THE ANDRITZ GROUP

ANDRITZ is a globally leading supplier of plants, equipment, and services for hydropower stations, the pulp and paper industry, the metalworking and steel industries, and for solid/liquid separation in the municipal and industrial sectors as well as for animal feed and biomass pelleting. Other important business segments include automation and service business.

In addition, the international Group is also active in the power generating sector (steam boiler plants, biomass boilers, recovery boilers, and gasification plants) and in environmental technology (flue gas cleaning plants) and offers equipment for the production of nonwovens, dissolving pulp, and panelboard as well as recycling plants.

The publicly listed technology Group is headquartered in Graz, Austria, and has a staff of approximately 25,200 employees. ANDRITZ operates more than 250 sites in over 40 countries.

An overview of the company’s key figures:

<table>
<thead>
<tr>
<th><strong>Unit</strong></th>
<th><strong>2016</strong></th>
<th><strong>2015</strong></th>
<th><strong>2014</strong></th>
<th><strong>2013</strong></th>
<th><strong>2012</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Order intake</strong></td>
<td>MEUR</td>
<td>5,568.8</td>
<td>6,017.7</td>
<td>6,101.0</td>
<td>5,611.0</td>
</tr>
<tr>
<td><strong>Order backlog (as of end of period)</strong></td>
<td>MEUR</td>
<td>6,789.2</td>
<td>7,324.2</td>
<td>7,510.6</td>
<td>7,388.5</td>
</tr>
<tr>
<td><strong>Sales</strong></td>
<td>MEUR</td>
<td>6,039.0</td>
<td>6,377.2</td>
<td>5,859.3</td>
<td>5,710.8</td>
</tr>
<tr>
<td><strong>EBITDA</strong>&lt;sup&gt;1)&lt;/sup&gt;</td>
<td>MEUR</td>
<td>642.4</td>
<td>534.7</td>
<td>472.0</td>
<td>255.2</td>
</tr>
<tr>
<td><strong>EBITDA margin</strong>&lt;sup&gt;2)&lt;/sup&gt;</td>
<td>%</td>
<td>9.0</td>
<td>8.4</td>
<td>8.1</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>EBIT</strong>&lt;sup&gt;2)&lt;/sup&gt;</td>
<td>MEUR</td>
<td>442.1</td>
<td>429.0</td>
<td>379.5</td>
<td>164.1</td>
</tr>
<tr>
<td><strong>EBIT margin</strong>&lt;sup&gt;2)&lt;/sup&gt;</td>
<td>%</td>
<td>7.3</td>
<td>6.7</td>
<td>6.5</td>
<td>2.9</td>
</tr>
<tr>
<td><strong>Earnings Before Interest and Taxes (EBIT)</strong></td>
<td>MEUR</td>
<td>385.6</td>
<td>369.1</td>
<td>295.7</td>
<td>89.8</td>
</tr>
<tr>
<td><strong>EBIT margin</strong>&lt;sup&gt;2)&lt;/sup&gt;</td>
<td>%</td>
<td>6.4</td>
<td>5.9</td>
<td>6.0</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>Earnings Before Taxes (EBT)</strong></td>
<td>MEUR</td>
<td>398.4</td>
<td>376.4</td>
<td>294.4</td>
<td>80.3</td>
</tr>
<tr>
<td><strong>Provisions</strong></td>
<td>MEUR</td>
<td>274.8</td>
<td>270.4</td>
<td>210.0</td>
<td>53.2</td>
</tr>
<tr>
<td><strong>Non-current assets</strong></td>
<td>MEUR</td>
<td>1,193.7</td>
<td>1,844.7</td>
<td>2,007.4</td>
<td>1,851.2</td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td>MEUR</td>
<td>4,284.9</td>
<td>3,933.3</td>
<td>3,987.8</td>
<td>3,720.2</td>
</tr>
<tr>
<td><strong>Total shareholders’ equity</strong>&lt;sup&gt;3)&lt;/sup&gt;</td>
<td>MEUR</td>
<td>1,344.2</td>
<td>1,215.6</td>
<td>1,038.3</td>
<td>929.5</td>
</tr>
<tr>
<td><strong>Liabilities</strong></td>
<td>MEUR</td>
<td>3,735.5</td>
<td>3,432.0</td>
<td>3,900.7</td>
<td>3,648.3</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>MEUR</td>
<td>6,198.6</td>
<td>5,778.0</td>
<td>5,995.2</td>
<td>5,571.4</td>
</tr>
<tr>
<td><strong>Equity ratio</strong>&lt;sup&gt;4)&lt;/sup&gt;</td>
<td>%</td>
<td>21.7</td>
<td>21.0</td>
<td>17.3</td>
<td>16.7</td>
</tr>
<tr>
<td><strong>Liquid funds</strong>&lt;sup&gt;5)&lt;/sup&gt;</td>
<td>MEUR</td>
<td>945.3</td>
<td>984.0</td>
<td>1,065.1</td>
<td>893.1</td>
</tr>
<tr>
<td><strong>Net liquidity</strong>&lt;sup&gt;6)&lt;/sup&gt;</td>
<td>MEUR</td>
<td>386.6</td>
<td>179.4</td>
<td>342.1</td>
<td>93.7</td>
</tr>
<tr>
<td><strong>Cash flow from operating activities</strong></td>
<td>MEUR</td>
<td>119.6</td>
<td>101.4</td>
<td>106.5</td>
<td>111.4</td>
</tr>
<tr>
<td><strong>Employees (as of end of period; without apprentices)</strong></td>
<td>–</td>
<td>25,162</td>
<td>24,508</td>
<td>24,853</td>
<td>23,713</td>
</tr>
</tbody>
</table>

