 2003. Of particular note is the order from O.o.o. Kronos-tar in Russia for the world’s largest MDF refining system (1,100 t/d capacity).

- Andritz received an engineering order for the supply of another CrescentFormer tissue machine to Swedish Tissue, Kisa, Sweden. The new Andritz PrimeLine™ machine includes the proven TissueFlex™ shoe press and is especially designed for supersoft tissue products.
Welding of a FibreFlow® Drum internal component at the Andritz Savonlinna Works, Finland.
PROFILE

The Wood Processing Division is one of the world’s leading suppliers of systems, equipment, and processes for all steps required in a woodyard – from receiving logs to their subsequent preparation into wood chips – for the production of chemical and mechanical pulps.

The Wood Processing Division is based in Hollola, Finland and has sites in Örnsköldsvik, Sweden; Alpharetta, GA, USA; Montreal and Edmonton, both in Canada; and São Paulo, Brazil.

BUSINESS DEVELOPMENT

The Wood Processing Division succeeded in keeping its leading position in the major markets of Northern and Central Europe, South America, China, Canada, and the USA.

On-time completion was achieved for the wood and chip processing installation at Celulosa Arauco y Constitución S.A. in Valdivia, Chile, and successful start-ups for the woodyard and groundwood modernization project at Stora Enso Baienfurt GmbH & Co., Germany, and for Weyerhaeuser’s New Bern, NC tree-length debarking system.

MAJOR ORDERS

- The Division booked an order for a complete wood and chip processing installation from China.
- The Division was selected by Weyerhaeuser Co., USA to supply a wood handling system and by Interstate Paper Co., USA to supply a stacker-reclaimer to a pulp mill in Georgia.
- The Division’s wood processing expertise was confirmed by several orders for TMP and MDF plants in China.

OTHER IMPORTANT ORDERS

- DareWood, China: Woodroom equipment for MDF
- Weyerhaeuser Ltd., Canada: Crane modernization
- Grant Forest, Canada: RotaBarker™
- Sappi, USA: HHQ-Chipper™ line
- Mondi Kraft Ltd., South Africa: Chip screening modifications
- Korsnäs AB, Sweden: Drum-Chipper line with HHQ-Chipper™

RESEARCH AND DEVELOPMENT

The newly developed RotaBarker™ debarking system, primarily for frozen logs, has proved to be an excellent winter debarking product. A new order for a RotaBarker™ was received and the system will be started in Canada in spring 2004.

A new chip sampler/analyzer has progressed from prototype development to performance test runs. Another service-related product development is Reliability Centered Maintenance (RCM) for chippers, where the condition monitoring expertise of Acutest Oy is being utilized to find new ways to optimize maintenance for chippers.
This complete wood processing system with two debarking lines for eucalyptus and pine was delivered to Celulosa Arauco y Constitución S.A., Chile. Horizontally-fed HHQ-Chippers™ produce top-quality chips for the pulping process.
PROFILE

The Fiberline Division is one of the world’s leading suppliers of systems, equipment, and processes for the production of chemical pulp. Products include continuous cooking systems, washers, screens, bleaching systems, and related equipment.

The Division is headquartered in Kotka and has operations in Savonlinna, Finland; Alpharetta, GA and Glens Falls, NY, both in the USA; Tokyo, Japan; Curitiba, Brazil; and Stockholm, Sweden.

BUSINESS DEVELOPMENT

During the third Quarter, two major chemical fiberlines were started up in the USA. The first start-up was at Weyerhaeuser’s mill in Kingsport, Tennessee. The project included the delivery of an Andritz continuous digester, incorporating the new TurboFeed™ system and Lo-Solids® Cooking process using soda (non-sulfur) chemistry. The chemical fiberline also included an Andritz-supplied pulp screen room, a multi-stage oxygen delignification system, and Drum Displacement (DD) washers for both brownstock and bleaching plants.

The second major start-up was a total Andritz fiberline supplied to a large integrated mill in the Southeast USA. This delivery included the continuous digester system, brownstock washing, multi-stage oxygen delignification, pulp knotting and screening, and a four-stage bleach plant. DD washers were used for brownstock and bleach plant washing.

Both of these projects were replacements of older batch cooking and bleaching systems and were driven by a combination of environmental and economic factors.

Due to the combined efforts of the customer and Andritz project personnel, and the robust fiberline technology applied, these projects started up ahead of schedule and exceeded their demanding targets in terms of pulp production during the early months of operation.

Most of the sales activity in Europe was focused on projects for upgrading existing lines to increase the capacity and/or operational economy. The activity level in the Russian market has increased. The bleach plant modernization at Stora Enso’s Varkaus mill in Finland started up very well.

The markets in Asia have become active again. Several large pulp mill projects are in the evaluation phase, mainly in China and Indonesia. In Japan, there are numerous upgrade projects to convert existing fiberlines to produce ECF pulp. The Andritz bleach plant modernization project for Nippon Paper’s Yatsushiro mill, Japan, was successfully started. In China, several screen rooms for wheat straw pulp mills were started up.

MAJOR ORDERS

• The Division booked an order for a complete fiberline for the greenfield Veracel mill in Brazil. This order is significant because it is the largest single-line fiberline Andritz has sold and it includes the first TurboFeed™ chip feeding system in South America. The order will also further strengthen the position of Andritz’s DD washing technology both in brownstock and bleaching applications.

• From Russia, the Division received an important order from Segezha Pulp and Paper Mill. It includes a digester retrofit and new screening and washing systems.
This continuous cooking system, featuring the latest Downflow Lo-Solids® Cooking technology, is part of a complete fiberline supplied by Andritz to a customer in the Southeast USA. Design capacity of the digester is 1,500 t/d of bleached, high-quality pulp.
To South Africa, the Division will deliver a major washing system upgrade for Sappi Kraft’s Tugela mill. Portucel awarded the Division an order for fiberline modernization for its Tejo mill in V.V. Rodao, Portugal.

OTHER IMPORTANT ORDERS

- UPM-Kymmene Wisaforest, Finland: Sawdust cooking, washing
- Riau Andalan Pulp and Paper, Indonesia: Pin chip cooking, screening, washing
- Stora Enso Norrsundet, Sweden: Bleaching upgrade
- Stora Enso Varkaus, Finland: Bleaching upgrade
- Lwarcel, Brazil: Lo-level® chip delivery system, Lo-Solids® cooking and digester retrofit

RESEARCH AND DEVELOPMENT

The on-going technology development programs in the Fiberline Division have as a primary objective to lower the investment cost per ton of produced pulp through process simplification, optimization, standardization, and modularization.

To this end, the Division developed a new combined coarse and fine screen to further reduce screen room costs. The possibilities of MC technology and higher pulp consistency are applied in simplifying the fiberline concept.

Andritz’s research center in Glens Falls, NY, USA played a key role in projects to optimize the performance of the pulping and bleaching processes, not only due to investment projects, but also increasingly due to direct orders from customers.

The reduction of chemical consumption and wood losses through optimizing fiber properties is being addressed by studies of chemical, dissolved solids, and temperature profiling during the delignification and bleaching processes. Particular emphasis is being placed on fast-growing hardwood species such as eucalyptus.

In the pulp bleaching area, Andritz developed systems which will significantly reduce the effluent volume from the plant by efficient re-use of segregated effluents. Chemical consumption has been decreased to a record low level. The key elements for achieving this are efficient fractional DD washing during bleaching and selective removal of hexenuronic acid (HexA) prior to bleaching.

A group of scientists from Finnish and Swedish research institutions was awarded the Marcus Wallenberg Prize in October 2003 for its breakthrough discoveries around HexA and for the practical removal of it. Andritz has participated and cooperated with the research group since the beginning of the project and has the commercial rights to deliver this technology.

By using complex simulation programs, the efficiency of Drum Displacement (DD) washers is being improved even further, by gaining a deeper understanding of the flow patterns within the machines. In brownstock washing and oxygen delignification systems, Andritz applies the improved designs of the multi-stage DD washers in order to reduce the total number of machines in the process sequence, thus lowering the total capital cost of the line and making the DD washer not only the most effective but also the most economical system on the market.

The Division is configuring its modular process sub-systems to allow the newest chip cooking systems to meet the unique requirements of each customer. These solutions can be used for modernizations of the installed base as well as new lines.
Assembly of the feed sector plate of a washer at the Andritz Savonlinna Works, Finland.
PROFILE

The Chemical Systems Division offers solutions for pulp mill on-site chemicals preparation. The main products of the Division are recausticizing plants, lime kilns, and white liquor oxidation systems.

The Division is headquartered in Kotka, Finland. It has also locations in Savonlinna, Finland; Alpharetta, GA, USA; Curitiba, Brazil; Tokyo, Japan; Örnsköldsvik, Sweden; and Jakarta, Indonesia.

BUSINESS DEVELOPMENT

During 2003, the major business activities of the Chemical Systems Division were in the Southern hemisphere, mainly EPC deliveries to South America. China and Southeast Asia also showed signs of new market potential. Furthermore, modernizations and retrofits of equipment and processes offered constant business activities in market areas worldwide.

Some significant projects were in progress in 2003. Among them were Arauco, Valdivia in Chile, Stendal in Germany and Wisafor in Finland. These large delivery projects assured the Division’s position as a global market leader and a preferred partner for the pulp and paper industry.

Other start-ups of note during the year include lime kiln upgrades at Ripasa and Cenibra mills in Brazil. Also, the lime kiln and recausticizing project for VCP Jacarei is of particular importance. Andritz was awarded the “Olimpiadas dos Provedores do P-2000” for having the lowest accident rate and least environmental impact of all suppliers and contractors during the VCP modernization project.

MAJOR ORDERS

- The Division booked an order from Oji Paper for the first green liquor filtration system in Japan using X-Filter™ technology developed by Andritz.
- The Division booked an order for a complete EPC white liquor plant (recausticizing and lime kiln) for the greenfield Veracel mill in Brazil. This order is important because of its magnitude, and it also represents the latest recausticizing technology.
- Andritz was chosen to deliver a lime kiln upgrade to the Suzano Bahia Sul mill in Brazil.

OTHER IMPORTANT ORDERS

- Metsä-Botnia, Kemi, Finland: StiroX, white liquor oxidation
- CENIBRA, Brazil: Lime kiln upgrade

RESEARCH AND DEVELOPMENT

Lime mud filtration is moving towards disc filter technology. The first such filter, the LMD Filter™ developed by Andritz, has passed pilot testing and mill tests successfully. The filter is compact, reduces emissions from the lime kiln and is a completely closed system so there is no dusting.

A new lime kiln burner has been developed to meet the demanding environmental requirements of modern mills. Pilot testing has been completed. The new burner has lower NOx emissions and offers advanced flame control over the entire capacity range of the kiln.
This complete white liquor plant, including an LMD lime kiln and a recastizing plant, was supplied to Shandong Rizhao SSYMB Pulp & Paper Co., Ltd, China. The delivery includes the first CD-Filter for white liquor filtration to China.
PROFILE

The Recovery Division is one of the world’s market leaders in providing systems, equipment, and processes used in chemical recovery plants in pulp mills.

The products of the Division include chemical recovery boilers, evaporation plants, effluent evaporators, NCG systems, and TMP heat recovery systems.

The Recovery Division’s major activities are centered in Helsinki and Varkaus, Finland, with significant operations in Alpharetta, GA, USA; Stockholm, Sweden; and Curitiba, Brazil.

BUSINESS DEVELOPMENT

Work is progressing on the chemical recovery island ordered by UPM-Kymmene’s Wisaforest pulp mill in Pietarsaari, Finland. This delivery includes the world’s largest evaporation plant and chemical recovery boiler. When the chemical recovery plant is completed, it will produce approx. 600 MW of thermal power and 140 MW of electric power from renewable natural resources. Start-up is scheduled for April 2004.

Andritz is also delivering a recovery island to Zellstoff Stendal GmbH in Arneburg, Germany. This recovery island is capable of meeting the tightest environmental regulations using up-to-date technologies developed by Andritz. Start-up is scheduled for the second Quarter of 2004.

MAJOR ORDERS

- In Europe, Neusiedler (SCP) ordered a new recovery boiler for its Ruzomberok mill in Slovakia. A couple of months later, the company also ordered an evaporation plant upgrade and NCG system for the mill, and, in November, Neusiedler completed the recovery package with an MVR pre-evaporator.
- Portucel Industrial SA ordered major recovery boiler and evaporator retrofits for its Tejo mill in V.V. Rodao, Portugal.
- Mondi Ltd. ordered a new black liquor evaporation plant for its Richards Bay mill in South Africa as well as a strong and weak malodorous gas handling system.

RESEARCH AND DEVELOPMENT

Much of the R&D effort in the Recovery Division has been in the area of reducing air emissions. The main targets have been NOx and greenhouse gases. As many countries have ratified the Kyoto Protocol, customers are interested in the latest environmentally friendly technologies.

For the recovery island, the main developments have been around the High Efficiency Recovery Boiler (HERB). The goal is a considerable increase in electrical generation capacity. The first such boiler under construction is for the Wisaforest project in Pietarsaari, Finland. Higher steam parameters needed for HERB may require chlorine and potassium control in the mill. The first chlorine removal system based on recovery boiler fly ash recrystallization (ARC) is under construction for Soporcel in Portugal.
Andritz supplied a 2,100 tons of dry solids per day turn-key recovery boiler to Södra Cell’s pulp mill in Värö, Sweden.
Another essential element for lowering emissions is the development of the Vertical Air™ system with improved furnace processes. With this technology, nitrogen conversion into NOx is minimized. Several plants based on this technology are already in operation.

Focusing on safety, the Division developed a modularized system for recovery boiler safety management, the RBS-Z20. The system provides a safety concept approved by European authorities. The system was first piloted in Värö, Sweden, and is now under installation in Stendal, Germany. Later, it will be delivered to Soporcel, Portugal and Ruzomberok, Slovakia.

The RBS-Z20 system ensures that the boiler is engineered strictly according to requirements assessed in safety analyses, built according to validated plans, and thoroughly tested while witnessed by authorities. The concept includes a panel-type visualization system for local operators and a data link to mill automation for remote monitoring.

For design and training purposes, the Division created a Dynamic Recovery Boiler Model. When integrated into the IDEAS simulation platform, it is used for simulation of operating conditions such as start-ups and shutdowns, production and liquor quality changes, as well as process disturbances and malfunctions. A virtual plant is easily created for operator training well before construction is completed on the actual boiler. Delivery times can be accelerated, since the mill’s automation system can be fully staged with the dynamic simulator to reduce the field-testing and start-up time.
PROFILE

The Pulp Mill Services Division encompasses the service activities for the Wood Processing, Fiberline, Chemical Systems, and Recovery Divisions. Primary emphasis is on production efficiency and availability services to woodyards and kraft pulp mills supplied either by Andritz or other equipment manufacturers.

The Division helps customers get maximum production efficiency from their machines and processes.

Today, there is more emphasis on Overall Production Efficiency (OPE®) of a mill’s machinery throughout its lifetime. The Division supplies full-service contracts for OPE® for continuous improvement and optimization of mill operations - from single machines to process lines to entire pulp mills. In addition, the Division provides traditional services, such as field services, rebuilds and upgrades of equipment, and replacement parts or engineered wear products.

The Division is headquartered in Savonlinna, Finland. It operates through service centers worldwide shared with the Paper Mill Services Division, providing fast and responsive attention to local customers.

Production facilities for rebuilds are located in Finland, Austria, and the USA, but the Division also offers services through its partner workshops in many other countries.

BUSINESS DEVELOPMENT

The increase in pulp prices enabled mills to direct more of their operating budgets to maintenance and equipment optimization, favorably affecting the service business. The positive development took place especially in the second Half of the year in Northern Europe, Southeast Asia, and North America.

The Division continued its growth through acquisitions and developing its sales/service network to meet customers’ needs. Service resources were added in South America and Asia. Demand for OPE® service contracts continued in Europe, South America, and Asia.

In North America, HQ-Plus™ knife systems for chippers were introduced.

Andritz acquired Acutest Oy, a Finnish company using acoustic condition monitoring technology to detect cracks, leaks, friction, and load in process equipment. This strengthens the Division’s offerings in predictive maintenance and on-line diagnostics.

MAJOR ORDERS

The Division booked the largest OPE® service contract ever for the recovery and energy block at Portucel’s Setubal mill in Portugal. The order was the second for the same customer, and OPE® now covers the whole mill.
The Division booked several significant orders for recovery boiler upgrades using the Vertical Air™ system, such as orders from IP Kwidzyn in Poland, UPM-Kymmene Kaukas in Finland, and Södra Cell Mörrum in Sweden. The Vertical Air™ upgrade provides remarkable improvements to operational efficiency and emissions of recovery boilers.

The Division booked several orders for rebuilds of feeders for continuous digesters around the world, such as from Indah Kiat, Perawang, Indonesia, SCA Packaging Munksund AB, Sweden, and Neusiedler Syktyvkar, Russia.

The Division booked its largest HQ-Plus™ chipper knife system order with Bowater in Calhoun, TN, USA.

For filter washers, new wash water piping solutions have improved the washing performance of the equipment. For Drum Displacement (DD) washers, innovations have improved the operating reliability and lengthened the period between necessary maintenance actions.

For chippers, Andritz has developed a new chip sampler/analyzer, which helps control chip quality on-line and, accordingly, the whole chipping process. For debarking drums, Andritz has developed a new DSD (Differential Speed Detection) system for preventing damage to the support ring and wheel.

RESEARCH AND DEVELOPMENT

In the Pulp Mill Services Division, major R&D programs centered around improving the operational reliability of Andritz equipment throughout its entire life cycle. The programs were conducted in cooperation with customers and Andritz divisions responsible for capital equipment. New measurement points and methods help operators and maintenance people determine the condition of their operating equipment, and plan more accurately the maintenance actions.

On-line diagnostics was further developed. By bringing the products of Acutest to the product family, Andritz now provides a wide variety of different measurement and analyzing methods to control the operations of equipment and processes. Acutest’s extensive development program includes projects for a new generation of sensors and data acquisition. Additionally, new industrial applications have been developed.
New and innovative maintenance technologies, such as acoustic condition monitoring, ensure the best overall production efficiency for installed equipment. Here, an Andritz technician is shown with a high-pressure feeder equipped with an on-line monitoring and diagnostic system delivered by Andritz to Stora Enso’s Kotka mill in Finland.
PROFILE

The Mechanical Pulping Systems Division is a leading global supplier of complete systems for producing high-quality mechanical pulps for paper and board makers and high-quality fibers for Medium Density Fiberboard (MDF) and Particleboard (PB) producers, as well as complete sheet drying lines for pulp.

The mechanical pulping technology is based on the proven RTS™ TMP technology and the P-RC™ APMP process. Equipment for pulp dewatering, washing, drying, and high-consistency bleaching makes the Division a comprehensive supplier of mechanical pulping processes.

Complete dewatering and drying systems (the latter now included in Andritz’s scope of supply with the acquisition of ABB Drying in December 2002), together with sheet cutters and bale finishing lines, are offered for production of market pulp with capacities of over 3,500 t/d in a single line.

The Division operates mainly through its headquarters in Vienna and Graz, Austria; as well as its affiliates in Montreal, Quebec, Canada; Muncy, PA, USA; Alpharetta, GA, USA; and Växjö, Sweden.

The Division’s research laboratory in Spring-field, OH, USA is a completely equipped and independently certified process research facility. In addition, dewatering and sheet drying pilot plant work is performed in Graz.

BUSINESS DEVELOPMENT

Final acceptance of the sheet drying plant for Aracruz Celulose S.A., Brazil was received in September after a particularly smooth and fast start-up. This new line set world records for single-line pulp dewatering/drying (approximately 2,650 t/d).

Of special note is the successful start-up of the Front-End Package for MDF supplied to Jiangsu Dare Wood, China. The package included the largest Pressurized Refining System ever installed in China with a capacity 750 t/d.

The P-RC™ APMP process for chemi-mechanical pulping was very successfully taken into operation in Canada (St. Raymond) and China (Yueyang and Chenming Shandong).

The largest screw press in the world (1.9 m diameter) was successfully started up at UPM-Kymmene’s Shotton mill in Great Britain.

MAJOR ORDERS

- Andritz, in a consortium with Voith Paper and Moura Schwark, will deliver a single pulp dewatering and drying plant including Andritz bale finishing lines to Veracel Celulose in Brazil, producing 3,000 t/d. This will be another important EPC milestone after successful completion of the Aracruz Fiberline C project.

- For a pulp mill on Hainan Island, China, the Division will build a single pulp drying line, which is planned to start up in the second Half of 2004.

Both plants have a capacity of 3,000 t/d each and a machine width of 9.3 m. When completed, both plants will be the largest in the world.
The world’s first P-RC™ APMP installation was successfully started up at the end of October 2003 at Yueyang Paper Mill in China. The line produces 300 t/d of mechanical pulp for China’s most modern LWC paper machine, using two Andritz refiners, type S3068. Italian poplar is utilized as the furnish.
The leading position of Andritz in Mechanical Pulping High-Consistency Bleaching was confirmed by orders from MD Plattling, Germany; SCA, Ortviken, Sweden; Stora Enso Summa, Finland; and Stora Enso Veitsiluoto, Finland.

Puyang in Henan province, China ordered a 330 t/d P-RC™ APMP system for the production of LWC and fine paper grades.

Andritz Panelboard systems continued in their market leadership with more than 25 orders for pressurized refining systems received by the Division worldwide in 2003. Of particular note is the order from O.o.o. Kronostar in Russia for the world’s largest MDF refining system (1,100 t/d capacity).