<sup>1)</sup> Earnings Before Interest, Taxes, Depreciation, and Amortization  <sup>2)</sup> Earnings Before Interest, Taxes, Amortization of identifiable assets acquired in a business combination and recognized separately from goodwill at the amount of 41,913 TEUR (2015: 44,644 TEUR), and impairment of goodwill at the amount of 14,379 TEUR (2016: 15,273 TEUR)  
<sup>3)</sup> Total shareholders’ equity including non-controlling interests  
<sup>4)</sup> Shareholders’ equity/total assets  
<sup>5)</sup> Liquid funds plus fair value of interest rate swaps minus financial liabilities  
<sup>6)</sup> Additions to intangible assets and property, plant, and equipment  

All figures according to IFRS. Due to the utilization of automatic calculation programs, differences can arise in the addition of rounded totals and percentages. MEUR = million euros, TEUR = thousand euros. The Schuler Group was consolidated into the consolidated financial statements of the ANDRITZ GROUP as of March 1, 2013 and is allocated to the METALS business area. No pro forma figures are available for the reference periods of the previous years.
Dear Readers,

This year’s ANDRITZ Annual Report has the motto “ANDRITZ – Safety from A to Z.” At manufacturing companies like ANDRITZ, the concept of occupational safety is the first that springs to mind. But safety means much more at ANDRITZ: With examples from our four large business areas, we would like to give you some insights into the various levels of safety in our articles and interviews.

Water turbines make a contribution towards guaranteeing the supply of electricity, even in remote areas of the globe. Data-supported solutions in automation technology make stable production possible and prevent outages. Future reliability is a big topic, particularly in the automotive industry, and e-mobility provides important leverage here. And, of course, there is also safety at work on construction sites and in operation of the plants that we install. In short: ANDRITZ stands for safety and reliability for all stakeholders, be they customers, employees, shareholders, or other people with an interest in the company.

In the 2016 Annual Report, ANDRITZ is also taking a first step towards providing an “Integrated Annual Report.” In the separate financial part, which will be available as a PDF document, all sustainability topics and data have been integrated into the respective chapters.

Very truly yours,
Wolfgang Leitner
President & CEO of ANDRITZ AG
PULP & PAPER

ANDRITZ PULP & PAPER is a leading global supplier of complete plants, systems, equipment, and comprehensive services for the production and processing of all types of pulp, paper, tissue, and cardboard. The technologies cover the processing of logs, annual fibers, and waste paper; the production of chemical pulp, mechanical pulp, and recycled fibers; the recovery and reuse of chemicals; the preparation of paper machine furnish; the production of paper, tissue, and cardboard; the calendering and coating of paper; as well as the treatment of reject materials and sludge. The service offering includes system and machine modernization, rebuilds, spare and wear parts, on-site and workshop services, optimization of process performance, maintenance and automation solutions, as well as machine relocation and second-hand equipment. Biomass, steam, and recovery boilers, as well as gasification plants for power generation, flue gas cleaning plants, plants for the production of nonwovens, dissolving pulp, and panelboard (MDF), as well as recycling plants are also part of this business area.

<table>
<thead>
<tr>
<th>Unit</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order intake</td>
<td>MEUR</td>
<td>1,500.3</td>
<td>1,718.7</td>
<td>1,816.7</td>
<td>1,865.4</td>
</tr>
<tr>
<td>Order backlog (as of end of period)</td>
<td>MEUR</td>
<td>3,269.6</td>
<td>3,640.9</td>
<td>3,708.6</td>
<td>3,722.4</td>
</tr>
<tr>
<td>Sales</td>
<td>MEUR</td>
<td>1,752.4</td>
<td>1,834.8</td>
<td>1,752.3</td>
<td>1,804.8</td>
</tr>
<tr>
<td>EBITDA</td>
<td>MEUR</td>
<td>167.2</td>
<td>183.6</td>
<td>177.2</td>
<td>176.8</td>
</tr>
<tr>
<td>EBITDA margin %</td>
<td>%</td>
<td>9.5</td>
<td>10.0</td>
<td>10.1</td>
<td>9.8</td>
</tr>
<tr>
<td>EBITA</td>
<td>MEUR</td>
<td>127.6</td>
<td>145.3</td>
<td>144.8</td>
<td>146.9</td>
</tr>
<tr>
<td>EBITA margin %</td>
<td>%</td>
<td>7.3</td>
<td>7.9</td>
<td>8.3</td>
<td>8.1</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>MEUR</td>
<td>26.1</td>
<td>27.4</td>
<td>39.4</td>
<td>44.5</td>
</tr>
<tr>
<td>Employees (as of end of period; without apprentices)</td>
<td>–</td>
<td>7,260</td>
<td>8,230</td>
<td>8,339</td>
<td>7,445</td>
</tr>
</tbody>
</table>

HYDRO

ANDRITZ HYDRO is one of the leading global suppliers of electromechanical equipment for hydropower plants. With over 175 years of accumulated experience and more than 31,000 turbines installed, totaling approximately 430,000 megawatts output, the business area provides the complete range of products, including turbines, generators, and additional equipment of all types and sizes – “from water to wire” for small hydro applications to large hydropower plants with outputs of more than 800 megawatts per turbine unit. ANDRITZ HYDRO is well positioned in the growing modernization, refurbishment, and upgrade market for existing hydropower plants. Pumps (for water transport, irrigation of agricultural land, and applications in various industries) and turbogenerators for thermal power plants are also allocated to the business area.

<table>
<thead>
<tr>
<th>Unit</th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order intake</td>
<td>MEUR</td>
<td>1,919.5</td>
<td>2,203.9</td>
<td>1,995.2</td>
</tr>
<tr>
<td>Order backlog (as of end of period)</td>
<td>MEUR</td>
<td>1,803.3</td>
<td>1,998.6</td>
<td>1,875.4</td>
</tr>
<tr>
<td>Sales</td>
<td>MEUR</td>
<td>2,094.4</td>
<td>2,196.3</td>
<td>1,969.3</td>
</tr>
<tr>
<td>EBITDA</td>
<td>MEUR</td>
<td>207.7</td>
<td>214.8</td>
<td>127.6</td>
</tr>
<tr>
<td>EBITDA margin %</td>
<td>%</td>
<td>9.9</td>
<td>9.8</td>
<td>6.5</td>
</tr>
<tr>
<td>EBITA</td>
<td>MEUR</td>
<td>182.2</td>
<td>190.9</td>
<td>102.9</td>
</tr>
<tr>
<td>EBITA margin %</td>
<td>%</td>
<td>8.7</td>
<td>8.7</td>
<td>5.2</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>MEUR</td>
<td>34.1</td>
<td>21.1</td>
<td>28.1</td>
</tr>
<tr>
<td>Employees (as of end of period; without apprentices)</td>
<td>–</td>
<td>7,522</td>
<td>7,324</td>
<td>7,236</td>
</tr>
</tbody>
</table>
METALS