**OTHER IMPORTANT ORDERS IN MECHANICAL PULPING**

- Jiangxi Chenming, China:
  HC refining stage and a second bleaching stage

- Holmen Paper, Vargön, Sweden:
  High-consistency bleaching system

- Perlen Papier AG, Switzerland:
  RTS upgrade to 350 t/d

- Holmen Hallstavik, Sweden:
  Bleaching expansion

**OTHER IMPORTANT ORDERS IN SHEET DRYING**

- Stora Enso North America, Wisconsin Rapids, WI, USA:
  The largest single-line wet lap plant in the world (4.2 m width) including the baling line and Balematic control system.

- Mondi Kraft, Richards Bay, South Africa:
  Rebuild of a sheet drying line to provide a capacity increase to 1,600 t/d, including two new baling lines with new Andritz “Autograding-Autotracking” technology.
RESEARCH AND DEVELOPMENT

The Mechanical Pulping Systems Division focuses its development efforts on process-oriented solutions to enable customers to enter broader markets with mechanical pulps, minimize operating costs, and reduce environmental impact.

Joint development with customers has resulted in significant full-scale mill implementation of processes originated from the basic, patented building blocks of RTS™ and P-RC™ mechanical pulping processes.

RTS™ is a process to reduce refining energy consumption, and to improve fiber qualities due to precisely controlled shorter retention times for chips in the pretreatment stage, elevated temperature, and speed.

P-RC™ APMP is a chemo mechanical or a chemithermo mechanical pulping process which, due to the flexible application of alkaline peroxide solutions for impregnation, allows to produce tailor made pulps at low refining energy consumption. The sulphur-free process technology is especially suited for all kinds of hardwood pulps and covers a broad product range from LWC, P&W to board and tissue grades. The virtually sulphur-free effluents are easy to treat in conventional biological effluent treatment plants.

These processes are being applied to improve fiber properties, reduce energy and chemical consumption, and obtain maximum yield from raw materials. Applications of these technologies are occurring on a retrofit basis and as greenfield installations.

In the field of process control, the Division successfully introduced the Refiner Commander™ and the Refiner Protection System. The Refiner Commander™ is a system with a powerful new hydraulic control concept for complete refiner process control. It was successfully installed in the Yueyang and Chenming Shandong projects.

Another major driver to achieve productivity improvements is the need for increased production capacity from proven technologies. This led to the development of a new screw press capable of handling over 1,000 t/d in a single line. The first press of this size started up in late 2003.

Based on the new pulp dewatering line for Aracruz Celulose in Brazil R&D efforts are focused on further increasing single-line capacities to beyond 3,500 t/d.

Extensive trials have been made in the Division’s pilot plant with different hardwood species to further optimize the Twin Wire Former concept in order to achieve very high speed maintaining high dryness out of the press section.

The main focus in the area of airborne sheet dryers, besides high capacity, has been improvement of uptime by introducing new devices for faster cleaning of the dryer. The high-speed cutter concept has been further developed for large machines.
PROFILE

The Fiber Preparation Systems Division is a global supplier of systems, equipment, and services for the provision of fiber for all papermaking processes such as recycled fiber processing, fiber stock preparation, paper machine approach systems, broke handling, sludge and reject handling, and internal water loop handling in the paper mill.

The Division has its headquarters in Kotka, Finland and Graz, Austria with significant operations in Glens Falls, NY, USA.

BUSINESS DEVELOPMENT

The first turnkey deinking lines since Andritz introduced its new fiber preparation technologies in 2002, started up successfully and on time for Vipap Videm Krško Proizvodnja Papirja in Celuloze d.d., in Slovenia and for Mayr-Melnhof’s FS Karton in Germany. Andritz supplied many new products for the line including SelectaFlot™ flotation deinking technology and the CompaDis™ dispersion system.

In November, UPM-Kymmene Ltd, Shotton Paper, in the United Kingdom successfully started up the largest single-line deinking installation in the world. The Andritz scope includes the FibreFlow® concept (the second ordered for the mill) and the world’s largest pulp screw press in combination with the Andritz CompaDis™ dispersion system.

MAJOR ORDERS

- Andritz was awarded orders for three deinking lines in a row in China by Nanping Paper (300 t/d), Heilongjiang Black Dragon (500 t/d) and Jiangxi Chenming Paper (400 t/d). This underlines the strong position of Andritz’s deinking technology in China.

- FS-Karton, a member of the Mayr-Melnhof Group, ordered a new 200 t/d deinking line for the top-layer of their existing board production in Neuss, Germany. The main reasons cited for placing the order with Andritz were higher yield and lower energy demand compared to other systems.

- Yanzhou Tian Yuan Paper Industry Co. Ltd (Sun Paper), Shandong Province, China, ordered a complete stock preparation system for their new copy paper machine. This is the first complete stock preparation delivery since Andritz introduced its new fiber preparation technologies in 2002.

OTHER IMPORTANT ORDERS

- Hebei Pan Asia Long-Teng Paper, China: Components for 1,200 t/d DIP line for newsprint

- Stora Enso, Hylte, Sweden: FibreFlow® concept

- UPM-Kymmene (Changshu) Paper Industry, China: Components for stock preparation system, broke handling, and paper machine approach system

RESEARCH AND DEVELOPMENT

The target for all product development is to increase pulp quality, improve operating efficiency, and reduce energy input in all pulping applications.

R&D activities during 2003 were committed to the optimization of newly developed products such as SelectaFlot™ flotation, CompaDis™ disperger, and Papillon™ low-consistency refiner. For screening, the ModuScreen™ A with flow optimized housing and parabolic rotor was introduced and has already been sold many times. It has also been used in the chemical pulping Fiberline Division.
This cleaner plant is part of a complete turn-key deinking line supplied to Vipap Videm Krško in Slovenia for the production of standard and upgraded newsprint from old newsprint and old magazines.
PROFILE

The Tissue Machines Division provides all modern types of tissue machines, including CrescentFormers, Through-Air Drying (TAD) technology, and machines with the patented TissueFlex™ shoe press. Ventilation and drying for tissue and other paper and board grades complement the product portfolio.

Andritz and Voith are parties in a cooperation agreement for tissue machines. The parties share know-how and conduct joint research and development. Andritz is responsible for the production and sale of tissue machines in Europe, Asia, and Africa. Voith Andritz Tissue LLC in the USA, a 50:50 joint venture of Andritz and Voith, serves the NAFTA markets.

The Tissue Machines Division is headquartered in Graz, Austria, and has sites in Växjö, Sweden; Lachine, Quebec, Canada; and Janesville, WI, USA (Voith Andritz Tissue LLC).

BUSINESS DEVELOPMENT

In international tissue markets, there is a continuing trend towards improved tissue paper quality. In Europe, supersoft tissue is increasingly important, which is reflected in numerous inquiries for the TissueFlex™ shoe press. Dust handling in tissue machines is still very important in Europe, due to concern about employee health and process safety.

In North America, tissue manufacturing is dominated by TAD machines, producing high-bulk and high-absorbency papers. The Asian market is rather stagnant, except China, which is showing quite strong project activities, also in the high-quality tissue sector.

A 50,000 t/a Andritz CrescentFormer tissue machine was started up successfully at Kriepa Hygienepapier, Kriebstein, Saxony, Germany, a subsidiary of the German tissue manufacturer WEPA. The machine reflects Andritz’s PrimeLine™ concept, and is the most-advanced CrescentFormer tissue production line today and produces supersoft tissue. It comprises a two-layer headbox, equipped with dilution water control to achieve best sheet profile, a TissueFlex™ shoe press and the first 700°C EquiDry S high-efficiency hood. Andritz also supplied the new two-line stock preparation.

Andritz’s commitment to the Through-Air Drying technology was recognized through an order to upgrade a TAD machine at Procter & Gamble, Orléans, France. The result of this modernization, completed in late 2003, is an increase of machine speed by nearly 15%.

The integration of the new Andritz Fiber Drying group (former ABB Drying, with global Yankee hood experience) into the Division was finalized in the course of the year. Besides the organizational integration, the biggest task was to combine the technologies of both Andritz and the former ABB Drying organization. Optimized products and equipment emerged from taking the best from the combined global experience.

*) Trademark of Voith, cooperation partner of Andritz in the field of tissue
This PrimeLine™ tissue machine including a TissueFlex™ shoe press was delivered to Kriepa Hygienepapier, Germany. It is the most advanced conventional tissue production line today.
MAJOR ORDERS

The Division received a pre-engineering order for the supply of a CrescentFormer tissue machine to Swedish Tissue, Kisa, Sweden, owned by leading British tissue manufacturer LPC Group. The new Andritz PrimeLine™ machine is similar to the proven concept of LPC’s PM2 machine in Leicester, UK, delivered by Andritz in 2001. It has been especially designed for the production of supersoft tissue products. This project is another confirmation of the proven TissueFlex™ shoe press technology.

Andritz’s Tissue Joint Venture with Voith in the USA received several orders for recently developed tissue machine components, such as the centerwind reel and multi-layer headbox.

RESEARCH AND DEVELOPMENT

Based on the combined air technology knowledge of Andritz and Andritz Fiber Drying, the main focus of the Tissue Machines Division’s R&D efforts was to fully exploit the potential of the Andritz Through-Air Drying technology. It includes the new high-performance PrimeTAD™ drum, the EquiDry TAD hood and air system for most uniform air flows, and other specific TAD components.

One very important wet-end component in the PrimeTAD™ machine is the three-layer headbox with integrated dilution profiling system. It was developed based on the operational experience with PrimeFlow™ two-layer headboxes in conventional tissue machines. The new headbox generates an excellent base paper quality.

In addition, the Division focused on the development of engineered service products. A Speed and Runnability Package for tissue machines was developed. This package comprises several upgrade components, as well as machine and plant surveys to define bottlenecks. Special instruments, such as PrimeDry TCS (a tool to gain knowledge about the Yankee dryer surface during operation) are part of the package.
The Paper Mill Services Division encompasses the service activities for Mechanical Pulping Systems, Pulp Drying, and Fiber Preparation Systems, and provides engineered screen baskets and refiner plate products also for other Andritz divisions.

Primary emphasis is on traditional mill service (engineered wear products, spare parts, equipment rebuilds and upgrades) to secure reliable and effective operation of customers' production systems. The two major wear products are refiner plates and screen baskets for any application, which are manufactured in Andritz’s own plants to proprietary designs for all types of refiners and screens.

The recent acquisition of Fiedler significantly improved the Division's ability to supply all types of screen baskets and rotors required in pulp and paper mills.

Additionally, the Division offers innovative solutions for increasing the reliability, efficiency, and availability of machines - from single equipment up to complete production system optimization, OPE® (Overall Production Efficiency).

Headquarters for the Paper Mill Services Division is Muncy, PA, USA. The Division is managed through major geographic regions, each with at least one Andritz Service Center equipped to provide fast and responsive services to local customers. Refiner plates are produced in Muncy. The production of screen baskets is performed in North America and Europe, with the Center of Competence in Regensburg, Germany.

At the beginning of the year, the Division successfully introduced the LemaxX Spiral® refiner plate to the world market. To date, over 500 units have been sold for all major refiners (Andritz, Beloit, Bolton-Emerson, Voith, and Escher Wyss). The significant features of the LemaxX Spiral® plate are its energy savings, improved fiber development without significantly affecting pulp drainage, and long life.

Another development in the field of engineered wear parts is the new design of the disc filter sector, which fits all Andritz as well as other manufacturers’ machines via a fast coupling-un-coupling procedure to substantially reduce repair and maintenance downtime. The Division expects this segment of the business to grow significantly as customers increasingly experience the cost savings. The first installation will start up in spring 2004.

The improved business climate has generated interest in rebuilding operating, but outdated mechanical pulping equipment. The Division has capitalized on developments in automation and electric motor technology to improve the performance of several refiners and refiner systems built by Andritz and other manufacturers. Of special note are the successful rebuilds of Jylhä refiners, which took place at Zubilade S.A, Spain and Stora Enso Summa Mill, Sweden. These rebuild programs are very beneficial to mills since they do not require extensive downtime and modifications to existing layouts, yet they offer significant improvements in production and fiber properties.
MAJOR ORDERS

- Stora Enso Sachsen, Germany, entrusted the Division with a modernization contract for a FibreFlow® drum.

- Large modernizations of TMP lines were ordered by Boise Cascade, DeRidder, LA, USA; Norske Skog, Powell River, Canada; and Holmen Paper A.B. in Sweden. Disc filter rebuilds were performed for UPM-Kymmene, Austria, and Norske Skog, France.

- Innovations introduced to the market, not only for Andritz equipment but also for other manufacturers’ equipment, enabled the Division to secure several orders for rebuilding refiners in UPM-Kymmene mills (Rauma and Jämsenkoski), and several other mills around the world.

OTHER IMPORTANT ORDERS

North America

- Stora Enso Port Hawkesbury Ltd., Canada: Twin 66 refiner rebuild program; SB170 refiner rebuild program

- Eurocan Pulp & Paper Co., Canada: HSD 64 refiner rebuild and rotor backing plate upgrade

- Millar Western Pulp Ltd., Whitecourt, Canada: Screen room upgrade

- Millar Western Pulp Ltd., Meadow Lake, Canada: Screen room upgrade

Northern Europe

- Holmen Paper A.B. Braviken Mill, Sweden: Twin 60 Refiner rebuild program

- Bäckhammars Bruk AB, Sweden Twin Flo refiner upgrade

Asia

- JSC NEUSIEDLER Syktyvkar, Russia: Retrofit of prescreening line with Fiedler screen baskets

Central Europe

- Norske Skog Golbey S.A., France: Disc filter upgrade program

- UPM-Kymmene Austria GmbH, Austria: Disc filter upgrade

- Papierfabrik Hainsberg, Germany: Complete rebuild of headbox screens with Fiedler screen baskets and rotors

- Ningbo Zhonghua Paper Co. Ltd., China: Rebuild of 3-stage fine screening line

Dongguan Nine Dragon Industries Co., China

- Complete engineered wear product contract for 5 paper machines

- Paper Corea Inc., South Korea: Rebuild of 3-stage headbox screening line

RESEARCH AND DEVELOPMENT

About 3% of the Sales volume is invested annually to improve the Division’s products both in terms of production efficiency and production capacity. These improvements are especially required for engineered wear products (refiner plates, screen baskets, and screen rotors) where competition is strong and continuous improvements must be made to expand Andritz’s market share.

With the goal to achieve further production process improvements, several new techniques for system optimization were investigated. One example is the disc filter upgrade package, which aims at increasing dewatering performance while improving mechanical reliability of both Andritz and other manufacturers’ equipment.
The right combination of screen basket and rotor is decisive for pulp quality and production performance of screening lines. Andritz baskets/rotors are used to screen various pulps (virgin and recycled fibers). They are the key to improving pulp quality and increasing production.
Annealing and pickling line for cold-rolled strip (KL3) supplied to ThyssenKrupp Nirosta in Krefeld, Germany. Production: approx. 250,000 t/a of stainless steel; strip widths from 600 to 1,380 mm; strip thicknesses: from 0.2 to 2.0 mm.
BUSINESS AREA MANAGER

Peter Gravert
Vienna, Austria
PROFILE

The Rolling Mills and Strip Processing Lines Business Area designs and builds complete lines for the production of cold-rolled carbon steel, stainless steel, and non-ferrous metals strip. These lines consist of equipment for cold-rolling, surface treatment, strip coating and finishing, and acid regeneration. The know-how and key equipment are developed in-house and manufactured at the Company’s own facilities.

The Andritz Group is the only single-source supplier capable of providing all technologies and processes involved in the manufacture of stainless steel strip (cold rolling, annealing, pickling, and finishing) on a comprehensive basis (mechanical, process and electrical equipment). This ensures minimized interfaces and takes the interdependencies of the overall process into consideration.

The acquisition of the furnace technology business from Selas S.A.S. added process know-how for continuous hot-dip galvanizing and carbon steel strip annealing systems to the Andritz portfolio. This enables the Business Area to offer complete systems for both continuous galvanizing processes: hot-dip and electrolytic galvanizing.

The Rolling Mills and Strip Processing Lines Business Area operates through the following companies: Andritz AG, Austria; Andritz-Ruthner Inc., USA; Thermtec B.V., Netherlands; Sundwig GmbH, Germany; Andritz Selas S.A.S., France; and Andritz Technologies Pvt. Ltd., India. It has manufacturing and assembly facilities in Graz, Austria and Hemer, Germany.

MARKET DEVELOPMENT

In 2003 the global steel market showed signs of recovery. Despite the sluggish development of the global economy, world consumption of steel products in 2003 grew by more than 5% to 884 million tons (2002: 831 million tons) according to the International Iron and Steel Institute. This increase is mainly due to the dynamic growth in China, where steel consumption grew by over 20% to 257 million tons (2002: 211 million tons). With a share of 29%, China is now the largest geographical region with regard to steel consumption and has accounted for nearly three quarters of the increase in global steel consumption over the last three years. All other geographical regions developed very moderately and showed no major increase in consumption.
As a result, project activity varied significantly among geographical regions. While international steel producers continued their cautious investment policy in Europe and the USA, project activity was extremely high in China. Especially in the area of stainless steel, which is the focus market for Andritz, many major reference projects were awarded.

The global stainless steel market continued its solid development in 2003. World consumption of stainless steel is expected to have reached a record level of more than 20.5 million tons in 2003, of which more than 12 million tons are cold-rolled strip. Especially in China, the largest buyer market for stainless steel, the demand rose very dynamically.

BUSINESS DEVELOPMENT

Sales of the Rolling Mills and Strip Processing Lines Business Area in 2003 were 173.1 MEUR, a slight decline of 2.4% compared to the previous year (2002: 177.4 MEUR). However, the execution of many projects only started in the second Quarter of 2003 with a rather low level of work in progress, translating only partly into Sales.

EBITDA for 2003 slipped to 6.6 MEUR, a decline of 40.5% compared to 2002 (11.1 MEUR). The main reasons for this development were on the one hand the extraordinarily high reference value of last year, on the other hand start-up losses by Selas, a company Andritz acquired in 2002, low capacity utilization in one of the Business Area’s product segments during the first Half of 2003, and lower margins for two projects introducing new technologies to the market for mixed acid recovery.

The Business Area’s Order Intake in 2003 developed very favorably, reaching a record level in the Group’s history. At 287.6 MEUR, it improved by 63.7% compared to 2002 (175.7 MEUR). The main portion of the Order Intake came from China, where Andritz was able to win important reference orders from renowned customers during the report-
Early in 2003 Andritz received an order from the Yieh-Group in Taiwan for an annealing and pickling line for hot-rolled stainless steel strip to be built for their new stainless steel plant in Guangzhou in Southern China. This line, with a capacity of 900,000 tons per year, is the largest in the world and can handle strip up to 12 mm in thickness and 1,550 mm in width. In addition, late in 2003 Andritz received an order for a mixed acid recovery plant also to be built at the same plant in China.

For these annealing and pickling lines, Andritz, with its subsidiaries Thermtec and Sundwig, is supplying complete systems consisting of mechanical equipment, annealing furnace, pickling section, and process automation. This reinforces the successful implementation of the Business Area’s strategy to master all technologies of an annealing and pickling line and to supply complete systems as a single-source supplier with comprehensive know-how.

**OTHER IMPORTANT ORDERS**

- **Jiangyin Honghua, China:** Push pickling line and acid regeneration plant
- **Sino Leading T., China:** Push pickling line and acid regeneration plant
- **Shougang J & S, China:** Push pickling line and acid regeneration plant
- **Böhler-Uddeholm, Sweden:** 20-high rolling mill
- **TISCO, China:** Pickling section for a hot strip annealing and pickling line
- **Baoutou, China:** Acid regeneration plant
- **Benxi, China:** Acid regeneration plant
- **NLMK, Russia:** Revamp of slitting line
- **Hövelmann, Germany:** Leveling and cutting line
- **Renault, France:** Several leveling lines
- **Corus, UK:** Revamp of a hot-dip galvanizing line

**RESEARCH AND DEVELOPMENT**

In 2003, research and development in the Business Area focused on the improvement of acid regeneration plants for spray roasting and fluidized bed systems for carbon steel, as well as mixed acid recovery for stainless steel. Another project was targeted at improving strip cleaning technology.

Andritz’s 20-high rolling mills and push pull pickling lines have been continuously improved and are now offered as standardized products.

Further improvements have been achieved in cost reduction and standardization of the furnace technology.
This electro-galvanizing line with anti-fingerprint coating with an annual capacity of 130,000 tons was delivered to Jiangyin Chang-Fa Antifingerprint Co. Ltd., China. The final product is used for household appliances. First galvanizing was performed only 16 months after contract signing.
ENVIRONMENT AND PROCESS
BUSINESS AREA

First BDS belt dryer of the new generation for sludge and biomass. This plant has a water evaporation capacity of 400 kg/h and is located in Elgg, Switzerland. The belt drying system can be heated directly or indirectly, using industrial waste heat.
The products of the Environment and Process Business Area cover the entire range of technologies for mechanical and thermal treatment of sludge from municipal and industrial sewage treatment plants. Andritz is one of the global leaders in this field and offers comprehensive services from design to manufacture of key components for sludge thickening, dewatering, drying and incineration as well as erection, and start-up of turnkey sludge treatment plants, including automation and safety engineering.

Industrial process technology is another important sector for the Business Area. Andritz supplies solid/liquid separation systems (heavy duty belt presses, centrifuges, hyperbaric drum and disc filters as well as different types of vacuum filters). Major industries using Andritz industrial process equipment include coal and mineral processing, chemical / petrochemical, and food processing.

In January 2004, Andritz acquired the Bird Machine Company business from Baker Hughes, Inc., which will contribute significantly to the Business Area’s industrial process technologies. A full range of R&B filter presses, Bird KHD/Humboldt solid and screen bowl centrifuges, and special Bird Humboldt Young Filters complement the Business Area’s existing product range.