ANDRITZ METALS is the technology and global market leader in forming equipment through the Schuler Group, in which ANDRITZ has a stake of more than 95 percent. Schuler offers presses, automation solutions, dies, process know-how, and services for the entire metalforming industry. Its customers include car manufacturers and their suppliers, as well as companies in the forging, household appliance, packaging, energy, and electrical industries. Schuler is also the market leader in coin minting technology and offers system solutions for the aerospace, railway, and large pipe industries. In addition, ANDRITZ METALS is one of the leading global suppliers of complete lines for the production and processing of cold-rolled strip made of stainless steel, carbon steel, aluminum, and non-ferrous metal. The lines comprise equipment for pickling, cold rolling, heat treatment, surface finishing, strip coating and finishing, punching and deep drawing, and the regeneration of pickling acids. The business area also supplies turnkey furnace systems for the steel, copper, and aluminum industries, as well as welding systems for the metalworking industry.

<table>
<thead>
<tr>
<th>Unit</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order intake</td>
<td>MEUR</td>
<td>1,581.5</td>
<td>1,438.6</td>
<td>1,692.8</td>
<td>1,233.8</td>
</tr>
<tr>
<td>Order backlog (as of end of period)</td>
<td>MEUR</td>
<td>1,369.0</td>
<td>1,322.5</td>
<td>1,566.1</td>
<td>1,427.6</td>
</tr>
<tr>
<td>Sales</td>
<td>MEUR</td>
<td>1,598.4</td>
<td>1,718.1</td>
<td>1,550.4</td>
<td>1,311.0</td>
</tr>
</tbody>
</table>
| EBITDA                | MEUR  | 141.7   | 104.8   | 134.0   | 76.6    | 28.0 
| EBITDA margin         | %     | 8.9     | 6.1     | 8.6     | 5.8     | 6.9  |
| EBITA                 | MEUR  | 115.2   | 70.5    | 110.2   | 53.5    | 25.1 |
| EBITA margin          | %     | 7.2     | 4.1     | 7.1     | 4.1     | 6.2  |
| Capital expenditure   | MEUR  | 49.1    | 40.2    | 27.9    | 32.7    | 2.6  |
| Employees (as of end of period; without apprentices) | - | 7,608 | 6,160 | 6,432 | 6,300 | 1,129 |

The Schuler Group was consolidated into the consolidated financial statements of the ANDRITZ GROUP as of March 1, 2013 and is allocated to the METALS business area. No pro forma figures are available for the reference periods of the previous years.

SEPARATION

ANDRITZ SEPARATION is one of the leading separation technology specialists with the broadest technology portfolio in solid/liquid separation. ANDRITZ has been a driving force in the development of technologies and services for solid/liquid separation, as well as for the production of animal feed and biomass pellets for over 150 years. The industries served include sectors ranging from environment to food, chemicals, mining, and minerals. The comprehensive product portfolio for solid/liquid separation includes mechanical technologies such as centrifuges, filters, screens, thickeners, or separators, and thermal technologies such as dryers or coolers. The service sector focuses on plant modernization, spare and wear parts, and process optimization.