The Business Area’s extensive product portfolio in industrial and municipal solid/liquid separation is supplemented by a large range of screens, sieves, and sand filters, offering customers technical solutions for nearly all applications.

The Business Area operates through its headquarters, Andritz AG, Austria, and the following affiliates: Andritz-Ruthner Inc. and Andritz-Bird Inc., USA; Andritz Separation GmbH, Germany; Andritz S.A.S., France; Andritz Ingeniería S.A., Spain; Andritz Technologies Ltd., China; Andritz Ltd., Great Britain; Andritz Pty Ltd., Australia; Andritz Singapore Pte Ltd., Singapore; and Andritz 3Sys AG, Switzerland.

Production facilities for machines and components are located in Châteauroux, France; Graz, Austria; Cologne, Germany; Den Helder, Netherlands; Pittsburg, TX, Muncy, PA, Scott Depot, WV, Houston, TX, Lakeland, FL, all in the USA; Saskatoon, Saskatchewan, Canada; Foshan, China; and in Singapore.
MARKET DEVELOPMENT

Andritz has consolidated its position as one of the leading suppliers of equipment for municipal and industrial waste water and sludge treatment facilities. The market for thickening and dewatering equipment showed a slightly positive development with several new projects awarded. However, the market for complete dewatering and drying systems decreased in 2003 due to a lack of funding and subsequent project postponements. This was most notable in Western Europe, but also in North America. Increasing interest was noted from Eastern Europe, not only among the EU membership candidates, but also from Russia and other CIS countries. Certain Asian markets are recovering, namely China, Korea, and Malaysia.

The industrial process market, particularly the coal and minerals processing industry, showed a high level of activity with capital investments in new equipment.

For 2004, the market outlook remains cautious, although a slight recovery of the municipal markets, particularly in North America, may be expected. In Western Europe, municipalities will have to comply with the new EU directive on landfilling which effectively bans disposal of sewage sludge and therefore requires investment in enhanced sludge treatment technologies.

BUSINESS DEVELOPMENT

Sales of the Business Area were 110.4 MEUR in 2003, a reduction of 10.1% compared to 2002 (122.8 MEUR). This decline is mainly due to the lower Order Intake as a result of persistently weak market conditions during the reporting year as well as delayed order execution as a result of customers’ requests.

Despite moderate market growth for equipment for municipal sewage and sludge treatment, Andritz has confirmed its leading position as a supplier of centrifuges, again reaching a record number of units sold in 2003.

At 3.3 MEUR, EBITDA in 2003 remained at a comparatively low level (2002: 2.8 MEUR), mainly as a result of weak demand for sludge drying plants.

Order Intake of the Business Area was characterized by a very reluctant investment policy on the part of municipalities, which resulted in postponements of a number of projects due to a lack of public funding. Order Intake reached 110.2 MEUR in 2003, down 25.4% compared to 2002 (147.7 MEUR).

MAJOR ORDERS

In 2003 the Business Area secured only two orders for larger drying plants. Through its subsidiary Andritz-Ruthner, Inc. one DDS drum drying system and two D5LL centrifuges were sold to Pierce County, WA, USA. Another DDS system including sludge incineration was purchased by an Austrian customer who will treat sludges from the City of Linz and neighboring municipalities. This plant is equipped with a granulate combustion unit which generates all of the heat required for the drying process by burning the dried granulate and therefore operates at very low costs.

The newly established affiliate Andritz 3Sys AG, Switzerland was very successful in its first full year of operation. It sold five belt drying plants in Austria, Switzerland, France, and Germany, the first of which was successfully put into commercial operation.

Andritz S.A.S. secured important orders for large centrifuges in Australia (five machines for Sydney), Malaysia (six machines for Kuala Lumpur), China (fourteen machines for Shanghai), France (ten machines for Paris North and South plants), as well as orders for several belt presses in Iran.
The City of Milan ordered eight AquaGuard fine screens and the Public Utilities Board of Singapore chose to install Andritz AquaScreens at their new Changi wastewater treatment plant. Several large Hydrasand sand filtration units were sold in the USA and in France. The Village Creek Sewage Treatment Works in Fort Worth, TX, USA, purchased six large AquaScreens.

Coal mines in Russia and China continued to order a significant number of Andritz HBF Hyperbaric Pressure Filters and CPF heavy-duty belt presses in 2003. Also, a Russian customer purchased an HBF system for copper flotation slurries. Several centrifuges were sold for soy milk and CaCO\textsubscript{3} applications.

RESEARCH AND DEVELOPMENT

A new innovative drive system for centrifuges was developed and tested successfully in 2003. This solution will be available on the market in mid 2004. Besides technical improvements it offers an extremely compact overall dimension of the machine.

Process and product design improvements with special focus on automation were performed during 2003 for centrifuges and drum drying systems. Layout, equipment arrangement and process design for DDS plants have been upgraded for better access and optimized product handling in order to reduce complexity and hence the need for maintenance, and improve operating feasibility.

All relevant products operating in an environment covered by the ATEX safety guidelines (EN 94/9 and EN 1999/92) have been certified according to these requirements.

New concepts for the utilization of waste heat from power plants and domestic waste incinerators for sludge drying were developed. In addition, dried sludge gains in importance as support fuel for power production since its calorific value is similar to that of brown coal.
Inside of a BDS belt dryer.
Gaujas Granulas, Latvia, recently installed a complete wood pelleting plant comprising two pelleting lines supplied by Andritz, with three Sprout-Matador PM30 pellet mills each. Each pellet mill produces four tonnes per hour of pellets from imported sawdust.
BUSINESS AREA MANAGERS

Finn N. Jensen (Sprout-Matador)
David Billingsley (UMT)
FEED TECHNOLOGY

IN BRIEF

- Decline in Sales due to weak market conditions and strength of Euro
- Increase in Earnings as a result of successful restructuring
- Solid development of orders for pelleting equipment

PROFILE

The Feed Technology Business Area is a global market leader for supplying machines and systems, pellet mill consumables, and other services to the animal feed industry, the pet food industry, as well as to the fish and shrimp feed industries. The Business Area also holds a leading position in fast-growing niche markets for wood fuel pelleting, pelleting of industrial by-products, and household waste.

During 2003 the Business Area underwent major restructuring, which led to the consolidation of technology management, procurement and production at two main sites. Esbjerg, Denmark, became the global center for new equipment (process equipment, technology and replacement parts), and Geldrop, the Netherlands, became the center for consumable parts (replacement dies and rolls for pellet mills, and beaters/hammers for hammer-mills).

In North America, an important market for this business, a strong sales network was established covering both systems and units as well as spare parts and wear parts (consumables). In addition an efficient service organization supports the customers. In Muncy, PA, dedicated in-house procurement services and manufacturing capacities are available for defined products as well as for replacement parts.

The Business Area has a central management and runs 14 regional sales and service offices. It is supported by a strong network of distributors and sub-suppliers.

MARKET DEVELOPMENT

The global feed market experienced a moderate development in 2003. The conventional feed industry showed higher market activity in Eastern Europe throughout the year, and in the second Half also in South America, mainly in the field of new, large-capacity, automated lines to high standards. In Western Europe and North America, investment activity was low, but of high quality.

In the aquatic feed segment, market development varied considerably. Salmon feed producers continued to keep investments low due to surplus production and low salmon prices. Warm water aquatic feed industries, on the other hand, showed a trend towards increased investments, both in fish and shrimp production.

In the second Half of 2003 the project activity of medium-size private label pet food manufacturers increased, with a number of new production lines being initiated.

KEY FIGURES FOR THE FEED TECHNOLOGY BUSINESS AREA (IAS)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Sales</td>
<td>99.2</td>
<td>108.4</td>
<td>107.0</td>
<td>67.8</td>
</tr>
<tr>
<td>Order Intake</td>
<td>102.0</td>
<td>104.7</td>
<td>112.6</td>
<td>70.7</td>
</tr>
<tr>
<td>Order Backlog as of 31.12.</td>
<td>24.5</td>
<td>23.5</td>
<td>27.6</td>
<td>14.3</td>
</tr>
<tr>
<td>EBITDA</td>
<td>7.4</td>
<td>6.1</td>
<td>4.7</td>
<td>4.6</td>
</tr>
<tr>
<td>EBITDA margin</td>
<td>7.5%</td>
<td>5.6%</td>
<td>4.4%</td>
<td>6.8%</td>
</tr>
<tr>
<td>EBITA</td>
<td>4.8</td>
<td>4.2</td>
<td>0.9</td>
<td>2.4</td>
</tr>
<tr>
<td>EBITA margin</td>
<td>4.8%</td>
<td>3.9%</td>
<td>0.9%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Capital investment</td>
<td>6.6</td>
<td>5.4</td>
<td>6.7</td>
<td>0.8</td>
</tr>
<tr>
<td>Employees</td>
<td>549</td>
<td>609</td>
<td>676</td>
<td>412</td>
</tr>
</tbody>
</table>
The market for biofuel pellets (wood pellets and wood powder) continued to develop favorably in Northern Europe, Eastern Europe, and in North America. Other forestry regions - South America and South Africa - started pioneering in this environmentally friendly fuel niche, leading to overall satisfactory project activity.

**BUSINESS DEVELOPMENT**

Sales development of the Feed Technology Business Area in 2003 were primarily affected by the continued weakness of the North American feed market and the decline of the US dollar against the Euro. As a result, Sales declined by 8.5%, to 99.2 MEUR in 2003 (2002: 108.4 MEUR). Excluding the exchange rate effects, Sales are down by approx. 5%.

Despite the reduction in Sales, Earnings progressed favorably. EBITDA amounted to 7.4 MEUR in 2003, an improvement of 21.3% compared to 2002 (6.1 MEUR). This was due to successful restructuring measures, which had progressed as planned and are expected to be completed by mid-2004. Profitability (EBITDA margin) increased to 7.5% in 2003 (2002: 5.6%).

Order Intake in 2003 amounted to 102.0 MEUR, a decline of 2.6% compared to 2002 (104.7 MEUR). With the exception of North America, the Business Area recorded growth rates in every major sales region.

**MAJOR ORDERS**

- The Business Area secured a number of large orders for poultry and animal feed processing towers in Eastern Europe, including a complete technology supply package for a new three-line feed mill in Croatia.
- In fish feed and pet food applications, numerous orders for extrusion line upgrades with improved automation and flexibility-enhancing features - Flextex™ and ECS™ - were secured.
- In addition, the Business Area received orders for a number of new process lines for both pet food and aquatic feed, mainly from Eastern Europe, the Mediterranean region, and South America. A large 16 t/hr pet food line was successfully commissioned in Southern Europe during the first Half of 2003.
- In the fourth Quarter of 2003, a large order was booked for a waste pelleting plant in Germany.
- Several orders for wood pelleting plants were received from North America, Scandinavia, Eastern and Central Europe, and South Africa.

**RESEARCH AND DEVELOPMENT**

Research and development activities in 2003 focused on adding value to animal feed pelleting, as well as to pet food and aquatic feed extrusion plants, by improving flexibility, controllability, and process traceability of the key process technologies.

New developments included the Flextex™ extrusion concept for increased versatility of any type of feed or food extruder. This concept helps improve product homogeneity, texture, and expansion.

The SM32™ Scada control concept was improved to support feed/food chain safety through traceability of feed ingredients and process data.

A new method for remote analog setting of pellet mill rolls was developed, successfully tested, and delivery of several units was completed.
Pelton runner for Gerlos hydro power plant in Austria, ordered by Austrian Hydro Power. This runner was manufactured from a single forged disc using a new NC milling process.
IN BRIEF

- Order Intake reaches record level
- Andritz-Kenflo continues outstanding development
- Strong focus on R&D

PROFILE

Other Operations encompasses Andritz Group activities such as the development, planning, and manufacture of water turbines, centrifugal pumps for the pulp and paper industry, large-scale pumps for selected applications, pumps for the primary and secondary loops in nuclear power stations, as well as space technology components. The main markets are Europe and Asia.

MARKET DEVELOPMENT

Conditions for the Business Area’s main product, water turbines, remained difficult in Austria in 2003. There were only a few modernization, repair, and service projects. Where new investments were concerned, the mini-power sector - involving projects below 10 MW - saw a certain degree of revival, but with the price pressure in this sector being quite strong.

By contrast, the Chinese market was once more characterized by high investment propensity and brisk project activity for turbines.

The market for stock pumps for the pulp and paper industry showed a quite varied geographical development. While demand in Europe remained at a rather moderate level, project activity in China was very brisk, with a lot of new project awards.

BUSINESS DEVELOPMENT

Sales in 2003 totalled 32.0 MEUR, a 9.2% increase over 2002 (29.3 MEUR). EBITDA was 3.2 MEUR, significantly less than in the previous year (2002: 7.4 MEUR), due to processing of a high-margin order during the third Quarter of 2002.

Order Intake reached an historic record level: 37.3 MEUR. This represents an increase of 31.8% compared to the previous year’s value (2002: 28.3 MEUR). Especially in China, some major orders for water turbines were booked, and the favorable development of the stock pumps business in China also contributed to this success.

The 60:40 Joint Venture Andritz-Kenflo is the undisputed market leader for stock pumps in China. In 2003 once again, the number of stock pumps sold to paper mills was markedly increased compared to the previous year. Since its foundation in 1998, Andritz-Kenflo has increased the number of pumps sold more than 10 times, reaching a new record level in 2003. The outstanding business development of Andritz-Kenflo in China over the
past years has made Andritz one of the leading manufacturers of pumps for several applications.

Andritz Technologies Ltd., China, founded in 2001, also showed a very positive development. Initially established to sell products for the Environment and Process Business Area, it continuously extended its business scope to include products for the pulp and paper industry as well as pumps for municipal and industrial applications. For the latter, the Business Area was able to conclude the first contracts with renowned customers.

In 2003, the service business - modernizations and rebuilds of turbine controls, spare parts supplies for nuclear power stations, and centrifugal pumps for the pulp and paper industry - again proved to be a strong pillar of the Business Area's business development.

At Großraming power station, Austria the second turbine set was successfully taken into operation.

The second set of pumps for the water supply of Hong Kong was started up at the beginning of the year. Andritz supplied the entire mechanical engineering services for this project as well as core parts for 16 large-scale pumps.

RESEARCH AND DEVELOPMENT

The proven cooperation with ASTRÖ (Institute for Hydraulic Research) for advancement of hydraulic components was continued and intensified in 2003. Further optimizations were achieved both with regard to the hydraulic equipment for turbines and shaft seals for nuclear power stations.

A new, efficient process for the manufacture of Pelton runners was developed and, for the first time, successfully applied in the supply of two turbine runners.

Other development activities were focussed on stock pumps for the pulp and paper industry. A new key component for heating stock suspensions was developed, the Dynamic Steam Heater. In pulp and paper production, most stock suspensions are heated with steam. Until now, the steam was mixed with the suspension statically, which caused pressure surges, deposits, and overheating of the stock. The new Andritz system blends the stock and the steam dynamically, with rotating nozzles, and thus avoids negative effects of the static process.

MAJOR ORDERS

Orders for key components for bulb turbines were received from major Chinese customers for Hong Hua, Xin Zheng, and Zhu Zhou water power stations, the latter being a large order including the complete engineering design work.

The German utility company E.ON gave Andritz an order for rehabilitation and upgrading of Tanzmühle pump storage plant, Germany.
Automation equipment is an integral part of products in all Business Areas of the Andritz Group. There are about 300 engineers at 18 Andritz sites worldwide developing and implementing automation solutions for Andritz machines and plants.

Andritz Automation's core competences include project design and planning, start-up, plant optimization, and aftersales service for plants designed and manufactured by Andritz. Cooperation between all Business Areas within Andritz Automation ensures that the process know-how available throughout the Andritz Group can be applied to obtain optimized customer-oriented solutions.

Innovations are implemented in a joint, coordinated research and development program for automation in order to keep up with the higher frequency of introducing new products. In 2003, automation solutions were developed for all Business Areas in order to improve the processes and plants both technically and economically.

RESEARCH AND DEVELOPMENT

Andritz Automation focused its R&D activities in 2003 on special sensors, new control strategies and tools, as well as procedures to improve the efficiency of engineering.

“Uniform Tool for Engineering“
A new engineering tool which can be used in all Business Areas and by all process, mechanical, and automation engineers involved in a project was developed and implemented. The “Uniform Tool” shortens planning time and improves the quality of documentation all along the planning, design, and plant operation phases.
Thermography
Andritz Automation developed a new mobile measuring system for surface inspection of Yankee cylinders in paper mills. The system monitors coating thickness and surface temperature of the cylinder in operation. The results are displayed in 3D, usually locating mechanical, temperature and coating-related deficiencies.

Refiner Commander™
A new modular automation system for refiner control, the Refiner Commander™, was developed. It features a new hardware configuration, object-oriented software structure, a high-response hydraulic system, and includes advanced machine and plate protection.

With five systems operating in China, and eight additional units sold, the new Refiner Commander™ has already proved successful in the market.

Bale tracking system
For baling lines, Andritz Automation has developed a new system which keeps track of each pulp bale throughout the entire baling process and provides relevant information for warehouse management or ERP systems.

BUSINESS DEVELOPMENT

IDEAS Simulation Inc., a global market leader for dynamic process simulation for the pulp and paper industry, which was acquired by Andritz in January 2003, delivered a fiberline simulator for the Bowater, Catawba project in the USA, simulators for several areas of the Valdivia pulp mill in Chile, a recovery boiler simulator to Weyerhaeuser, Canada, and an oxygen bleaching simulator to Kimberly-Clark, Canada.

The entire Veracel pulp mill in Brazil will be simulated using IDEAS software. In addition, IDEAS is the software of choice for the world-class Andritz pulp dryer being built in Hainan, China, and also the evaporators to be delivered to China in 2004.

A large contract was awarded by Canadian Natural Resource Ltd. in Canada for simulation of an oil sands plant.

Rolling mills and strip processing lines for Asian plants are now equipped with visualization based on WinCC with diagnostic tools for variable use of four major Asian languages to improve Andritz’s position on the market. The Asian characters make training easy for the operators. For service and start-up purposes, the character set can be switched to English or German.

Andritz PrimeControl™ for tissue machines developed in 2002 was successfully placed in operation in paper mills in Germany, Spain, UK, Poland, and China.

The consistent use of the “soft commissioning” procedure for software products in factory acceptance tests convinced clients in South Africa and China to order Balematic control systems for their baling lines.

With the acquisition of Acutest Oy Andritz gained access to unique Acoustic Condition Monitoring (ACM) technology and expertise that completes Andritz’s offering in preventive maintenance and safety services. ACM equipment helps to detect cracks, leaks, vibration, and friction in process machinery. One important application of ACM is for detecting leaks in recovery boilers operated in pulp mills.
The complexity of Andritz products requires manufacturing standards of the highest level, systematic organization, well-defined business processes, and, above all, well-trained employees who take care of planning, manufacturing, and installation of machines and plants.

“Do it right the first time” is what it takes to be successful - and this is what Andritz Quality Management strives to achieve.

The production sites run by the Andritz Group focus on key components and equipment whose design and manufacture need special knowledge and experience. Other components are sourced from sub-suppliers. All sub-suppliers are carefully chosen based on measured performance in terms of quality, delivery time, and cost. Sub-supplier work is routinely monitored by Andritz. These suppliers have long-term experience working with Andritz and are a key factor in the cost leadership of the Andritz Group.

**MAJOR DEVELOPMENTS IN 2003**

Quality management activities in 2003 focussed on implementing the business process approach. The essential business processes - product management and R&D, sales, delivery, service, along with procurement, manufacturing, human resources and improvement - were reviewed and modified to ensure that "Best Practice" is applied. Training in these processes ensures a common understanding of the necessary steps to master the risks inherent in Andritz's business and to apply the quality standards defined in day-to-day work.

Safety at work is an issue of major concern to Andritz. It was decided to include the management of all activities to enhance the safety of employees, in-house as well as on customer sites, as an integral part of the quality management system. Management of safety at work is organized according to management standard OHSAS 18001.

An intranet-based feedback system for internal and external complaints and suggestions for improvement was installed by Andritz AG after being used successfully by Andritz Oy. This tool facilitates improvement on a wide range of levels, including manufacturing, standardization, and business processes.

Group-wide cooperation is being fostered in quality management. Examples of synergies used are the unified process descriptions in the Rolling Mills and Strip Processing Lines Business Area and the feedback system. In 2004, it is planned to use synergies to harmonize the management systems of several Andritz sites.
As of December 31, 2003, the Andritz Group had a total of 4,771 employees (2002: 4,601). The increase of 3.7% compared to 2002 is mainly due to the acquisition of Fiedler, and was partly offset by slightly decreasing numbers of employees in some other Andritz Group companies. At year’s end, 1,173 people were employees of Andritz AG (2002: 1,161) and 3,598 employees (2002: 3,440) were working for other Andritz Group companies.

The regional distribution of the Group’s employees remained nearly unchanged compared to 2002: approximately 24% of the workforce is based in Northern Europe (2002: 25%), 25% in Austria (2002: 25%), 20% in North America (2002: 23%), 13% in Germany (2002: 8%), 5% in Denmark (2002: 5%), 1% in the United Kingdom (2002: 2%), 3% in the Netherlands (2002: 4%), 4% in France (2002: 5%), 3% in China (2002: 1%), and 2% in other countries (2002: 2%).

This distribution of the workforce reflects both the global presence and the international approach of the Andritz Group. During 2003, the staff of the Andritz Group in China increased steadily following the strategy to establish a strong presence in this fast growing market.

A revised product-oriented organizational structure was established for Pulp Mill Technologies, splitting the former Kraft Mill Systems Division into three new Divisions with global responsibility: Fiberline Division, Chemical Systems Division, and Recovery Division. All top management positions in these Divisions were filled with experienced managers from Andritz, who had to complete a demanding and challenging assessment procedure.