<table>
<thead>
<tr>
<th>Unit</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order intake</td>
<td>MEUR</td>
<td>597.5</td>
<td>596.5</td>
<td>595.8</td>
<td>604.1</td>
</tr>
<tr>
<td>Order backlog (as of end of period)</td>
<td>MEUR</td>
<td>347.3</td>
<td>302.2</td>
<td>360.5</td>
<td>352.9</td>
</tr>
<tr>
<td>Sales</td>
<td>MEUR</td>
<td>593.8</td>
<td>628.0</td>
<td>587.3</td>
<td>589.7</td>
</tr>
<tr>
<td>EBITDA</td>
<td>MEUR</td>
<td>25.8</td>
<td>31.5</td>
<td>33.2</td>
<td>13.3</td>
</tr>
<tr>
<td>EBITDA margin</td>
<td>%</td>
<td>4.3</td>
<td>5.0</td>
<td>5.7</td>
<td>2.3</td>
</tr>
<tr>
<td>EBITA</td>
<td>MEUR</td>
<td>17.1</td>
<td>22.3</td>
<td>21.6</td>
<td>-0.6</td>
</tr>
<tr>
<td>EBITA margin</td>
<td>%</td>
<td>2.9</td>
<td>3.6</td>
<td>3.7</td>
<td>-0.1</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>MEUR</td>
<td>10.2</td>
<td>12.7</td>
<td>11.1</td>
<td>8.2</td>
</tr>
<tr>
<td>Employees (as of end of period; without apprentices)</td>
<td>-</td>
<td>2,772</td>
<td>2,794</td>
<td>2,846</td>
<td>2,832</td>
</tr>
</tbody>
</table>
NECESSARY
Why sustainability is necessary to create a safe future for ANDRITZ and its customers.

DURABLE
How ANDRITZ HYDRO is contributing towards improving the electricity supply in the Democratic Republic of the Congo.

RELEVANT
Why big data is important for ANDRITZ PULP & PAPER in optimizing production for its customer Fibria.

INNOVATIVE
How Schuler, a member of the ANDRITZ GROUP, is shaping future mobility with its innovative forming systems.

TEAM-ORIENTED
How ANDRITZ and Klabin have implemented a very successful concept together for maximum occupational safety at Klabin’s new pulp mill.
Sustainability is necessary to create durable values and goods, thus contributing towards conserving natural resources and protecting the environment. That is why the term sustainability has always had a multi-dimensional, comprehensive, and practice-oriented connotation at ANDRITZ. For ANDRITZ employees, it means a high commitment towards the company’s stakeholders – one that they have to fulfill anew every day. The challenges and opportunities this involves are just as manifold as they are interdependent.
Necessary for a safe future.

A sustainable way of thinking and of acting is necessary in order to create a safe future. Thus, sustainability at ANDRITZ is synonymous with safety. From an economic perspective, sustainability embodies engaging in active risk management and thus offers stakeholders the maximum possible financial safety. From a social perspective, it means being an attractive and responsible employer for all employees. Last, but not least, safety at ANDRITZ also stands for the manufacture of durable products that help customers to achieve their sustainability targets and to make use of resources as economically and efficiently as possible. This is how ANDRITZ practices sustainability every day: multi-dimensional, consistent, compliant, and long-term.
Collating and debating: During their discussion on sustainability at ANDRITZ, Wolfgang Leitner and Rudolf X. Ruter collate their thoughts with the aid of keywords on post-it notes.
Sustainability is a term that often remains vague. But at ANDRITZ it is linked to a clearly defined meaning and business strategy.

In conversation with corporate governance expert Rudolf X. Ruter, ANDRITZ President & CEO Wolfgang Leitner explains what this means exactly and why safety plays a central role here.

Rudolf X. Ruter: The term sustainability has a long history. However, in the context of corporate reporting it only became established just over 15 years ago. When did sustainability become an important topic at ANDRITZ?

Wolfgang Leitner: Sustainability has always been part of daily business at ANDRITZ, also before everyone started talking about it. The term originates from the forestry sector. Sustainable meant felling only a limited number of trees within a certain period and reforesting meticulously at the same time. Unfortunately, it has become no more than a buzzword in many cases in spite of having a real and important background. Sustainability at ANDRITZ is synonymous with providing stability – stability in terms of the environment, society, and the economy. This is a topic in which we consciously take a multi-dimensional and rational approach.

R: What do you mean exactly?

L: If a company wants to enjoy sustained success, it must be guided by rationality, which means that not only opportunities but also risks have to be identified and analyzed in all entrepreneurial decisions and that these risks must also be contained as best possible. It doesn’t matter whether we are talking about occupational safety on job sites, dubious business practices like phishing attacks, financial safety by hedging of foreign exchange risks for example, or other topics. A global company like ANDRITZ must do everything in its power to avoid endangering its future. Our goal is to continue the company’s positive development in the long term. And in the long term essentially means forever.