Managers in central functions, who were appointed at the beginning of 2003, have quickly settled in their areas of responsibility and contributed to the success of the Group.

All vacancies in managerial as well as in other functions were filled with highly qualified candidates.

Major Developments in 2003

During the year under review, the Andritz Group Management Training Program was successfully revised. Together with a renowned European management consulting and training institute, the program was adjusted to today’s management needs and challenges. The first module of the Andritz Management Challenge Program was held as a pilot seminar in Austria. Twenty-two employees from 12 different Andritz Group companies participated in this training. The structure of this training group can also be seen as a strong sign for Andritz’s global organizational approach. Feedback from participants was very positive. Some minor adjustments for the next program - planned to start in autumn 2004 - will be made. The second module of this overall management training will take place in spring 2004 in Finland.

More than 30 employees gained new skills in Conflict Resolution Management during seminars held in Belgium, Finland, and Austria. Participants learned new approaches to handling sensitive issues and intercultural differences.

An interactive computer and internet-based training module that gives new recruits primary information about the Andritz Group was developed by the Human Resource department in Finland. The roll-out in other Group locations is planned in the near future.

In addition to Group-wide training activities local training was held in all companies belonging to the Andritz Group.

Cooperation between Andritz Human Resources Managers from North America, Nordic Countries, and Austria was intensified in 2003. Regular meetings supported the sharing of experiences. Common Human Resources tools were coordinated and harmonized. The most important activities such as clear definition of position requirements, recruiting, introduction of new recruits, training, performance assessment, etc. were documented in the Human Resources process within the Quality Management System.
The Andritz Group is committed to sustained environmental protection and conservation of natural resources and pursues an active information policy vis-à-vis the people living in the vicinity of the Group’s production sites, the general public, and authorities.

The production processes applied and the products manufactured are designed to use natural resources in the best possible way such as to keep the impact on the environment to a minimum and at the same time reduce production costs as well as operation costs for Andritz customers.

Uniform environmental protection guidelines have been implemented at all Andritz production sites. Environmental protection assignees make sure that these guidelines are strictly adhered to.

In 2003, Andritz AG issued an official Declaration on Environmental Protection that sets out the principles and objectives of its environmental policy.

ENVIRONMENTAL ACHIEVEMENTS

The Andritz site in Graz, Austria again received the “ÖKOPROFIT” certificate, which is awarded by the City of Graz for special efforts in environmental protection. The Graz site has succeeded in reducing the amount of waste generated by a further 12%. The existing ultra-filtration plant for wastewater was enlarged in order to improve the quality of water discharged into the sewerage system. Thermography was used for the first time to identify potentials of improving insulation for workshops.

Ecological aspects are integrated in training programs to encourage Andritz staff to take an active part in environmental protection.

ANDRITZ PRODUCTS FOR A CLEANER ENVIRONMENT

The Pulp and Paper Business Area offers many processes and systems that reduce waste, save energy, and minimize effluents/emissions for customers’ operations.

Many mills are seeking to reduce the environmental impact of their bleaching processes. Andritz has developed bleaching systems which utilize alternative chemicals for reduced environmental impact. Andritz systems for dewatering and water recycling within the mill reduce the effluent loads on nearby receiving waters.

In the chemical recovery area, the Andritz X-Filter™ offers an efficient method for removing non-process elements from green liquor. Removal of these elements allows mills to close effluent loops that would otherwise be open to the environment.

“Dregs” (remnants from the recausticizing process) are becoming a subject of environmental concern, and the cost for landfiling such waste by-products is significant. Dewatering of green liquor dregs with the Andritz DreX™ process reduces landfilling costs and environmental impact.

The new, patented Andritz Vertical Air™ system creates optimum temperature and velocity profiles in recovery boiler furnaces. This improves the efficiency of the boiler and reduces the excess oxygen in the flue gases, which results in very low nitrogen oxide emissions. The boiler also burns odorous gases collected from the mill, resulting in a significant reduction of sulfur emissions.

In terms of true energy conservation, the new Papillon™ cylindrical refiner combines gentle, stable fiber treatment with low-energy consumption. The no-load energy consumption is 40-45% lower than for double-disc refiners, or even conical refiners.
The FilRec™ filler/fiber recovery system allows mills to re-use coating minerals and paper fillers that would otherwise be sent to landfills.

For tissue applications, the TissueFlex™ shoe press helps operators reduce the quantity of chemicals, especially softeners, used in the process. This leads to less contamination of the white water and reduces the load on the wastewater treatment facility.

Annealing and picking lines for stainless steel are key products offered by the Rolling Mills and Strip Processing Lines Business Area. In annealing furnaces and in picking plants, exhaust gases containing NOx are generated. To reduce NOx emissions to a minimum, Andritz uses Low-Low NOx burners in annealing furnaces. Picking plants are equipped with catalysts developed by Andritz to turn NOx into innocuous nitrogen.

In regeneration plants for waste acid from pickling processes, special measures are taken by Andritz to prevent unwanted pollutant emissions. Andritz uses, for instance, a chemicals washer which removes virtually all chlorine from the exhaust gas using process liquid without generating wastewater. This washer was also developed by Andritz.

Andritz-affiliate Sprout-Matador has supplied pelleting equipment with an overall annual production capacity of more than 1.7 million tons of fuel pellets, which, in terms of energy, corresponds to over 7.5 million MWh. Additionally, several plants for the generation of powder from wood chips, wood pellets, and straw were supplied. The biomass powder is used by large-scale central power plants to replace coal, thereby reducing CO2 emissions.

Andritz also offers process solutions for pelleting industrial and household waste. Pelleting increases the bulk weight of the waste by a factor of up to 10, thus generating a product that is easier to transport and store for further treatment, e.g. recycling or combustion. This promotes controlled handling rather than local burning or dumping. Andritz-affiliate UMT’s Paladin™ pellet mills hold a leading position in this application.

Several thousand Jesma® filters supplied by Andritz to a wide variety of industries ensure thorough cleaning of exhaust air.
Manufacturing of key components at its own production sites is one of the core competences of Andritz. The long-term experience and existing know-how of Andritz in manufacturing ensure best results for customers in terms of product quality, cost, and lead time.

Andritz employs approximately 1,900 people in manufacturing. In 2003 again, hundreds of young people gained valuable experience as trainees in one of the Andritz companies. Many of them may come back and start their professional career at Andritz.

MANAGING WORKLOAD

During the past years, Andritz has significantly reduced the extent to which its products are manufactured in wholly-owned workshops. In 2003, slightly less than half of the components were manufactured there — the balance being manufactured by sub-suppliers. This allows the company to efficiently manage workload and to focus in-house labor force on the technically demanding core products, which require specific experience and know-how. At the same time less essential components and equipment are sourced from qualified sub-suppliers, who are selected and supervised by manufacturing management in order to meet Andritz’s standards for cost, quality, and lead time. In addition, highs and lows in workload are managed by employing temporary workers, and with the help of a highly flexible base workforce.

QUALITY, SPEED, AND COST

Andritz strives to improve manufacturing processes continuously to achieve optimum results in lead time, quality, and cost. This involves introducing new, yet reliable manufacturing techniques and methods, continuous benchmarking, and strong cooperation between Divisions, procurement, and manufacturing.

MAJOR DEVELOPMENTS IN 2003

The year 2003 was characterized by continued high workload for all Andritz manufacturing sites, especially for Graz, Austria; Savonlinna, Finland; and Esbjerg, Denmark. As in the previous years, all agreed major delivery deadlines were met despite high capacity utilization at all Andritz manufacturing sites.

With the acquisitions of Fiedler and Bird Machine, new manufacturing locations in Germany, the Czech Republic, the Netherlands, and the USA were added to the Andritz Group.

Manufacturing of wear parts (consumables) for the Feed Technology Business Area was concentrated at a new manufacturing center in Geldrop, the Netherlands.

Considering the importance of China as a dynamic growth market, Andritz reinforced its presence there by building a modern manufacturing complex in Foshan, which has been operational since the beginning of 2004. The Foshan facility manufactures equipment for sewage sludge treatment plants, for the pulp and paper industry, as well as pumps for different applications.
The Andritz Group’s strong growth over the past years has caused new business processes and, in conjunction with this, different IT solutions, to be added practically with each new acquisition. However, this has made the targeted Group-wide integration of Business Areas and utilization of synergies more difficult.

In addition, the global organization of Business Areas requires new ways of thinking and new approaches to allow optimum utilization of the operative efficiencies in internal cooperation. Development of adequate structures to respond to these new requirements necessitates a critical review of the current processes.

This is the focus of professional business process management. Its goal is to redefine competences and to adapt processes to new technologies and to new entrepreneurial situations as well as to check the interfaces between the different companies in the Andritz Group.

MAJOR DEVELOPMENTS IN 2003

In 2003, the focus of activities was on the development of a strategy for consolidation of Andritz’s IT system landscape, especially in the area of ERP (Enterprise Resources Planning) systems. The result of the strategy is that Andritz will introduce global business processes in the framework of a global ERP system. This will not be done in one step but over a period lasting several years, during which the major Andritz Group companies will be migrated successively to the new Andritz Group ERP.

In 2004, a global project team will be working on the definition of ERP relevant business processes that are to be implemented into the new Andritz Group ERP in an iterative process right away. It will be an international team composed of representatives of all Business Areas and relevant service departments. This should ensure involvement of at least some of the main representatives of the essential organizational units from the start of the implementation phase, and provide for a smoother transition phase.

The first part of the global project is termed “Blueprint & Implementation Project,” with five core teams defining the relevant processes in the sales/order execution, service, finance/controlling, engineering, and material management areas.

The completion target for this project is the end of the year 2004, enabling the first Andritz sites to use the new ERP system productively already during the first Half of 2005.
INDEPENDENT AUDITORS’ REPORT

We have audited the accompanying consolidated financial statements of Andritz AG and subsidiaries as of December 31, 2003 prepared in accordance with International Financial Reporting Standards (IFRS) of the International Accounting Standards Board. These group financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these group financial statements based on our audit. The audits of the annual accounts of Group subsidiaries were partly carried out by other auditors. As far as these subsidiaries are concerned, our opinion is based solely on the report of the other auditors.

We conducted our audit in accordance with International Standards on Auditing („ISA“) issued by the International Federation of Accountants („IFAC“). Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit and the reports of the other auditors provide a reasonable basis for our opinion.

In our opinion the consolidated financial statements present fairly, in all material respects, the financial position of the Group as of December 31, 2003, and of the results of its operations and its cash flows for the year then ended in accordance with International Financial Reporting Standards.

We certify that the status report is in compliance with the consolidated financial statements and that the legal requirement for the exemption from the obligation to prepare consolidated financial statements in accordance with the Austrian Commercial Code are met.

Vienna, February 17, 2004

AUDITOR TREUHAND GMBH
Wirtschaftsprüfungs- und Steuerberatungsgesellschaft

Alfons STIMPFL-ABELE  Walter MÜLLER
(Austrian) Certified Public Accountants

AUDITOR TREUHAND GMBH is a member of 

Deloitte.

In case that the consolidated financial statements are disclosed or handed over to a third party in a version which differs from that certified by us, our prior approval is necessary if our audit opinion is included or our audit is mentioned.
## CONSOLIDATED BALANCE SHEET

**AS OF DECEMBER 31, 2003 AND 2002**

<table>
<thead>
<tr>
<th>Notes</th>
<th>2003 (in TEUR)</th>
<th>2002 (in TEUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intangible assets</td>
<td>4921</td>
<td>5651</td>
</tr>
<tr>
<td>Goodwill</td>
<td>122,785</td>
<td>133,687</td>
</tr>
<tr>
<td>Property, plant and equipment</td>
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<td>120,679</td>
</tr>
<tr>
<td>Shares in associated companies</td>
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<td>3,384</td>
</tr>
<tr>
<td>Investments</td>
<td>2,340</td>
<td>11,748</td>
</tr>
<tr>
<td><strong>Fixed and financial assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>260,233</td>
<td>275,149</td>
</tr>
<tr>
<td>18.</td>
<td>18,786</td>
<td>17,696</td>
</tr>
<tr>
<td>Inventories</td>
<td>2.</td>
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</tr>
<tr>
<td>Advance payments made</td>
<td>3.</td>
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</tr>
<tr>
<td>Trade accounts receivable</td>
<td>4.</td>
<td>216,702</td>
</tr>
<tr>
<td>Cost and earnings of projects under construction in excess of billings</td>
<td>5.</td>
<td>107,738</td>
</tr>
<tr>
<td>Other receivables</td>
<td>6.</td>
<td>60,510</td>
</tr>
<tr>
<td>Prepayments and deferred charges</td>
<td></td>
<td>4,224</td>
</tr>
<tr>
<td>Marketable securities</td>
<td></td>
<td>52,705</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td></td>
<td>120,876</td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>687,803</td>
<td>617,020</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>966,912</td>
<td>909,865</td>
</tr>
<tr>
<td><strong>Shareholders’ equity and liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share capital</td>
<td>94,510</td>
<td>94,510</td>
</tr>
<tr>
<td>Capital reserves</td>
<td>45,966</td>
<td>45,966</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>92,008</td>
<td>82,461</td>
</tr>
<tr>
<td><strong>Shareholders’ equity</strong></td>
<td>232,484</td>
<td>222,937</td>
</tr>
<tr>
<td>Minority interests</td>
<td></td>
<td>6,616</td>
</tr>
<tr>
<td>Bonds</td>
<td></td>
<td>100,000</td>
</tr>
<tr>
<td>Bank loans - non current</td>
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<td>4,486</td>
</tr>
<tr>
<td>Provisions - non current</td>
<td>9.</td>
<td>72,969</td>
</tr>
<tr>
<td>Obligation under finance leases - non current</td>
<td></td>
<td>919</td>
</tr>
<tr>
<td><strong>Non-current liabilities</strong></td>
<td>11.</td>
<td>178,374</td>
</tr>
<tr>
<td><strong>Liabilities for deferred taxes</strong></td>
<td>18.</td>
<td>50,546</td>
</tr>
<tr>
<td>Bank loans - current</td>
<td></td>
<td>11,104</td>
</tr>
<tr>
<td>Obligations under finance leases - current</td>
<td></td>
<td>484</td>
</tr>
<tr>
<td>Bills of exchange</td>
<td></td>
<td>1,550</td>
</tr>
<tr>
<td>Trade accounts payable</td>
<td></td>
<td>104,580</td>
</tr>
<tr>
<td>Billings in excess of cost and earnings of projects under construction</td>
<td>5.</td>
<td>107,399</td>
</tr>
<tr>
<td>Advance payments received</td>
<td></td>
<td>30,765</td>
</tr>
<tr>
<td>Provisions - current</td>
<td>9.</td>
<td>77,459</td>
</tr>
<tr>
<td>Liabilities for current taxes</td>
<td></td>
<td>16,670</td>
</tr>
<tr>
<td>Other current liabilities</td>
<td>12.</td>
<td>148,881</td>
</tr>
<tr>
<td><strong>Current liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>498,892</td>
<td>470,125</td>
</tr>
<tr>
<td><strong>Total Shareholders’ equity and liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>966,912</td>
<td>909,865</td>
</tr>
</tbody>
</table>

The following notes to the consolidated financial statements form an integral part of this consolidated balance sheet.
### CONSOLIDATED INCOME STATEMENT

FOR THE YEARS ENDED DECEMBER 31, 2003 AND 2002

<table>
<thead>
<tr>
<th>Notes</th>
<th>2003 (in TEUR)</th>
<th>2002 (in TEUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>13. 1,224,990</td>
<td>1,110,110</td>
</tr>
<tr>
<td>Changes in inventories of finished goods and work in progress</td>
<td>-3,517</td>
<td>1,011</td>
</tr>
<tr>
<td>Capitalized cost of self-constructed assets</td>
<td>156</td>
<td>244</td>
</tr>
<tr>
<td>Other operating income</td>
<td>14. 20,099</td>
<td>16,173</td>
</tr>
<tr>
<td>Cost of materials</td>
<td>-676,133</td>
<td>-618,703</td>
</tr>
<tr>
<td>Personnel expenses</td>
<td>15. (304,797)</td>
<td>(287,316)</td>
</tr>
<tr>
<td>Other operating expenses</td>
<td>16. (176,428)</td>
<td>(140,645)</td>
</tr>
<tr>
<td>Earnings before interest, taxes, depreciation and amortization (EBITDA)</td>
<td>84,370</td>
<td>80,874</td>
</tr>
<tr>
<td>Depreciation and amortization (without amortization of goodwill)</td>
<td>(21,237)</td>
<td>(22,141)</td>
</tr>
<tr>
<td>Earnings before interest, taxes and amortization of goodwill (EBITA)</td>
<td>63,133</td>
<td>58,733</td>
</tr>
<tr>
<td>Amortization of goodwill</td>
<td>(14,201)</td>
<td>(13,467)</td>
</tr>
<tr>
<td>Earnings before interest and taxes (EBIT)</td>
<td>48,932</td>
<td>45,266</td>
</tr>
<tr>
<td>Income/Expense from associated companies</td>
<td>(419)</td>
<td>(46)</td>
</tr>
<tr>
<td>Interest result</td>
<td>1,006</td>
<td>321</td>
</tr>
<tr>
<td>Other income from financing activities</td>
<td>(201)</td>
<td>194</td>
</tr>
<tr>
<td>Financial results</td>
<td>17. 386</td>
<td>469</td>
</tr>
<tr>
<td>Earnings before taxes (EBT)</td>
<td>49,318</td>
<td>45,735</td>
</tr>
<tr>
<td>Income taxes</td>
<td>18. (18,801)</td>
<td>(18,088)</td>
</tr>
<tr>
<td>Net income</td>
<td>30,517</td>
<td>27,647</td>
</tr>
<tr>
<td>Share of profit due to minority interests</td>
<td>(1,389)</td>
<td>(1,189)</td>
</tr>
<tr>
<td>Net income excluding minority interests</td>
<td>29,128</td>
<td>26,458</td>
</tr>
</tbody>
</table>

| Earnings per non par value share (in EUR) | 19. 2.26 | 2.04 |
| Proposed or paid dividend per non par value share (in EUR) | 1.00 | 0.90 |
| Weighted average number of non par value shares | 12,871,600 | 12,976,624 |

The following notes to the consolidated financial statements form an integral part of this consolidated income statement.
## CONSOLIDATED CASH FLOW STATEMENT

FOR THE YEARS ENDED DECEMBER 31, 2003 AND 2002

<table>
<thead>
<tr>
<th></th>
<th>2003 (in TEUR)</th>
<th>2002 (in TEUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Earnings before taxes (EBT)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest result</td>
<td>(1,006)</td>
<td>(321)</td>
</tr>
<tr>
<td>Depreciation and amortisation of fixed assets</td>
<td>35,410</td>
<td>35,723</td>
</tr>
<tr>
<td>Income/Expenses from investments in associated companies</td>
<td>419</td>
<td>46</td>
</tr>
<tr>
<td>Changes in accrued expenses</td>
<td>8,725</td>
<td>7,846</td>
</tr>
<tr>
<td>Results from the sale of fixed and financial assets</td>
<td>(62)</td>
<td>(323)</td>
</tr>
<tr>
<td>Taxes paid</td>
<td>(10,207)</td>
<td>(10,017)</td>
</tr>
<tr>
<td>Interest received</td>
<td>5,973</td>
<td>6,647</td>
</tr>
<tr>
<td>Interest paid</td>
<td>(5,992)</td>
<td>(6,495)</td>
</tr>
<tr>
<td><strong>Gross cash flow</strong></td>
<td>82,578</td>
<td>78,841</td>
</tr>
<tr>
<td>Changes in inventories</td>
<td>5,213</td>
<td>2,287</td>
</tr>
<tr>
<td>Changes in advance payments made</td>
<td>(14,175)</td>
<td>19,362</td>
</tr>
<tr>
<td>Changes in receivables, prepayments and deferred charges</td>
<td>(85,569)</td>
<td>63,517</td>
</tr>
<tr>
<td>Changes in short-term provisions and accruals</td>
<td>(5,837)</td>
<td>(21,476)</td>
</tr>
<tr>
<td>Changes in advance payments received</td>
<td>455</td>
<td>(36,874)</td>
</tr>
<tr>
<td>Changes in liabilities and deferred income</td>
<td>21,934</td>
<td>(29,821)</td>
</tr>
<tr>
<td><strong>Cash flow from operating activities</strong></td>
<td>4,599</td>
<td>75,836</td>
</tr>
<tr>
<td>Payments received for asset disposals</td>
<td>3,242</td>
<td>2,440</td>
</tr>
<tr>
<td>Payments made for investments in fixed tangible and intangible assets</td>
<td>(20,662)</td>
<td>(21,657)</td>
</tr>
<tr>
<td>Payments made for investments in financial assets</td>
<td>(167)</td>
<td>(1,338)</td>
</tr>
<tr>
<td>Cash flow due to purchase of minority interests and business acquisitions</td>
<td>(13,943)</td>
<td>(7,029)</td>
</tr>
<tr>
<td>Payments made for short-term financial investments *)</td>
<td>(24,076)</td>
<td>(11,493)</td>
</tr>
<tr>
<td><strong>Cash flow from investing activities</strong></td>
<td>(55,606)</td>
<td>(39,077)</td>
</tr>
<tr>
<td>Changes in interest bearing borrowings</td>
<td>(311)</td>
<td>56,482</td>
</tr>
<tr>
<td>Dividends paid by Andritz AG</td>
<td>(11,543)</td>
<td>(11,700)</td>
</tr>
<tr>
<td>Dividends paid to minority shareholders</td>
<td>(659)</td>
<td>(321)</td>
</tr>
<tr>
<td>Acquisition of own shares</td>
<td>(844)</td>
<td>(1,663)</td>
</tr>
<tr>
<td>Payments made by associated companies</td>
<td>27</td>
<td>409</td>
</tr>
<tr>
<td><strong>Cash flow from financing activities</strong></td>
<td>(13,330)</td>
<td>43,207</td>
</tr>
<tr>
<td>Change in cash and cash equivalents</td>
<td>(64,337)</td>
<td>79,966</td>
</tr>
<tr>
<td>Changes in cash and cash equivalents resulting from exchange rate fluctuations</td>
<td>(2,916)</td>
<td>(9,672)</td>
</tr>
<tr>
<td>*<em>Cash and cash equivalents at the beginning of the period <em>)</em></em></td>
<td>188,129</td>
<td>117,835</td>
</tr>
<tr>
<td>*<em>Cash and cash equivalents at the end of the period <em>)</em></em></td>
<td>120,876</td>
<td>188,129</td>
</tr>
</tbody>
</table>

*) For the payments made for short-term financial investments a reclassification from Cash and Cash Equivalents was made.

The following notes to the consolidated financial statements form an integral part of this consolidated cash flow statement.
## CONSOLIDATED STATEMENT OF SHAREHOLDERS’ EQUITY

The following notes to the consolidated financial statements form an integral part of this consolidated statement of shareholders’ equity.

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>Notes</th>
<th>Share capital</th>
<th>Capital reserves</th>
<th>Retained earnings</th>
<th>IAS 39 reserve</th>
<th>Currency translation adjustments</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status as at 1 January 2002</strong></td>
<td>94,510</td>
<td>45,966</td>
<td>71,046</td>
<td>(1,870)</td>
<td>20,678</td>
<td></td>
<td>230,330</td>
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<tr>
<td>Net income excluding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>minority interests</td>
<td></td>
<td>26,458</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26,458</td>
</tr>
<tr>
<td>Dividend payments</td>
<td></td>
<td>(11,700)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(11,700)</td>
</tr>
<tr>
<td>Currency translation adjustments</td>
<td></td>
<td></td>
<td>(30,735)</td>
<td></td>
<td></td>
<td></td>
<td>(30,735)</td>
</tr>
<tr>
<td>Acquisition of own shares</td>
<td></td>
<td>(1,663)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1,663)</td>
</tr>
<tr>
<td>Changes to IAS 39 reserve</td>
<td></td>
<td></td>
<td>10,471</td>
<td></td>
<td></td>
<td></td>
<td>10,471</td>
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<tr>
<td>Other changes</td>
<td></td>
<td>(224)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(224)</td>
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<tr>
<td><strong>Status as at 31 December 2002</strong></td>
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<td>45,966</td>
<td>83,917</td>
<td>8,601</td>
<td>(10,057)</td>
<td></td>
<td>222,937</td>
</tr>
<tr>
<td><strong>Status as at 1 January 2003</strong></td>
<td>94,510</td>
<td>45,966</td>
<td>83,917</td>
<td>8,601</td>
<td>(10,057)</td>
<td></td>
<td>222,937</td>
</tr>
<tr>
<td>Net income excluding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>minority interests</td>
<td></td>
<td>29,128</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29,128</td>
</tr>
<tr>
<td>Dividend payments</td>
<td>8.</td>
<td>(11,543)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(11,543)</td>
</tr>
<tr>
<td>Currency translation adjustments</td>
<td>8.</td>
<td></td>
<td>(17,617)</td>
<td></td>
<td></td>
<td></td>
<td>(17,617)</td>
</tr>
<tr>
<td>Acquisition of own shares</td>
<td></td>
<td>(331)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(331)</td>
</tr>
<tr>
<td>Changes to IAS 39 reserve</td>
<td></td>
<td></td>
<td>9,910</td>
<td></td>
<td></td>
<td></td>
<td>9,910</td>
</tr>
<tr>
<td><strong>Status as at 31 December 2003</strong></td>
<td>94,510</td>
<td>45,966</td>
<td>101,171</td>
<td>18,511</td>
<td>(27,674)</td>
<td></td>
<td>232,484</td>
</tr>
</tbody>
</table>
A. GENERAL

Andritz AG („Andritz“) is incorporated under the laws of the Republic of Austria and is listed on the Vienna Stock Exchange since June 2001. The Andritz Group (the „Group“) is a leading producer of high technology industrial machinery and operates in four main strategic business areas: Pulp and Paper, Rolling Mills and Strip Processing Lines, Environment and Process and Feed Technology.

The average number of employees in the Group was 4,597 in 2003 and 4,497 in 2002. The registered office address of the Group is located at Stattegger Strasse 18, 8045 Graz, Austria.

The consolidated financial statements are the responsibility of the management and will be acknowledged by the Supervisory Board.

Various amounts and percentages set out in these consolidated financial statements have been rounded and accordingly may not total.

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies adopted in preparing the financial statements of Andritz are as follows:

a. General

The accompanying financial statements are prepared in accordance with the standards formulated by the International Accounting Standards Board (IASB). The accompanying financial statements have been prepared under the historical cost convention, except for marketable securities which are stated at their fair values. For these financial statements prepared in accordance with IFRS based on §245a of Austrian Commercial Code the legal requirements are met for the exemption of the obligation of preparing group financial statements.

b. Reporting Currency

The Group financial statements are prepared in EURO.

c. Principles of Consolidation

The consolidated financial statements of the Group include Andritz and the companies that it controls. This control is normally evidenced when Andritz owns, either directly or indirectly, more than 50% of the voting rights of a company’s share capital and is able to govern the financial and operating policies of an enterprise so as to benefit from its activities. The equity and net income attributable to minority shareholders’ interests are shown separately in the balance sheets and income statements, respectively.

The purchase method of accounting is used for acquired businesses. Companies acquired or disposed of during the year are included or excluded, accordingly, in the consolidated financial statements from the date of acquisition or from the date of disposal. Joint Ventures with equal voting rights are consolidated on a proportionate basis.
d. Major Differences between Austrian and IFRS Accounting Principles

**Goodwill:** In accordance with IAS 22, goodwill from capital consolidation is capitalized and amortized over the useful life. The Austrian Commercial Code allows a credit to reserves, with no effect on the income statement.

**Construction contracts:** According to Austrian accounting regulations, sales and profits are first realised upon takeover by the customer (completed contract method). Under IAS 11, order completion is accounted using the percentage of completion method in accordance with progress and pro rata profit realisation. The extent of completion is established by considering the ratio of accumulated costs to estimated total costs to complete each contract (cost-to-cost method).

**Deferred taxes:** The Austrian Commercial Code requires the creation of deferred tax provisions for temporary differences if a tax liability is expected to arise when these differences are reversed. IFRS require the creation of deferred taxes for all temporary differences which arise between financial statements prepared for tax purposes and IFRS financial statements, measured at actual or enacted tax rates. Deferred tax assets must also be recorded for unused loss carry forwards and unused tax credits which are expected to be offset against taxable profits in the future.

**Other provisions:** In contrast to the Austrian Commercial Code, IFRS interprets the principle of prudence differently with respect to provisions. IFRS tends to place stricter requirements on the probability of an event occurring and on estimating the amount of the provisions. According to Austrian Commercial Code certain amounts reported as liabilities under IFRS would be normally shown as provisions.

**Provisions for pensions:** In keeping with the Austrian Commercial Code, provisions for pensions are calculated by an actuary. Under IFRS, provisions for pensions are calculated using the projected unit credit method, based on a discount rate determined by reference to market yields on high quality corporate bonds and an expected compensation increase.

**Marketable securities:** Austrian accounting principles require securities to be recorded at the lower of acquisition costs or market value. Under IFRS marketable securities available for sale are to be valued at fair values, and there is a choice for the treatment of changes in the fair value.

**Foreign currency transactions:** These two accounting systems require different treatments for unrealized profits arising from the valuation of foreign exchange items as of the balance sheet date. According to Austrian law, only unrealized losses are recorded, whereas IFRS also requires the recognition of unrealized profits of monetary items.

**Non-current securities:** In accordance with IFRS non-current securities of the Group are classified as „available for sale“ and are valued at their quoted market price at the balance sheet date. The Austrian Commercial Code requires a valuation at acquisition costs or a lower market value if there is a sustainable decrease of monetary items.

**Hedging:** With the adoption of IAS 39, the Group has designated its forward exchange contracts as cash flow hedges and carries them at fair value. Changes in the fair value of a hedging instrument that qualifies as a highly effective cash-flow hedge are recognised directly in the hedging reserve in shareholders’ equity. The Austrian Commercial Code does not require a valuation of hedging contracts at fair value as of the balance sheet date.

e. Changes in Presentation of Balance Sheet Items

Provisions concerning order related costs have been reclassified from provisions to other liabilities in 2003. For comparison reasons prior year figures have been adopted accordingly.
C. ACQUISITIONS AND OTHER CHANGES IN SCOPE OF CONSOLIDATION

In January 2003, the Company acquired IDEAS, previously AMEC Technologies Inc., a specialist in process simulation for the pulp and paper industry. And in March 2003, it acquired Acutest, a provider of monitoring technology and preventative and maintenance safety services for process machinery. In September 2003, the Company acquired Heinrich Fiedler Group headquartered in Germany. Fiedler develops and manufactures screen baskets, rotors, pressure screens and cleaners for the pulp and paper industry. For these three acquisitions a total purchase price of EUR 15,038 thousand has been paid, the related goodwill amounted to EUR 7,688 thousand. The described acquisitions are all part of the pulp and paper segment.

The remaining 24.5% of shares of Thermtec Holding B.V., Netherlands were acquired in June 2003 for a purchase price of EUR 1,238 thousand. Thermtec has already been fully consolidated in the last years. Therefore the minority interests have been reduced by EUR 248 thousand and the difference to the purchase price of EUR 990 thousand has been shown as goodwill.

Inter-company balances and transactions, including inter-company profits and unrealised profits and losses have been eliminated. The consolidated financial statements have been prepared using uniform accounting policies for like transactions and other events in similar circumstances.

D. ACCOUNTING AND VALUATION PRINCIPLES

a. Intangible Assets

Intangible assets are accounted for at acquisition cost. After initial recognition, intangible assets are accounted for at cost less accumulated amortization and any accumulated impairment losses. Intangible assets are amortised on a straight-line basis over the best estimate of their useful lives. The amortisation period and the amortisation method are reviewed annually at each financial year-end.

Concessions, industrial rights and similar rights and values
Amounts paid for concessions, industrial rights and similar rights and values are capitalised and then amortised on a straight-line basis over the expected periods of benefit. The expected useful lives vary from 3 to 15 years.

Goodwill
The excess of the cost of an acquisition over the Company’s interest in the fair value of the net identifiable assets and liabilities acquired as at the date of the exchange transaction is recorded as goodwill and recognised as an asset in the balance sheet. Goodwill is carried at cost less accumulated amortisation and accumulated impairment losses. Goodwill is amortised on a straight-line basis over its useful life.

The amortisation period is determined at the time of the acquisition based upon the particular circumstances and ranges from 7 to 15 years. The unamortised balances are reviewed at each balance sheet date by assessing the probability of continuing future benefits. If there is an indication that goodwill may be impaired, the recoverable amount is determined for the cash-generating unit to which the goodwill belongs. If the carrying amount is higher than the recoverable amount, an impairment loss is recognised. Goodwill and negative goodwill arising from business combinations before 1 January 1995 were written off against reserves.
b. Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment losses. When assets are sold or retired, their cost and accumulated depreciation are eliminated from the accounts and any gain or loss resulting from their disposal is included in the income statement.

The initial cost of property, plant and equipment comprises its purchase price, including import duties and non-refundable purchase taxes and any directly attributable costs of bringing the asset to its working condition and location for its intended use. Expenditures incurred after the fixed assets have been put into operation, such as repairs and maintenance and overhaul costs, are normally charged to income in the period in which the costs are incurred. Depreciation is calculated on a straight-line basis over the following estimated useful lives:

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Useful Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildings</td>
<td>20-50 years</td>
</tr>
<tr>
<td>Machinery and technical equipment</td>
<td>4-10 years</td>
</tr>
<tr>
<td>Tools, office equipment and vehicles</td>
<td>3-10 years</td>
</tr>
</tbody>
</table>

The useful life and depreciation methods are reviewed periodically to ensure that the method and period of depreciation are consistent with the expected pattern of economic benefits from items of property, plant and equipment. Assets in the course of construction represent plant and properties under construction and are stated at cost. These include costs of construction, plant and equipment and other direct costs.

c. Financial Assets and Investments in Associated Companies

These long-term investments consist primarily of shares in associated companies and non-current securities. Investments in associated companies (generally investments of between 20% to 50% in a company’s equity) where a significant influence is exercised by the Group are accounted for by using the equity method. An assessment of investments in associates is performed when there is an indication that the asset has been impaired or the impairment losses recognised in prior years no longer exist.

Other non-current securities held on a long-term basis are classified as available-for-sale investments and valued at fair value. Changes of these fair values are recognised as gains or losses in the income statement.

d. Finished Goods, Work in Progress, Raw Materials

Inventories, including work in progress, are valued at the lower of cost and net realisable value, after provision for obsolete and slow moving items. Net realisable value is the selling price in the ordinary course of business, less the costs of completion, marketing and distribution. Cost is determined primarily on the basis of the FIFO method. For processed inventories, cost includes the applicable allocation of fixed and variable overhead costs. Unrealisable inventory has been fully written off. Contracts other than construction contracts are valued at production costs. For these contracts the revenue is recognised when the ownership of the goods is transferred („completed contract method“).
e. Construction Contracts

Receivables from construction contracts and the related sales are accounted for using the percentage of completion method. The construction contracts are determined by the terms of the individual contract, which are agreed at fixed prices. The extent of completion ("stage of completion") is established by the cost-to-cost method. Reliable estimates of the total costs and sales prices and the actual figures of the accumulated costs are available on a monthly basis. Estimated contract profits are recorded in earnings in proportion of recorded sales. In cost-to-cost method sales and profits are recorded after considering the ratio of accumulated costs to estimated total costs to complete each contract. Changes to total estimated contract costs and losses, if any, are recognised in the income statement of the period in which they are determined. For remaining technological and financial risks which might occur during the remaining construction period, an individually assessed amount is included in the estimated contract costs. Impending losses out of the valuation of construction contracts are recognised at the time of occurrence. Impending losses are recognised when it is probable that the total contract costs will exceed the contract revenues. For possible customer warranty claims provisions are accounted for according to the profit realisation. At the completion of a contract the remaining warranty risk is reassessed.

f. Trade Accounts Receivable

Receivables are stated at face value, after allowances for doubtful accounts.

g. Marketable Securities

Marketable securities consist of governmental bonds and bonds of first-class banks that are traded in liquid markets. They are held for the purpose of investing in liquid funds and are not generally intended to be retained on a long-term basis. Marketable securities are stated at the market value. Adjustments in valuation are included in the income statement. Interest received on trading securities is reported as interest income. On a disposal of an investment, the difference between the net disposal proceeds and the carrying amount is included in the income statement.

h. Cash and Cash Equivalents

Cash includes cash in hand and cash with banks. Cash equivalents might include short-term deposits with non-banks with original maturities of three months or less and that are not subject to any risk of change in value.

i. Share Capital

Only ordinary shares exist and all shares are issued and have the same rights.

At the extraordinary shareholders’ meeting of the Company held on 6 September 2000 the shareholders resolved to authorize the Managing Board to increase the nominal value of the Company’s share capital with prior approval of the Supervisory Board by an amount of up to EUR 36,350,000 through the issue of up to 5,000,000 shares in bearer or registered form and for a contribution in cash or in kind. This increase has been authorized for a maximum of five years from the registration of the amendment to the Articles of Association in the commercial register which took place on 19 September 2000. Out of this authorization Andritz issued 1,000,000 shares at the end of 2000. For these shares an amount of EUR 27.0 million was paid by the shareholders (thereof EUR 24.8 million before 31 December 2000). This increase was registered in the commercial register on 26 January 2001.

At the 94th ordinary shareholders’ meeting held on 19 March 2001 the shareholders resolved to authorize the Managing Board to increase the nominal value of the Company’s share capital with prior approval of the Supervisory Board by
a further amount of up to EUR 10,905,000 through the issue of up to 1,500,000 shares in bearer form and for contribution in cash or kind, so that authorized capital was increased to EUR 39,985,000 or 5,500,000 shares respectively.

In the course of the Company’s IPO out of this authorization Andritz issued 2,000,000 shares in June 2001, the issue price was fixed at EUR 21 per share. This increase was registered in the commercial register on 23 June 2001.

Consequently the share capital amounts to EUR 94,510,000 divided into 13,000,000 shares of non par value.

Based on the authorization of the shareholders’ meeting and with approval from the Supervisory Board the Managing Board has decided a program for acquisition of own shares up to 650,000 shares between 16 May 2002 and 27 June 2003 within a price range of 10 to 35 Euro per share and extension of this program for acquisition of own shares up to 650,000 shares between 28 June 2003 and 27 June 2004 within a price range of 10 to 30 Euro, limited to a total volume of 845,000 own shares. Until 31 December 2002 76,897 own shares have been acquired in several steps with an average price of 21.62 Euro per share. In 2003 128,701 own shares have been acquired in several steps with an average price of 22.75 Euro per share and 94,600 own shares were resold in several steps with an average price of 27.44 Euro per share. 50 own shares were used as a price in a lottery. At 31 December 2003 the Company held 110,948 own shares at a market value of EUR 4,210 thousand. It is planned to use these shares for delivery of shares within the framework of the Management Share Option Plan.

j. Capital Reserves

Capital Reserves are created in accordance with Austrian requirements and include share premium amounts.

k. Provisions

A provision is recognised when, and only when, an enterprise has a present obligation (legal or constructive) as a result of a past event and it is probable (i.e. more likely than not) that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. Provisions are reviewed at each balance sheet date and adjusted to reflect the current best estimate. Where the effect of the time value of money is material, the amount of a provision is the present value of the expenditures expected to be required to settle the obligation.

l. Other Accounting and Valuation Principles

Financial instruments

Financial assets and financial liabilities carried on the balance sheet include cash and cash equivalents, marketable securities, trade and other accounts receivable and payable, long-term receivables, borrowings and investments. The accounting policies on recognition and measurement of these items are disclosed in the respective accounting policies found in these notes.

Financial instruments are classified as assets or liabilities in accordance with the substance of the contractual arrangement. Therefore interest, dividends, gains and losses relating to these financial instruments classified as an asset or a liability are reported as expense or income. Financial instruments are offset when the Group has a legally enforceable right to offset and intends to settle either on a net basis or to realise the asset and settle the liability simultaneously.
Hedging
The Group uses forward exchange contracts to mitigate exposure to foreign currency risk out of projects and regularly business in foreign currency. According to the Group’s hedging policy most forward contracts are used for highly probable future Cash flows for these projects or regularly sales and can therefore be classified as cash flow hedges. Changes in the fair value of a hedging instrument that qualifies as a highly effective cash-flow hedge are recognised directly in the hedging reserve in shareholders’ equity. If the hedged cash flow results in the recognition of an asset or a liability, all gains or losses previously recognised directly in equity are transferred from equity and included in the initial measurement of the cost or carrying value of the asset or liability. Otherwise, for all other cash-flow hedges, gains and losses initially recognised in equity are transferred from hedging reserve to net profit or loss in the same period or periods during which the hedged firm commitment or forecast transaction affects the income statement. If a forward exchange contract is not classified as cash flow hedge the fair values of these contracts are reported as profit or loss in the income statement.

When the committed or forecast transaction is no longer expected to occur, any net cumulative gain or loss previously reported in equity is transferred to the income statement.

All investments in a foreign entity are long-term investments and presently a sale of such investments is not expected to occur in the foreseeable future. According to the Group’s hedging policy there are no hedges of net investments in foreign currencies.

Derivative financial instruments
Major part of derivative financial instruments are designated as hedging instruments. Fixed forward exchange rate contracts are used for hedging of currency risks and interest swaps are used for hedging of interest risk.

Research and development costs
Expenditures for research and development are charged against income in the period incurred because the criteria for capitalisation (IAS 38) are not met. In 2003 EUR 25,470 thousand and in 2002 EUR 30,135 thousand have been recognised as an expense.

Revenue recognition (except for construction contracts)
Revenue is recognised when it is probable that the economic benefits associated with the transaction will flow to the enterprise and the amount of the revenue can be measured reliably. Sales are recognised net of sales taxes and discounts when delivery has taken place and transfer of risks and rewards has been completed.

Interest is recognised on a time proportion basis that reflects the effective interest rate of the asset. Dividends are recognised when the shareholders’ right to receive payment is established.

Borrowing costs
Borrowing costs are generally expensed as incurred.

Impairment of assets
Property, plant and equipment and intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Whenever the carrying amount of an asset exceeds its recoverable amount, an impairment loss is recognised in income for items of property, plant and equipment and intangibles carried at cost. Recoverable amounts are estimated for individual assets or, if it is not possible, for the cash-generating unit.
m. Foreign Currency

Foreign currency transactions
Foreign currency transactions are recorded in the reporting currency by applying to the foreign currency amount the exchange rate between the reporting currency and the foreign currency at the date of the transaction. Exchange rate differences arising on the settlement of monetary items at rates different from those at which they were initially recorded during the periods are recognised in the income statement in the period in which they arise.

Foreign entities
Foreign consolidated subsidiaries are regarded as foreign entities since they are financially, economically and organisationally autonomous. Their reporting currencies are their respective local currencies. Financial statements of foreign consolidated subsidiaries are translated at year-end exchange rates with respect to the balance sheet. Expense and revenue items are translated using the average exchange rates for the year. All resulting translation differences are included in a currency translation reserve in equity.

Any goodwill arising on the acquisition of a foreign entity is recorded using the exchange rate at the effective date of the transaction. Exchange differences arising on a monetary item that, in substance, forms part of the Group’s net investment in a foreign entity are classified as equity in the consolidated financial statements until disposal of the net investment.

n. Employee Benefits

Defined benefit plans (provisions for pensions)
Some Group companies provide defined benefit pension plans for certain employees. The funds are valued every year by professionally qualified independent actuaries. The obligation and costs of pension benefits are determined using a projected unit credit method. The projected unit credit method considers each period of service as giving rise to an additional unit of benefit entitlement and measures each unit separately to build up the final obligation. Past service costs are recognised on a straight-line basis over the average period until the amended benefits become vested. Gains or losses on the curtailment or settlement of pension benefits are recognised when the curtailment or settlement occurs. Actuarial gains or losses are amortised based on the expected average remaining working lives of the employees. The pension obligation is measured at the present value of estimated future cash flows using different discount rates for different countries.

Other Group companies provide defined contribution plans for certain employees. The related costs are expensed as they occur.

Severance payments
In certain countries the Group is also obliged by law to pay termination indemnities in some cases of termination of employment. No termination indemnities are payable for voluntary termination at the request of the employee. Expenses related to termination indemnities are accrued.

o. Income Taxes

The income tax charge is based on profit for the year and considers deferred taxation. Deferred taxes are calculated using the balance sheet liability method. Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Deferred tax assets and liabilities are measured using the tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled, based on tax rates (and tax
laws) that have been enacted or substantively enacted by the balance sheet date. The measurement of deferred tax liabilities and deferred tax assets reflects the tax consequences that would follow from the manner in which the enterprise expects, at the balance sheet date, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are recognised regardless of when the timing difference is likely to reverse.

Deferred tax assets are recognised when it is probable that sufficient taxable profits will be available against which the deferred tax assets can be utilised. At each balance sheet date, the Group reassesses unrecognised deferred tax assets and the carrying amount of deferred tax assets. The enterprise recognises a previously unrecognised deferred tax asset to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered. The Group conversely reduces the carrying amount of a deferred tax asset to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of that deferred tax asset to be utilised.

Deferred tax is charged or credited directly to equity if the tax relates to items that are credited or charged, in the same or a different period, directly to equity, including exchange differences arising on the translation of inter-company loans.

E. SEGMENENTS

Business segments
For management purposes the Group is organised on a worldwide basis into four major operating businesses. The strategic business units are the basis upon which the Group reports its primary segment information. Financial information on business and geographical segments is presented in section I (see „segment information” below). There are no material inter-segment transactions. All consolidation entries are included in the relevant segment. According to the monthly reporting scheme, which is the basis for the primary segment information, all sales and all direct and indirect expenses (including overhead and administrative costs) are allocated to business segments.

Net segmental assets consist of:

- intangible fixed assets, property, plant and equipment;
- current assets not including cash and cash equivalents and marketable securities; and
- liabilities not including interest bearing borrowings of each segment

F. CONTINGENCIES

Contingent liabilities are not recognised in the financial statements. They are disclosed unless the possibility of an outflow of resources embodying economic benefits is remote.

A contingent asset is not recognised in the financial statements but disclosed when an inflow of economic benefits is probable.
### G. NOTES TO THE BALANCE SHEET

#### 1. Changes in Fixed and Financial Assets

**Acquisition or production costs**

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>Balance as at 1 January 2003</th>
<th>Currency translation differences</th>
<th>Additions</th>
<th>Disposals</th>
<th>Changes due to business acquisitions</th>
<th>Transfers</th>
<th>Balance as at 31 December 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intangible assets</strong></td>
<td>26,995</td>
<td>(1,280)</td>
<td>1,106</td>
<td>2,128</td>
<td>198</td>
<td>(2)</td>
<td>24,889</td>
</tr>
<tr>
<td><strong>Goodwill</strong></td>
<td>244,215</td>
<td>(19,860)</td>
<td>1,587</td>
<td>0</td>
<td>7,587</td>
<td>(63)</td>
<td>233,466</td>
</tr>
<tr>
<td><strong>Land and buildings</strong></td>
<td>132,359</td>
<td>(4,518)</td>
<td>2,067</td>
<td>8,617</td>
<td>9,437</td>
<td>765</td>
<td>131,493</td>
</tr>
<tr>
<td><strong>Technical equipment</strong></td>
<td>140,453</td>
<td>(7,542)</td>
<td>7,350</td>
<td>9,683</td>
<td>2,769</td>
<td>2,751</td>
<td>136,098</td>
</tr>
<tr>
<td>and machinery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other equipment, factory</strong></td>
<td>66,515</td>
<td>(2,968)</td>
<td>8,068</td>
<td>7,766</td>
<td>1,068</td>
<td>(1,134)</td>
<td>63,783</td>
</tr>
<tr>
<td>and office equipment</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>173</td>
<td>(2,532)</td>
<td>1,951</td>
</tr>
<tr>
<td><strong>Assets in course of construction</strong></td>
<td>2,632</td>
<td>(180)</td>
<td>1,908</td>
<td>50</td>
<td>173</td>
<td>(2,532)</td>
<td>1,951</td>
</tr>
<tr>
<td><strong>Advance payments on</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tangible assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total property, plant</strong></td>
<td>342,194</td>
<td>(15,208)</td>
<td>19,443</td>
<td>26,351</td>
<td>13,447</td>
<td>(150)</td>
<td>333,375</td>
</tr>
<tr>
<td>and equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total fixed assets</strong></td>
<td>613,404</td>
<td>(36,348)</td>
<td>22,136</td>
<td>28,479</td>
<td>21,232</td>
<td>(215)</td>
<td>591,730</td>
</tr>
</tbody>
</table>

Andritz 2003
## Depreciation and amortisation

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>Balance as at 1 January 2003</th>
<th>Currency translation differences</th>
<th>Depreciation and amortisation for the year</th>
<th>Disposals</th>
<th>Changes due to business acquisitions</th>
<th>Transfers</th>
<th>Balance as at 31 December 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intangible assets</td>
<td>21,344</td>
<td>(1,165)</td>
<td>1,937</td>
<td>2,108</td>
<td>(56)</td>
<td>16</td>
<td>19,968</td>
</tr>
<tr>
<td>Goodwill</td>
<td>110,528</td>
<td>(14,048)</td>
<td>14,201</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>110,681</td>
</tr>
<tr>
<td>Land and buildings</td>
<td>61,640</td>
<td>(2,736)</td>
<td>3,967</td>
<td>7,095</td>
<td>0</td>
<td>504</td>
<td>56,280</td>
</tr>
<tr>
<td>Technical equipment and machinery</td>
<td>110,400</td>
<td>(5,735)</td>
<td>7,218</td>
<td>8,893</td>
<td>(58)</td>
<td>245</td>
<td>103,177</td>
</tr>
<tr>
<td>Other equipment, factory and office equipment</td>
<td>49,475</td>
<td>(2,536)</td>
<td>8,115</td>
<td>7,414</td>
<td>(22)</td>
<td>(865)</td>
<td>46,753</td>
</tr>
<tr>
<td>Assets in course of construction</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Advance payments on tangible assets</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total property, plant and equipment</td>
<td>221,515</td>
<td>(11,007)</td>
<td>19,300</td>
<td>23,402</td>
<td>(80)</td>
<td>(116)</td>
<td>206,210</td>
</tr>
<tr>
<td>Total fixed assets</td>
<td>353,387</td>
<td>(26,220)</td>
<td>35,438</td>
<td>25,510</td>
<td>(136)</td>
<td>(100)</td>
<td>336,859</td>
</tr>
</tbody>
</table>
In 2003 a reversal of impairment losses recognized in prior years of EUR 1,549 thousand was recorded.

Finance leases
The net book value for technical equipment and machinery includes an amount of EUR 1,426 thousand and the net book value for other equipment, factory and office equipment includes an amount of EUR 256 thousand in respect of assets held under finance lease. In 2002 no assets were held under finance lease. The total of minimum lease payments at balance sheet date amounts in EUR 1,555 thousand. The leasing contracts have remaining terms from 6 up to 61 months.
Goodwill

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andritz Ahlstrom</td>
<td>37,630</td>
<td>47,609</td>
</tr>
<tr>
<td>Acquisition of Andritz AG</td>
<td>65,555</td>
<td>71,515</td>
</tr>
<tr>
<td>Other</td>
<td>19,600</td>
<td>14,563</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>122,785</strong></td>
<td><strong>133,687</strong></td>
</tr>
</tbody>
</table>

2. Inventories

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finished goods</td>
<td>35,585</td>
<td>36,103</td>
</tr>
<tr>
<td>Work in progress</td>
<td>50,781</td>
<td>57,255</td>
</tr>
<tr>
<td>Raw materials</td>
<td>21,348</td>
<td>19,848</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>107,714</strong></td>
<td><strong>113,206</strong></td>
</tr>
</tbody>
</table>

The shown inventories are value at cost.

3. Advance Payments Made

The advance payments made and presented in the balance sheet relate to open purchase orders for contracts.

4. Trade Accounts Receivable

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts receivable</td>
<td>219,023</td>
<td>191,130</td>
</tr>
<tr>
<td>Allowance for doubtful accounts</td>
<td>(2,321)</td>
<td>(2,886)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>216,702</strong></td>
<td><strong>188,244</strong></td>
</tr>
</tbody>
</table>
5. Construction Contracts

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract revenue recognised as sales in the period</td>
<td>767,380</td>
<td>675,097</td>
</tr>
<tr>
<td>Contract costs incurred and recognised profits (less recognised losses) to date</td>
<td>1,063,683</td>
<td>902,772</td>
</tr>
<tr>
<td>Advances received and progress billings</td>
<td>1,063,344</td>
<td>954,853</td>
</tr>
<tr>
<td>Amount of retentions</td>
<td>1,242</td>
<td>1,118</td>
</tr>
</tbody>
</table>

The billings in excess of costs and earnings of projects under construction represent, primarily, payments from customers for work, which is not performed yet.

6. Other Receivables

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receivables from associated companies</td>
<td>410</td>
<td>122</td>
</tr>
<tr>
<td>Financial instruments not carried at fair value</td>
<td>31,581</td>
<td>13,106</td>
</tr>
<tr>
<td>Other</td>
<td>28,519</td>
<td>26,765</td>
</tr>
<tr>
<td></td>
<td><strong>60,510</strong></td>
<td><strong>39,993</strong></td>
</tr>
</tbody>
</table>

7. Statement of Receivables

2003

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>Total</th>
<th>Thereof remaining term under 1 year</th>
<th>Thereof remaining term over 1 year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade accounts receivable</td>
<td>216,702</td>
<td>216,672</td>
<td>30</td>
</tr>
<tr>
<td>Cost and earnings of projects under construction in excess of billings</td>
<td>107,738</td>
<td>107,738</td>
<td>0</td>
</tr>
<tr>
<td>Other receivables</td>
<td>60,510</td>
<td>59,418</td>
<td>1,092</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>384,950</strong></td>
<td><strong>383,828</strong></td>
<td><strong>1,122</strong></td>
</tr>
</tbody>
</table>

2002

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>Total</th>
<th>Thereof remaining term under 1 year</th>
<th>Thereof remaining term over 1 year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade accounts receivable</td>
<td>188,244</td>
<td>188,074</td>
<td>170</td>
</tr>
<tr>
<td>Cost and earnings of projects under construction in excess of billings</td>
<td>61,411</td>
<td>56,351</td>
<td>5,060</td>
</tr>
<tr>
<td>Other receivables</td>
<td>39,993</td>
<td>39,936</td>
<td>57</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>289,648</strong></td>
<td><strong>284,361</strong></td>
<td><strong>5,287</strong></td>
</tr>
</tbody>
</table>
8. Retained Earnings

Dividends
For 2003 a dividend of EUR 1.00 per outstanding share is proposed by the Managing Board. The dividend for 2002 of EUR 11,543 thousand which is equal to EUR 0.90 per share was proposed by the Managing Board and has been resolved at the 96th ordinary shareholders’ meeting on 8 April 2003. The dividend has been paid to the shareholders on 14 April 2003.

On 16 February 2004 the Managing Board authorised the consolidated financial statements for the year ended 31 December 2003 according to IFRS. On 17 February 2003 the management authorised the consolidated financial statements for the year ended 31 December 2002 according to IFRS to be issued to its Supervisory Board. The Supervisory Board is made up solely of non-executives and includes representatives of employees. The consolidated financial statements were presented for information purposes only to the Supervisory Board and subsequently acknowledged by the meeting of shareholders. The Supervisory Board and the meeting of shareholders acknowledged the consolidated financial statements.

Currency translation adjustment
Equity and shareholder loans in foreign currency are not hedged against currency risks because the investments are considered to be permanent and the conversion to the reporting currency is not planned. Exceptions are made for planned disposal of investments or planned repayments of shareholder loans. In 2003 a negative currency translation adjustment arose from investments in foreign currency amounting to EUR 17,617 thousand mainly due to the change of the currency exchange rate between Euro and Dollar compared to previous year. This currency translation adjustment has been directly recognized in equity without income effect.


<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>Balance as at 1 January 2003</th>
<th>Currency translation differences</th>
<th>Changes due to business acquisitions</th>
<th>Reclassification</th>
<th>Use</th>
<th>Reversal</th>
<th>Addition</th>
<th>Balance as at 31 December 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisions for severance payments</td>
<td>26,845</td>
<td>1</td>
<td>15</td>
<td>0</td>
<td>25</td>
<td>1,662</td>
<td>47</td>
<td>25,221</td>
</tr>
<tr>
<td>Provisions for pensions</td>
<td>18,621</td>
<td>(365)</td>
<td>1,074</td>
<td>(1,529)</td>
<td>107</td>
<td>222</td>
<td>11,121</td>
<td>28,593</td>
</tr>
<tr>
<td>Other non-current provisions</td>
<td>18,686</td>
<td>(615)</td>
<td>(10)</td>
<td>2,420</td>
<td>796</td>
<td>4,526</td>
<td>3,996</td>
<td>19,155</td>
</tr>
<tr>
<td>Non-current provisions</td>
<td>64,152</td>
<td>(979)</td>
<td>1,079</td>
<td>891</td>
<td>928</td>
<td>6,410</td>
<td>15,164</td>
<td>72,969</td>
</tr>
<tr>
<td>Current provisions</td>
<td>80,419</td>
<td>(2,193)</td>
<td>5,026</td>
<td>(916)</td>
<td>22,627</td>
<td>18,575</td>
<td>36,325</td>
<td>77,459</td>
</tr>
</tbody>
</table>

Other non-current and current provisions consist primarily of order related provisions (2003: EUR 80,004 thousand; 2002: EUR 78,882 thousand) for warranties, contingencies and impending losses.
10. Employee Benefit Obligations

Defined benefit plan for pensions
Some Group companies in Austria, USA, Finland, Germany and Sweden provide defined benefit pension plans for some classes of employees. Provisions for pension obligations are established for benefits payable in the form of retirement, disability and surviving dependant pensions. The benefits offered vary according to the legal, fiscal and economic conditions of each country. Benefits are dependent on years of service and in some cases on the respective employee’s compensation.

The following table reconciles the funded status of defined benefit plans to the amounts recognised in the balance sheet:

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present value of funded defined benefit obligations</td>
<td>22,087</td>
<td>16,562</td>
</tr>
<tr>
<td>Fair value of plan assets</td>
<td>(8,266)</td>
<td>(398)</td>
</tr>
<tr>
<td></td>
<td>13,821</td>
<td>16,164</td>
</tr>
<tr>
<td>Present value of unfunded defined benefit obligations</td>
<td>16,516</td>
<td>4,125</td>
</tr>
<tr>
<td>Unrecognised actuarial gains/losses</td>
<td>(1,744)</td>
<td>(1,668)</td>
</tr>
<tr>
<td><strong>Net liability in balance sheet</strong></td>
<td><strong>28,593</strong></td>
<td><strong>18,621</strong></td>
</tr>
</tbody>
</table>

Pension expense is comprised of the following:

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current service costs</td>
<td>965</td>
<td>1,251</td>
</tr>
<tr>
<td>Interest expense on obligations</td>
<td>886</td>
<td>902</td>
</tr>
<tr>
<td>Expected return on plan assets</td>
<td>(7)</td>
<td>(7)</td>
</tr>
<tr>
<td>Net actuarial gains/losses recognised</td>
<td>(143)</td>
<td>126</td>
</tr>
<tr>
<td>Past service costs</td>
<td>7,720</td>
<td>26</td>
</tr>
<tr>
<td>Effect of any curtailment or settlement</td>
<td>(10)</td>
<td>858</td>
</tr>
<tr>
<td>Payments to defined contribution plans</td>
<td>12,755</td>
<td>12,843</td>
</tr>
<tr>
<td><strong>Total pension expense</strong></td>
<td><strong>22,166</strong></td>
<td><strong>15,999</strong></td>
</tr>
</tbody>
</table>

Past service costs result from recognition of the risk relating to general social insurance (mainly disability insurance) in Finland as a defined benefit obligation in 2003.
Principal actuarial assumptions used to determine pension obligations as of 31 December were as follows:

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount rate</td>
<td>5.75%</td>
<td>5.75%</td>
</tr>
<tr>
<td>Wage and salary increases</td>
<td>3.00%</td>
<td>3.00%</td>
</tr>
<tr>
<td>Retirement benefit increases</td>
<td>2.50%</td>
<td>2.50%</td>
</tr>
</tbody>
</table>

**Severance payments**

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present value of unfunded defined benefit obligations</td>
<td>25,221</td>
<td>26,845</td>
</tr>
<tr>
<td><strong>Net liability in balance sheet</strong></td>
<td><strong>25,221</strong></td>
<td><strong>26,845</strong></td>
</tr>
</tbody>
</table>

Severance expense is comprised of the following:

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current service costs</td>
<td>1,473</td>
<td>1,105</td>
</tr>
<tr>
<td>Interest expense on obligations</td>
<td>1,466</td>
<td>1,433</td>
</tr>
<tr>
<td>Net actuarial gains/losses recognised</td>
<td>(2,354)</td>
<td>2,784</td>
</tr>
<tr>
<td></td>
<td>585</td>
<td>5,322</td>
</tr>
<tr>
<td>Payments to defined contribution plans</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>606</strong></td>
<td><strong>5,322</strong></td>
</tr>
</tbody>
</table>

Principal actuarial assumptions used to determine severance obligations as of 31 December were the same as used for pension obligations.
Management share option plan
A selected group of executives employed by the Group as at 1 June 2001 were eligible to participate in a Management Share Option Plan in connection with the Initial Public Offering. Each eligible executive who has subscribed shares having an aggregate subscription value calculated at the Offer Price (21 EUR per share) of at least 20,000 EUR (each such subscription a "Private Investment") is eligible for a special remuneration in the form of option rights. These option rights can be exercised provided that the average price of the shares during two separate assessment periods exceeds a certain percentage of the Offer Price. The first assessment period will run for a period of three months preceding the second anniversary of the initial listing of the shares on the Vienna Stock Exchange, whereas the second assessment period will run for a period of three months preceding the third anniversary of the initial listing of the shares on the Vienna Stock Exchange. If the average market value of the shares exceeds the Offer Price by 15% in the first assessment period (Option 1) or by 20% in the second assessment period (Option 2), the eligible executive will be entitled to purchase up to a maximum of 1,500, 2,500 and 5,000 shares with respect to Option 1 or Option 2 at the Offer Price depending on the seniority of the relevant executive, provided that the relevant executive can prove uninterrupted ownership of his Private Investment until the end of the assessment period. The options can be exercised only once and are not transferable. Option 2 can only be exercised if during the first assessment period the average market value of the shares does not exceed the Offer Price by 15%, making the exercise of Option 1 impossible. The options can only be exercised at given times. Each participant may subscribe up to 50% of the number of shares stated in the Average Price Notice immediately after exercise of the option and payment of the pro-rata subscription price, the relevant participant can subscribe up to the remaining 25% of the shares set out in the notice on the exercise of the option. At the end of a six-month term from the exercise of the option and payment of the remaining subscription price, the relevant participant can subscribe up to the remaining 25% of the shares set out in the notice on the exercise of the option.

Due to legal requirements, executives in the United States will not be allowed to make a Private Investment but will be granted option rights. 33 executives are participating in the Management Share Option Plan, together they are eligible to exercise options for the purchase of 105,500 shares. Andritz intends to provide these shares by using the repurchased own shares. The difference between the repurchase price of the own shares and the option price of a total amount of EUR 176 thousand has been reported as expense in the current year.
11. Non-Current Liabilities

2003

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>Remaining term between 1 and 5 years</th>
<th>Remaining term over 5 years</th>
<th>Total non-current liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonds</td>
<td>100,000</td>
<td>0</td>
<td>100,000</td>
</tr>
<tr>
<td>Bank loans</td>
<td>1,919</td>
<td>2,567</td>
<td>4,486</td>
</tr>
<tr>
<td>Obligations under finance lease</td>
<td>919</td>
<td>0</td>
<td>919</td>
</tr>
<tr>
<td>Total</td>
<td>102,838</td>
<td>2,567</td>
<td>105,405</td>
</tr>
<tr>
<td>Provisions non-current</td>
<td></td>
<td></td>
<td>72,969</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>178,374</strong></td>
</tr>
</tbody>
</table>

2002

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>Remaining term between 1 and 5 years</th>
<th>Remaining term over 5 years</th>
<th>Total non-current liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonds</td>
<td>0</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Bank loans</td>
<td>610</td>
<td>0</td>
<td>610</td>
</tr>
<tr>
<td>Provisions non-current</td>
<td></td>
<td></td>
<td>64,152</td>
</tr>
<tr>
<td>Total</td>
<td>610</td>
<td>100,000</td>
<td><strong>164,762</strong></td>
</tr>
</tbody>
</table>

The interest bearing borrowings consist primarily of current bank loans at floating interest rates and fixed rates.

Property, plant and equipment amounting to EUR 17,781 thousand and EUR 375 thousand as at 31 December 2003 and 2002, respectively, has been pledged as security for long-term debt.

12. Other Liabilities

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payables to associated companies</td>
<td>297</td>
<td>42</td>
</tr>
<tr>
<td>Other personnel related costs</td>
<td>40,164</td>
<td>31,538</td>
</tr>
<tr>
<td>Other order related costs</td>
<td>51,726</td>
<td>55,336</td>
</tr>
<tr>
<td>Deferred income</td>
<td>1,093</td>
<td>875</td>
</tr>
<tr>
<td>Other</td>
<td>55,601</td>
<td>60,772</td>
</tr>
<tr>
<td>Total</td>
<td><strong>148,881</strong></td>
<td><strong>148,563</strong></td>
</tr>
</tbody>
</table>
### 13. Sales

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract revenue recognised as sales in the period</td>
<td>767,380</td>
<td>675,097</td>
</tr>
<tr>
<td>Other</td>
<td>457,610</td>
<td>435,013</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,224,990</td>
<td>1,110,110</td>
</tr>
</tbody>
</table>

### 14. Other Operating Income

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit on disposal of fixed assets excluding financial assets</td>
<td>371</td>
<td>502</td>
</tr>
<tr>
<td>Exchange rate gains</td>
<td>9,919</td>
<td>8,411</td>
</tr>
<tr>
<td>Rental income</td>
<td>1,584</td>
<td>1,303</td>
</tr>
<tr>
<td>Other</td>
<td>8,225</td>
<td>5,957</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>20,099</td>
<td>16,173</td>
</tr>
</tbody>
</table>

### 15. Personnel Expenses

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages</td>
<td>53,516</td>
<td>51,215</td>
</tr>
<tr>
<td>Salaries</td>
<td>181,676</td>
<td>173,478</td>
</tr>
<tr>
<td>Pension expenses</td>
<td>22,166</td>
<td>15,999</td>
</tr>
<tr>
<td>Severance expenses</td>
<td>606</td>
<td>5,322</td>
</tr>
<tr>
<td>Social security and payroll related duties</td>
<td>35,171</td>
<td>31,549</td>
</tr>
<tr>
<td>Other social payments</td>
<td>11,662</td>
<td>9,753</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>304,797</td>
<td>287,316</td>
</tr>
</tbody>
</table>

### 16. Other Operating Expenses

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange rate losses</td>
<td>6,647</td>
<td>7,706</td>
</tr>
<tr>
<td>Sales expenses</td>
<td>76,740</td>
<td>71,823</td>
</tr>
<tr>
<td>Administration expenses</td>
<td>23,877</td>
<td>19,996</td>
</tr>
<tr>
<td>Other</td>
<td>69,164</td>
<td>41,120</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>176,428</td>
<td>140,645</td>
</tr>
</tbody>
</table>
17. Financial Results

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income / expenses from associated companies</td>
<td>(419)</td>
<td>(46)</td>
</tr>
<tr>
<td>Other interest and similar income</td>
<td>6,469</td>
<td>6,996</td>
</tr>
<tr>
<td>Interest and similar expenses</td>
<td>(5,463)</td>
<td>(6,675)</td>
</tr>
<tr>
<td>Interest result</td>
<td>1,006</td>
<td>321</td>
</tr>
<tr>
<td>Income / expenses from investments</td>
<td>95</td>
<td>138</td>
</tr>
<tr>
<td>Impairment losses of financial assets</td>
<td>(31)</td>
<td>(195)</td>
</tr>
<tr>
<td>Income from write-ups of financial assets</td>
<td>114</td>
<td>79</td>
</tr>
<tr>
<td>Profit on disposal of short-term securities</td>
<td>(43)</td>
<td>0</td>
</tr>
<tr>
<td>Adjustment to market value of short-term securities</td>
<td>(336)</td>
<td>172</td>
</tr>
<tr>
<td>Other income / expenses from financing activities</td>
<td>(201)</td>
<td>194</td>
</tr>
<tr>
<td></td>
<td>386</td>
<td>469</td>
</tr>
</tbody>
</table>

18. Income Taxes

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current tax expense</td>
<td>(20,810)</td>
<td>(15,078)</td>
</tr>
<tr>
<td>Deferred tax income relating to the origination and reversal of temporary differences</td>
<td>2,009</td>
<td>(3,010)</td>
</tr>
<tr>
<td></td>
<td>(18,801)</td>
<td>(18,088)</td>
</tr>
</tbody>
</table>

Changes in the deferred income tax account consist of the following:

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax assets</td>
<td>17,696</td>
<td>21,114</td>
</tr>
<tr>
<td>Tax provision for deferred taxes</td>
<td>(45,803)</td>
<td>(39,605)</td>
</tr>
<tr>
<td>Balance as at 31 December, as previously stated</td>
<td>(28,107)</td>
<td>(18,491)</td>
</tr>
<tr>
<td>Deferred taxes from changes in consolidation range</td>
<td>1,090</td>
<td>0</td>
</tr>
<tr>
<td>Deferred tax expense relating to the origination and reversal of temporary differences</td>
<td>2,009</td>
<td>(3,010)</td>
</tr>
<tr>
<td>income statement charge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>foreign exchange differences</td>
<td>(2,564)</td>
<td>(2,938)</td>
</tr>
<tr>
<td>Tax effect on IAS 39 reserve</td>
<td>(5,088)</td>
<td>(5,394)</td>
</tr>
<tr>
<td>Tax effect of foreign exchange translation differences</td>
<td>990</td>
<td>2,298</td>
</tr>
<tr>
<td>Reclassification without income effect</td>
<td>0</td>
<td>(572)</td>
</tr>
<tr>
<td></td>
<td>(31,670)</td>
<td>(28,107)</td>
</tr>
<tr>
<td>thereof</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred tax assets</td>
<td>18,876</td>
<td>17,696</td>
</tr>
<tr>
<td>Liabilities for deferred taxes</td>
<td>(50,546)</td>
<td>(45,803)</td>
</tr>
</tbody>
</table>
The reconciliation of the effective tax rate to the statutory tax rate is as follows:

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings before taxes (EBT)</td>
<td>49,318</td>
<td>45,735</td>
</tr>
<tr>
<td>Tax at the applicable tax rate</td>
<td>(16,768)</td>
<td>(15,550)</td>
</tr>
<tr>
<td>(34% in 2003 and 2002)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax effect of income not taxable in determining taxable profit</td>
<td>(1,103)</td>
<td>(5,478)</td>
</tr>
<tr>
<td>(non-temporary differences)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax effect of changes in valuation allowance</td>
<td>(2,711)</td>
<td>3,355</td>
</tr>
<tr>
<td>adjustment of using new tax rates</td>
<td>(425)</td>
<td>(415)</td>
</tr>
<tr>
<td></td>
<td>(18,801)</td>
<td>(18,088)</td>
</tr>
<tr>
<td>Tax charge per statutory book</td>
<td>20,810</td>
<td>15,078</td>
</tr>
<tr>
<td>Changes in deferred taxes</td>
<td>2,009</td>
<td>(3,010)</td>
</tr>
</tbody>
</table>

Income tax effects related to tax deductible IPO costs are directly recognised in capital reserve in equity.

Deferred tax assets and provisions for deferred taxes as at 31 December 2002 and 2001 are the result of the following temporary valuation and accounting differences between book values in the IFRS consolidated financial statements and the relevant tax bases:

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Asset</td>
<td>Liability</td>
</tr>
<tr>
<td>Intangible assets</td>
<td>1,390</td>
<td>(1,146)</td>
</tr>
<tr>
<td>Tangible assets</td>
<td>1,416</td>
<td>(10,064)</td>
</tr>
<tr>
<td>Financial assets</td>
<td>5</td>
<td>(33)</td>
</tr>
<tr>
<td>Inventories</td>
<td>137,554</td>
<td>(441)</td>
</tr>
<tr>
<td>Receivables</td>
<td>509</td>
<td>(26,251)</td>
</tr>
<tr>
<td>Short-term securities and shares</td>
<td>0</td>
<td>(113)</td>
</tr>
<tr>
<td>Other assets</td>
<td>0</td>
<td>(6)</td>
</tr>
<tr>
<td></td>
<td>140,874</td>
<td>(38,054)</td>
</tr>
<tr>
<td>Provisions</td>
<td>20,026</td>
<td>(29,735)</td>
</tr>
<tr>
<td>Liabilities</td>
<td>8,159</td>
<td>(123,172)</td>
</tr>
<tr>
<td>Deferred income</td>
<td>7,996</td>
<td>(141)</td>
</tr>
<tr>
<td></td>
<td>36,181</td>
<td>(153,048)</td>
</tr>
<tr>
<td>Tax loss carry-forwards</td>
<td>5,495</td>
<td>0</td>
</tr>
<tr>
<td>Deferred tax assets / liabilities</td>
<td>182,550</td>
<td>(191,102)</td>
</tr>
<tr>
<td>Valuation allowance for deferred tax assets</td>
<td>(12,959)</td>
<td>0</td>
</tr>
<tr>
<td>Other deferred taxes from consolidation</td>
<td>(615)</td>
<td>0</td>
</tr>
<tr>
<td>IAS 39 reserve</td>
<td>0</td>
<td>(9,544)</td>
</tr>
<tr>
<td>Offset within legal tax units and jurisdiction</td>
<td>(150,100)</td>
<td>150,100</td>
</tr>
<tr>
<td></td>
<td>18,876</td>
<td>(50,546)</td>
</tr>
</tbody>
</table>

Income tax effects related to tax deductible IPO costs are directly recognised in capital reserve in equity.

Beginning of 2004 a reduction of the Austrian corporate income tax rate was announced, which would result in a reduction of the deferred tax liability as of 31.12.2003 (by EUR 6,216 thousand).
19. Earnings per Share

Basic earnings per share (see Consolidated Income Statement) are calculated by dividing the net profit for the period attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the period.

I. SEGMENT INFORMATION

Segment information is prepared on the following basis:

Business segments
The Andritz Group conducts the majority of its business activities in the following areas:
- Pulp and Paper (P+P)
- Rolling Mills and Strip Processing Lines (WB)
- Environment and Process (EP)
- Feed Technology (FT)

All other minor business activities are included in „Other”.

Geographical segments

The Group’s activities are conducted predominantly in Europe, North America and Asia.

2003
Business segment data

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>P+P</th>
<th>WB</th>
<th>EP</th>
<th>FT</th>
<th>Other and transition</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>810,276</td>
<td>173,142</td>
<td>110,353</td>
<td>99,177</td>
<td>32,042</td>
<td>1,224,990</td>
</tr>
<tr>
<td>Segment result before amortisation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of goodwill</td>
<td>49,135</td>
<td>4,413</td>
<td>1,485</td>
<td>4,801</td>
<td>3,299</td>
<td>63,133</td>
</tr>
<tr>
<td>Total assets</td>
<td>444,333</td>
<td>65,418</td>
<td>87,272</td>
<td>66,631</td>
<td>301,258</td>
<td>966,912</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>384,590</td>
<td>67,943</td>
<td>47,007</td>
<td>25,991</td>
<td>202,281</td>
<td>727,812</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>9,301</td>
<td>1,419</td>
<td>1,545</td>
<td>6,637</td>
<td>1,647</td>
<td>20,549</td>
</tr>
<tr>
<td>Depreciation and amortisation of tangible and intangible fixed assets</td>
<td>14,763</td>
<td>2,171</td>
<td>1,828</td>
<td>2,626</td>
<td>(151)</td>
<td>21,237</td>
</tr>
<tr>
<td>Share of net profit / loss of associates</td>
<td>(419)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>(419)</td>
</tr>
<tr>
<td>Investment in associates</td>
<td>3,022</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3,022</td>
</tr>
</tbody>
</table>

Geographical segment data

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>Europe</th>
<th>North America</th>
<th>Asia</th>
<th>Rest of the world and consolidation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>External sales</td>
<td>645,049</td>
<td>259,729</td>
<td>236,738</td>
<td>83,474</td>
<td>1,224,990</td>
</tr>
<tr>
<td>Total assets</td>
<td>1,170,450</td>
<td>178,547</td>
<td>18,533</td>
<td>(400,618)</td>
<td>966,912</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>15,829</td>
<td>2,232</td>
<td>2,237</td>
<td>251</td>
<td>20,549</td>
</tr>
</tbody>
</table>
### 2002

#### Business segment data

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>P + P</th>
<th>WB</th>
<th>EP</th>
<th>FT</th>
<th>Other and transition</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>672,176</td>
<td>177,397</td>
<td>122,774</td>
<td>108,409</td>
<td>29,354</td>
<td>1,110,110</td>
</tr>
<tr>
<td>Segment result before amortisation of goodwill</td>
<td>39,248</td>
<td>8,538</td>
<td>984</td>
<td>4,228</td>
<td>5,735</td>
<td>58,733</td>
</tr>
<tr>
<td>Net segmental assets</td>
<td>74,043</td>
<td>(3,635)</td>
<td>48,654</td>
<td>37,071</td>
<td>17,136</td>
<td>173,269</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>11,497</td>
<td>1,613</td>
<td>1,913</td>
<td>5,342</td>
<td>2,621</td>
<td>22,986</td>
</tr>
<tr>
<td>Depreciation and amortisation of tangible and intangible fixed assets</td>
<td>14,216</td>
<td>2,536</td>
<td>1,789</td>
<td>1,916</td>
<td>1,684</td>
<td>22,141</td>
</tr>
<tr>
<td>Share of net profit / loss of associates</td>
<td>(46)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>(46)</td>
</tr>
<tr>
<td>Investment in associates</td>
<td>3,384</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3,384</td>
</tr>
</tbody>
</table>

#### Geographical segment data

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>Europe</th>
<th>North America</th>
<th>Asia</th>
<th>Rest of the world and consolidation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>External sales</td>
<td>498,749</td>
<td>280,509</td>
<td>190,195</td>
<td>140,657</td>
<td>1,110,110</td>
</tr>
<tr>
<td>Total assets</td>
<td>1,177,885</td>
<td>206,408</td>
<td>14,078</td>
<td>(488,506)</td>
<td>909,865</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>18,403</td>
<td>4,023</td>
<td>457</td>
<td>103</td>
<td>22,986</td>
</tr>
</tbody>
</table>

#### J. NOTES TO CASH FLOW STATEMENTS

##### Cash flows from acquisition of subsidiaries

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalent</td>
<td>(4,449)</td>
<td>(432)</td>
</tr>
<tr>
<td>Receivables</td>
<td>(6,886)</td>
<td>(11,290)</td>
</tr>
<tr>
<td>Inventories</td>
<td>(5,170)</td>
<td>(4,363)</td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>(14,027)</td>
<td>(1,644)</td>
</tr>
<tr>
<td>Financial assets</td>
<td>(160)</td>
<td>0</td>
</tr>
<tr>
<td>Financial debt</td>
<td>9,553</td>
<td>0</td>
</tr>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>11,673</td>
<td>22,015</td>
</tr>
<tr>
<td>Net assets / liabilities acquired</td>
<td>(9,466)</td>
<td>4,286</td>
</tr>
<tr>
<td>Cash and cash equivalent</td>
<td>4,449</td>
<td>432</td>
</tr>
<tr>
<td>Goodwill</td>
<td>(8,678)</td>
<td>(7,201)</td>
</tr>
<tr>
<td>Changes in minority interests</td>
<td>(248)</td>
<td>(4,546)</td>
</tr>
<tr>
<td><strong>Net cash flow</strong></td>
<td><strong>(13,943)</strong></td>
<td><strong>(7,029)</strong></td>
</tr>
</tbody>
</table>
K. FINANCIAL INSTRUMENTS

a. Foreign Exchange Risk Management
The Group mostly enters into fixed forward foreign exchange contracts in managing its foreign exchange risk resulting from cash flows from current business activities. Transaction risk is calculated in each foreign currency and includes currency denominated assets and liabilities and certain off-balance sheet items such as highly probable future cash flows for firm commitments and highly probable purchases and sales. The currency risks of the Group occur due to the fact that the Group operates and has production and sales in different countries worldwide. With the adoption of IAS 39, the Group has designated the major part of its forward exchange contracts as cash flow hedges and carries them at fair value.

b. Liquidity Risks
The Group’s policy is to maintain sufficient cash and cash equivalents or have available funding through an adequate amount of credit facilities to meet its commitments. Any excess cash is invested mostly in listed securities which are actively traded.

c. Credit Risks
Credit risks, or the risk of counterparties defaulting, are controlled by the application of credit approvals, limits and monitoring procedures. Where appropriate, the corporation obtains guarantees from governmental export agencies or similar private institutions to reduce the risk of a counterpart defaulting. Credit risk associated with the investment of liquid funds and securities is limited by the fact that the Group works only with financial partners who can demonstrate sound creditworthiness. For some financial assets and financial liabilities the Group has a legally enforceable right to set off. These amounts are only reported on a net basis. For all existing risks, valuation allowances are included, so that the Managing Board believes that no other credit risk will occur.

d. Interest Risk
In June 2002 the company issued a bond for a nominal value of 100 MEUR with a repayment period of 6 years and nominal interest rate of 6% p.a. For this bond an interest swap has been used to hedge the risk from the fixed interest rate of the bond. By this interest swap the fixed interest rate has been changed for the whole repayment period to a variable interest rate based on 1 month’s Euribor.

The Managing Board believes that the exposure to interest rate risk of remaining financial assets and liabilities is negligible. Consequently, additional derivative instruments for hedging of these interest risks are not used within the Group.

The weighted average effective interest rates at the balance sheet date were as follows:

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash on current accounts</td>
<td>0.9%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Short term deposits</td>
<td>4.1%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Securities, short term</td>
<td>3.9%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Securities, long term</td>
<td>3.1%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Overdraft on current accounts</td>
<td>3.0%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Short term loans</td>
<td>4.1%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Long term loans</td>
<td>5.0%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Bond</td>
<td>3.2%</td>
<td>4.2%</td>
</tr>
</tbody>
</table>
e. Fair Value of Financial Instruments

Fair value estimation

The fair value of forward foreign exchange contracts is determined using forward exchange market rates at the balance sheet date.

At the balance sheet date, the fair values of forward contracts were as follows:

<table>
<thead>
<tr>
<th>Remaining period</th>
<th>(in TEUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>not exceeding 1 year</td>
</tr>
<tr>
<td>US dollars</td>
<td>19,590</td>
</tr>
<tr>
<td>Swedish crowns</td>
<td>30</td>
</tr>
<tr>
<td>Singapore dollars</td>
<td>436</td>
</tr>
<tr>
<td>Other currencies</td>
<td>(73)</td>
</tr>
<tr>
<td></td>
<td>19,983</td>
</tr>
</tbody>
</table>

Fair values of forward contracts designated as cash flow hedges are included directly in equity.

<table>
<thead>
<tr>
<th>Remaining period</th>
<th>(in TEUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2003</td>
</tr>
<tr>
<td>Forward contracts with positive fair values</td>
<td>33,175</td>
</tr>
<tr>
<td>Forward contracts with negative fair values</td>
<td>(1,594)</td>
</tr>
<tr>
<td></td>
<td>31,581</td>
</tr>
</tbody>
</table>

At the balance sheet date, the fair value of the interest swap was as follows:

<table>
<thead>
<tr>
<th>Remaining period</th>
<th>(in TEUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>not exceeding 1 year</td>
</tr>
<tr>
<td>Interest swap</td>
<td>0</td>
</tr>
</tbody>
</table>

The Group’s principal financial instruments not carried at fair value are trade receivables, other current assets, other non current assets, trade and other payables, bank overdrafts, long-term borrowings.
Cash and cash equivalents, current investments and other non-current financial assets
The carrying amount of cash and other financial assets approximates fair value due to the relatively short-term maturity of these financial instruments.

Non-current and current securities
The fair values of publicly traded instruments are stated based on quoted market prices. For all other instruments for which there are no quoted market prices, a reasonable estimate of fair value has been calculated based on the expected cash flows or the underlying net asset base for each investment. Non-current securities of the Group are classified as „available for sale” and are valued at their quoted market price at the balance sheet date.

Receivables and payables
The historical cost carrying amounts of receivables and payables which are all subject to normal trade credit terms approximate their fair values.

Short-term borrowings
The carrying amount approximates fair value because of the short period to maturity of those instruments.

Long-term borrowings
The fair value of the long-term debts is based on the current rates available for debt with the same maturity profile. The fair value of non-current borrowings and other payables with variable interest rates approximates their carrying amounts.

The carrying amount is equal to the estimated fair value of the Group’s financial instruments. The interest risk of the bond has been hedged by an interest swap. Management believes that the exposure to interest rate risk of the remaining financial assets and liabilities is negligible.

IAS 39-Reserve
The table below shows the movements in the hedging reserve in equity in respect to gains and losses on forward contracts designated as cash flow hedges during the period.

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance as at 1 January</td>
<td>8,650</td>
<td>(1,821)</td>
</tr>
<tr>
<td>Movements in the period:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gains and losses from changes in fair value</td>
<td>20,939</td>
<td>13,227</td>
</tr>
<tr>
<td>Deferred income taxes thereon</td>
<td>(7,119)</td>
<td>(4,497)</td>
</tr>
<tr>
<td>Transfers to income statement</td>
<td>(5,974)</td>
<td>2,638</td>
</tr>
<tr>
<td>Deferred income taxes thereon</td>
<td>2,031</td>
<td>(897)</td>
</tr>
<tr>
<td>Balance as at 31 December</td>
<td><strong>18,527</strong></td>
<td><strong>8,650</strong></td>
</tr>
</tbody>
</table>

*) In the hedging reserve acc. to the Consolidated Statement of Shareholders’ Equity, an additional amount of EUR -16 thousand (2002: EUR -49 thousand) is included which arises from the valuation of available-for-sales investments.
L. LEASES

The Group and its subsidiaries have entered into various operating lease agreements for machinery, offices and other facilities as lessees. Lease terms do not contain restrictions on the Group’s activities concerning dividends, additional debt or further leasing. Rent expense amounts to EUR 11,420 thousand in 2003 and EUR 8,143 thousand in 2002 respectively.

Future lease payments under non-cancelable operating lease are as follows:

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next year</td>
<td>3,174</td>
<td>3,651</td>
</tr>
<tr>
<td>1 year to 5 years</td>
<td>11,147</td>
<td>7,739</td>
</tr>
<tr>
<td>After 5 years</td>
<td>20</td>
<td>157</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14,341</strong></td>
<td><strong>11,547</strong></td>
</tr>
</tbody>
</table>

M. COMMITMENTS

Commitments arising from contracts for expenditure on property, plant and equipment are only in the normal course of business. For 2003 these commitments amount to EUR 494 thousand and for 2002 to EUR 862 thousand.

N. CONTINGENT LIABILITIES

a. Litigation

Various legal actions and claims are pending or may be asserted in the future against Group companies from litigations and claims incidental to the ordinary course of business. These mainly include matters relating to warranties and infringement on intellectual property rights. Related risks have been analysed as to likelihood of occurrence. Although the outcome of these matters cannot always be ascertained with precision the Managing Board believes that no material liabilities are likely to result.

Andritz Inc., a subsidiary of the Company, is one of many defendants in a total of 61 asbestos cases in the US. Nearly all of these cases involve claims by multiple plaintiffs against multiple defendants. In aggregate the cases involve a total of approximately 18,082 plaintiffs. Andritz Inc. does not believe it should be found liable in connection with any of these claims and plans to vigorously defend each claim. Predecessors of Andritz Inc. supplied to certain worksites equipment that contained gaskets and/or packing purchased from third-party suppliers that may have contained encapsulated asbestos thereby preventing the release of asbestos fibers. In certain cases, the plaintiffs have alleged exposure to asbestos at some of these worksites. As the claims against Andritz Inc. in most cases have not as yet been stated with specificity it is not possible for Andritz Inc. to assess the full extent of its potential exposure to asbestos litigation, which could be significant. Andritz Inc. has not settled any asbestos claims or had a judgment of liability rendered against it in connection with an asbestos claim. It is possible that the final adjudication or settlement of such proceedings could have a material adverse effect on the Company’s business, results of operations and financial condition. The Group
believes it has several potential sources of recovery including insurance and/or contractual indemnities from the previous owners of the relevant businesses of Andritz Inc. Whether any indemnities and/or insurance will apply depends on the particular facts of each plaintiff’s claim. Because the claims against Andritz in most cases have not as yet been stated with specificity and for the reasons set forth below, it is not possible for the Group to assess the sufficiency of its sources of recovery. Moreover, certain indemnitors or insurers have contested and others may contest the applicability of the indemnity or insurance in question, and there can be no assurance that the Group will prevail in any dispute relating to the applicability of such insurance or indemnity to existing or future claims against a Group company.

b. Other

<table>
<thead>
<tr>
<th>(in TEUR)</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding bank guarantees concerning contracts with customers</td>
<td>172,333</td>
<td>108,532</td>
</tr>
<tr>
<td>Other contingent liabilities</td>
<td>6,621</td>
<td>7,520</td>
</tr>
</tbody>
</table>

According to several contracts the customer is entitled to hold retention until the end of the warranty period. In order to redeem these retentions bank guarantees were submitted to the customer. In addition, other bank and company guarantees were issued as guarantees for advance and progress payments from customers. The management believes that the provisions for warranties and the shown liabilities are sufficient. No additional financial outflows from these guarantees are expected. In some cases Andritz has similar retention agreements with suppliers. In order to settle these retentions Andritz receives bank guarantees from the suppliers.

O. RELATED PARTY TRANSACTIONS

Only minor business relations exist with the shareholders. The shareholders are:

Certus Beteiligungs-GmbH 26%
Carlyle Europe Partners LP 5%
Unternehmens Invest AG and Univest 2%
GE Capital Equity Holdings BV 1%
Deutsche Beteiligungs AG and Deutsche Beteiligungs Fonds III 1%
Management 2%
Own Shares 1%
Free Float 62%

*Emoluments of the Managing Board*

A provision of EUR 4,012 thousand in 2003 (EUR 4,165 thousand in 2002) has been recorded for pensions of former members of the Managing Board and their dependants; the current year expense for these pensions amounted to EUR 140 thousand for 2003 (EUR 504 thousand for 2002).

Directors’ total remuneration for 2003 amounted to EUR 3,633 thousand (thereof EUR 2,605 thousand for profit related bonuses) and for 2002 to EUR 3,772 thousand.
<table>
<thead>
<tr>
<th>Material Affiliated Companies</th>
<th>Place of Incorporation</th>
<th>Ownership Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andritz Denmark A/S</td>
<td>Esbjerg/Denmark</td>
<td>100%</td>
</tr>
<tr>
<td>Sprout-Matador A/S</td>
<td>Esbjerg/Denmark</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz (USA), Inc.</td>
<td>Arlington/Texas (USA)</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz Inc.</td>
<td>Muncy/Pennsylvania (USA)</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz-Ruthner, Inc.</td>
<td>Arlington/Texas (USA)</td>
<td>100%</td>
</tr>
<tr>
<td>Durametal Corporation</td>
<td>Tualatin/Oregon (USA)</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz Guinard S.A.S.</td>
<td>Velizy/France</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz Selas S.A.S.</td>
<td>Gennevilliers/France</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz Ingenieria S.A.</td>
<td>San Sebastián/Spain</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz GmbH</td>
<td>Hemer/Germany</td>
<td>100%</td>
</tr>
<tr>
<td>Sundwig GmbH</td>
<td>Hemer/Germany</td>
<td>75%</td>
</tr>
<tr>
<td>Andritz Fiedler GmbH &amp; Co KG</td>
<td>Regensburg/Germany</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz Oy</td>
<td>Hollola/Finland</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz Ltd./Ltée.</td>
<td>Montreal/Canada</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz Fiber Drying Ltd.</td>
<td>Lasalle/Canada</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz AB</td>
<td>Örnsköldsvik/Sweden</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz Fiber Drying AB</td>
<td>Växjö/Sweden</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz Ltd.</td>
<td>Chesterfield/UK</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz-Kenflo Foshan Pump Co. Ltd.</td>
<td>Foshan/China</td>
<td>60%</td>
</tr>
<tr>
<td>U.M.T. Limited</td>
<td>Hull/UK</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz Dies &amp; Rolls B.V.</td>
<td>Geldrop/Netherlands</td>
<td>100%</td>
</tr>
<tr>
<td>Andritz Brasil Ltda.</td>
<td>Curitiba/Brazil</td>
<td>100%</td>
</tr>
</tbody>
</table>

Graz, February 16, 2004

Wolfgang Leitner           Markku Hänninen           Franz Hofmann           Friedrich Papst           Bernhard Rebernik
The Supervisory Board was regularly informed by the Managing Board both verbally and in writing of the situation of the Company and its development as well as of major business transactions. The transactions that were subject to approval by the Supervisory Board were investigated and reviewed together with the Managing Board.

Hans Albrecht, Michael Hildisch, and Anton Schneider have withdrawn from the Supervisory Board. At the 96th annual general meeting Peter Mitterbauer, Gregor P. Böhm, and Heiner Rutt were elected new members of the Supervisory Board.

The Financial Statement of Andritz AG and the Consolidated Financial Statements as of December 31, 2003 as well as the Status Reports for 2003 were audited (also including the accounts) by AUDITOR TREUHAND GMBH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft, Vienna, who had been appointed as auditors by the Meeting of Shareholders and who certified the Financial Statements.

The Supervisory Board has examined the Financial Statements certified by the Auditors as well as the proposed appropriation of profit and the report of the Managing Board and concurs with the result of the Audit.

The Supervisory Board has approved the Financial Statement, which is herewith adopted in compliance with Article 125 para. 2 of the Corporation Act.

Graz, February 2004

Kurt Stiassny
Chairman of the Supervisory Board
EUROPE

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Fax: +48 22 87399 39  
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### Addresses of the Andritz Group

<table>
<thead>
<tr>
<th>Region</th>
<th>Name</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
<th>E-Mail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Andritz-Ruthner, Inc.</strong></td>
<td>125 Technology Drive, Southpoint Industrial Park, Canonsburg, PA 15317, USA</td>
<td>Phone: +1 724 745 7599, Fax: +1 724 745 9570, E-Mail: <a href="mailto:welcome@andritz-na.com">welcome@andritz-na.com</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Andritz Oy</strong></td>
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<td></td>
<td></td>
</tr>
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<tr>
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<td></td>
<td></td>
</tr>
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**Air-dried pulp**
Pulp is described technically as air-dried when its moisture content is in equilibrium with the ambient atmosphere. Commercially, pulp is usually described as air-dried when the moisture content of the pulp is 10%.

**Annealing**
Process in which metal is heated, retained at a suitable temperature, then cooled rapidly or slowly to reduce internal stress. As a result, the metal becomes softer and more workable, particularly in cold processes.

**APMP/P-RC™**
Alkaline Peroxide Mechanical Pulping is a refining process preceded by multi-stage impregnation with alkaline peroxide bleach liquors. The wood chips are compressed and destructured prior to addition of the bleach liquors. APMP systems can operate without a post bleach plant since bleaching takes place up front in the process. P-RC™ APMP is a technology that distributes chemicals between the impregnation steps and a small interstage bleach tower located between the primary and secondary refining stages. The prefix “P-RC” stands for Preconditioning Refiner Chemical.

**BCTMP**
Bleached Chemi-Thermo Mechanical Pulping. The prefix “B” indicates that a post bleach plant, most commonly alkaline peroxide, follows the CTMP pulping step.

**Black liquor**
Mixture of spent cooking chemicals and dissolved wood material remaining after sulphate cooking. Black liquor is recovered during pulp washing, concentrated by evaporation, and burned in the recovery boiler to regenerate the cooking chemicals and also produce energy for the mill.

**Brownstock**
The pulp obtained directly from the cooking process, before intercellular materials and cooking liquors have been removed.

**Cellulose**
The primary constituent of pulp. Chemically, cellulose is a long-chained carbohydrate consisting of repeating chains of a single simple sugar, glucose.

**Chemical pulp**
A generic term which describes pulp produced by chemical (as opposed to mechanical) processes. These chemical processes include kraft (sulphate) and sulphite processes.

**Chemical recovery**
In chemical pulping, the collection, recovery, and regeneration of cooking chemicals so that they can be utilized again in the process.

**Chipping**
A process in a woodroom area in which the debarked logs are converted into chips for pulping or refining processes. Chipping is typically done by horizontally or gravity-fed disc chippers.

**CrescentFormer**
Sheet forming section in a tissue machine, with the pulp suspension jet-out of the headbox flowing between a felt and a wire both moving at the same speed.

**CTMP**
Chemi-Thermo Mechanical Pulping is a pressurized refining process which is preceded by the addition of sulphite in a single impregnation stage. The refining pressure for CTMP is usually lower than for TMP since the sulphite treatment lowers the softening temperature of the wood lignin. By altering the parameters of the process (chemical concentration, temperature, etc.) it is possible to customize the pulp for particular end uses. CTMP may be bleached, in which case it is known as BCTMP.

**Debarking**
A process in a woodroom area in which most or all of the bark is removed from the logs before feeding the logs into the chipper, or into the grinder. Roundwood logs are typically debarked in a debarking drum.

**Deinking**
A process in which most of the ink, filler, and other extraneous material is removed from printed and/or unprinted recovered paper. The result is a pulp which can be used in the manufacture of new paper, including tissue, printing, writing, and office papers.

**Delignification**
Removal of lignin from wood fibers (cellulose and hemicellulose). This is performed primarily in the cooking process and further carried out in the washing and bleaching process. In bleaching, ECF pulp mills use chlorine compounds (chlorine dioxide) for this process, although it can be achieved with oxygen, hydrogen peroxide, or ozone (which do not create organochlorines).
**Digester**  
A pressure vessel, typically cylindrical used to treat wood chips or other cellulosic materials with chemicals under elevated pressure and temperature, so as to produce pulp for papermaking.

**DIP**  
Deinked Pulp. Pulp produced from deinked wastepaper, like old newsprint and old magazines. Most DIP is used in integrated paper mills, but some is sold on the market, in which case it is usually dried or wet-lapped.

**Disperging**  
A process stage in the treatment of recycled fibers. Several process stages are needed to remove the impurities (e.g. glue, ink) from the fibers. It is impossible, however, to eliminate all impurities. Disperging reduces these particles to such a small size that they are no longer detrimental to paper quality.

**ECF**  
Elemental Chlorine Free pulp. Pulp bleached without the use of any elemental chlorine. However, chlorine compounds (e.g. chlorine dioxide) may be used in the bleaching process.

**Effluent**  
Out-flowing stream from a process or confined space. The term is most often applied in liquid discharges into receiving waters.

**EPC**  
Engineer-Procure-Construct. A project delivery where one supplier assumes total responsibility for product and project engineering, equipment and construction procurement, and on-site construction.

**Extrusion**  
A continuous process in which animal feed components are cooked under pressure in a combination of frictional and steam heat in order to expand the resulting product and convert it into feed granulate. This process is very common in production of pet food, fish feed, and cereals.

**Fiberline**  
The machines and process systems involved in converting wood chips into pulp. Process steps can include cooking, washing, screening, knot separation, refining, and, if required, bleaching.

**Galvanizing**  
Process in which a support metal, such as iron or steel, is coated with a thin layer of zinc by electrolysis or hot dipping (in molten zinc) to provide protection against corrosion.

**Grade**  
A class or level of quality of pulp or paper which is distinguished from other pulps or paper on the basis of its use, appearance, quality, manufacturing history, raw materials, or a combination of these factors.

**GSM**  
Grams per Square Meter, or g/m². A measure of the basis weight of paper and board, or its grammage.

**GWD**  
Groundwood pulp. A mechanical pulping process which involves the grinding of logs against a rotating grindstone. Dilution water is necessary to produce an acceptable pulp. The grinding process can also operate at pressurized conditions, in which case it is referred to as PGW.

**Hammermill**  
Machine used for pulverizing raw materials for various applications including animal feed and preconditioning for refining applications; the raw materials are hammered by a series of steel hammers. The pulverized material exits through a screen plate with apertures. The size of the apertures and hammers, including the number of hammers, can be changed to achieve desired results.

**HC**  
Pulp suspension with a consistency between 18-40%.

**Headbox**  
Located at the wet end of a paper machine, the headbox delivers a uniform jet of paper slurry (furnish or stock) having essentially the same width as the paper web to be produced. The word is derived from earlier days when the hydrostatic head within the box was sufficient to deliver a jet velocity matching the speed of the forming fabric. Today, the pressure within a modern headbox is maintained by pumps and controls.

**Hemi-cellulose**  
One of the three main constituents of wood, along with cellulose and lignin. Hemi-cellulose are short-chain carbohydrates, built up from five different types of sugar.
Hexenuronic acid
Acid formed during chemical pulping that reacts with several bleaching chemicals, thus increasing their consumption. The elimination of hexenuronic acid reduces the need for bleaching chemicals and lowers the production costs of bleached pulp. It also helps to keep the pulp’s brightness longer.

Kraft pulp
The Kraft process is the world’s predominant chemical pulping process because of the strength of pulp it produces. The process involves cooking (digesting) wood chips in an alkaline solution, where the active cooking agent is a mixture of sodium hydroxide and sodium sulphide. The dissolved lignin is later removed, leaving behind the cellulose fibers. The term “kraft” is interchangeable with “sulphate” and is derived from a German word which means “strong.”

Kraft pulp mill
Facility in which pulp is produced using the sulphate chemical cooking process.

Lignin
One of the three main constituents of wood, along with cellulose and hemi-cellulose. Lignin acts as the cementing agent in wood, binding the cellulose fibers together.

LWC
Coated paper with comparatively low weight, generally below 72 gsm.

Market pulp
Pulp produced from wood, and sold on the open market, as opposed to that which is produced for internal consumption by an integrated paper mill or affiliated mill.

MDF
Medium Density Fiberboard. Board made of mechanical pulp from the refiner process.

Mechanical pulp
A generic term describing pulps produced by a mechanical (as opposed to a chemical) process. Also known as “high-yield” pulp as the processes utilize a higher proportion of the wood raw material than the chemical processes. There are a large number of mechanical pulping processes including GWD, PGW, RMP, TMP, CTMP, APMP, CMP, etc. Mechanical pulps are produced using either grinders or refiners. Mechanical pulps are used principally in the production of newsprint, magazine papers, printing papers, specialty papers, tissue, toweling, paperboard, and wallboard.

NBSK
Northern Bleached Softwood Kraft. The industry’s benchmark grade of pulp for pricing and inventory data. Produced primarily in Canada and the Nordic countries. Some NBSK is also produced in northwestern USA and Russia.

NCG
Non-Condensible Gas. Odorous discharges from mill processes that in previous years were vented to the atmosphere. Today, NCGs are collected and disposed of to meet environmental regulations and to stop the nuisance role these gases play with surrounding communities.

NOx
Nitrogen Oxide. A major component of gaseous emissions from a boiler or lime kiln.

Norscan
A term describing the group of five countries which have historically been the world’s principal producers of market pulp — Canada, USA, Sweden, Finland, and Norway.

Pickling
Process for chemical treatment of oxidized steel, applied to obtain a clean metallic surface. Here, the steel is dipped into a hot bath of diluted sulphuric or hydrochloric acid.

PrimeLine™
The PrimeLine™ tissue machine system is fully modularized for the production of customized tissue grades. It includes the PrimeFlow™ headbox, PrimeForm™ former, the PrimePress™ or TissueFlex™ shoe press, Prime-Dry™ T-rib Yankee, EquiDry™ Yankee hood, PrimeReel™, and PrimeControl™ automation system. Each PrimeLine™ component is selected for specific quality requirements from standard tissue grades to super-soft tissue products.

Recovery boiler
In kraft pulping, a special boiler where the black liquor from the cooking process is burned, after concentrating it in an evaporation process. The residual carbon is burned and the inorganic sodium salts are melted and recovered.
Recycled fiber
Fiber derived from wastepaper which has been recycled.

Recycled paper
Paper which has been made partly or wholly from recycled fiber.

Refiner
Machine used to grind pulp between two discs. Refiners can operate at low consistency or at higher consistencies. At low consistencies the material is fed to the refiner using a pump. At higher consistency levels conveying devices are used. Other refiner types are used for breaking down wood chips into fibers.

Rolling mill
Plant in which steel strip is formed between two rolls rotating at the same speed in opposite directions.

RTS™
Retention time, Temperature, Speed refining. A TMP process produces better quality mechanical pulp at lower energy consumption. Improved fiber properties are obtained by rapid heat treatment of the fibers at higher temperatures, while optical properties are preserved due to the low retention time. The process is operated at higher refiner disc speeds, most commonly 2300 rpm.

SGW
Stone Groundwood. A mechanical pulping process in which wood logs are ground against a rotating grindstone in an atmospheric environment. SGW pulps have low strength properties but good optical properties.

Semi-chemical pulp
Pulp produced in a two-stage process which involves the partial digestion of the wood with chemicals, followed by mechanical separation of the fibers in a disc refiner. Semi-chemical pulp is used in niche applications, especially those which require fiber stiffness (e.g. packaging grades). Semi-chemical pulps have a yield between that of mechanical and chemical pulps.

Sludge
Waste created during the biological process of treating effluent from a manufacturing or municipal wastewater process.

Stock pump
Special centrifugal pump for water and fiber suspensions.

TAD
Through-Air Drying. Process for tissue drying with the paper web running over a perforated drum where hot air is blown through the web.

TCF
Totally Chlorine Free. Pulp bleached without the use of chlorine or chlorinated chemical compounds.

Tissue
A general term indicating a class of papers which include grades such as toilet, facial, napkin, towels, wipes, and special sanitary papers. Desirable characteristics in these types of tissue papers are softness, strength, and freedom from lint. Tissue papers are divided into three major categories: At-Home (or Consumer), Away-from-Home (or Commercial & Industrial), and Specialty.

TMP
Thermo-Mechanical Pulping is a refining process in which wood chips are refined in a pressurized refiner. The process can involve from one to three refining stages in the mainline, however, two stages are most common. The higher temperatures help soften the chips, which results in higher pulp strength compared to atmospheric refined pulps (RMP). TMP relies on mechanical energy rather than chemicals to convert wood into pulp. TMP pulps are most commonly used in newsprint and magazine papers.

Virgin fibers
The raw material for making paper, produced either chemically or mechanically by removing the cellulose fibers from the structure of the wood or from other materials, such as used/recycled rags, bagasse, and straw.

Wet end
Section at the beginning of a paper or pulp dewatering machine. At the wet end, the pulp enters the machine and the bulk of the water is removed by dewatering, suction, and press rolls in order to obtain a paper web that can be fed through a drying section.

Woodfree paper
Printing and writing paper that contains little or no (less than 10%) mechanical wood pulp. Woodfree paper may be coated or uncoated, and is sometimes referred to as "free sheet" or "fine paper."