R: Compared to other companies, ANDRITZ occupied itself with compliance at a relatively early stage. It published a detailed “Code of Business Conduct and Ethics” in 2010. How did this come about?

L: Uncoordinated and spontaneous individual actions to stop or cover up internal irregularities or gloss over negative events are wrong and can have fatal consequences. Thus, the Code was the first step towards anchoring the basic principles of correct conduct in the company. However, the deciding factor is how these principles are implemented in day-to-day business. We attach enormous importance to compliance because if we didn’t, we would be exposed to incalculable internal and external risks. By the way, this also applies to supply chain management. We deal responsibly with our suppliers and have implemented a “Supplier Code of Conduct” for this purpose.

L: The two go hand in hand. Sustainability does not guarantee success. We should not pin too much on this term. Sustainability as such entails neither morality nor social responsibility. But decency, morality, and responsibility are the foundation on which every sustainable company management is built. Much of what is subsumed under the term sustainability today may well be useful and well intended, but is not necessarily linked to sustainability in itself.

R: Is it easier for a company to think and act sustainably if it is economically successful?

L: The two go hand in hand. Sustainability does not guarantee success. We should not pin too much on this term. Sustainability as such entails neither morality nor social responsibility. But decency, morality, and responsibility are the foundation on which every sustainable company management is built. Much of what is subsumed under the term sustainability today may well be useful and well intended, but is not necessarily linked to sustainability in itself.
R: What is the essence of business conduct and ethics at ANDRITZ? What is your central focus?

L: We have a few clear principles. Compliance cannot mean that the Executive Board issues a set of rules that the employees are unable to obey. The Executive Board also cannot expect by implication that the management levels below it ignore these rules at their own risk in order to achieve the targets that have been set. That would be hypocritical. We executives live by these rules, and it must be possible for all other employees to do the same. Compliance must reflect reality, and the employees must be able to negotiate the path they take in applying them. Compliance is not a substitute for success, but is one of its prerequisites. We have to secure orders and be compliant at the same time. Both are needed. The rules to which we have committed must be strictly observed and apply to everyone.

R: This year you improved your compliance system by introducing the online whistleblowing system “Speak up.” Why was this needed?

L: We want to make it easier for our employees, customers, and suppliers to report misconduct, anonymously or otherwise, but without anyone being criticized wrongfully or irresponsibly. The topics mentioned in the Code of Conduct, such as insider trading, bribery, corruption, and the like, are among those to be reported. The information is encrypted electronically and transmitted via a high-security server belonging to an external provider. This increases the level of confidentiality. And only our compliance officer can decrypt the whistleblower’s message with the aid of a password-protected key. We have also decided not to grant any reward for reports in order to avoid creating any false incentives. We are now monitoring how our employees perceive and use the new system. So far, our experience has been good.

R: No matter how well thought out the compliance rules may be, there will always be individual decisions as well where it is difficult to determine whether you are living up to your own values, such as respect and integrity. How do you deal with this dilemma?

L: Of course, there are always balancing acts of this kind. But these are very much the exception. We expect our employees to respect the internal guidelines and the laws of a country and to behave accordingly. If a project in Brazil for example, a country with an established and functioning legal system, is ultimately approved after all objections by those concerned have been heard and the project has basically undergone the same process as a large project in Europe, ANDRITZ cannot declare the project to be wrong or immoral and not supply any equipment or bid for an order.

R: So ANDRITZ does not pursue a political agenda?

L: Correct. Moreover, we will not impose our will on anyone. We seek to support the countries in which we operate to the best of our ability and to make a contribution towards local value added. I believe ANDRITZ is in the top percentage range in terms of wages and salaries paid in all the countries in which we operate. We are also a leading company when it comes to social benefits and training rates. In my opinion, this is how a globally operating company like ours should act when working in countries that still have some development efforts ahead of them. We would like to be a very attractive employer in all regions and thus also be able to offer interesting global career opportunities.

R: Such as?

L: We have set up apprentices’ workshops at some of the places where we have carried out large orders. In some cases, we do this together with other companies, as in Mexico, and sometimes alone, as in Turkey. We have also seen how attractive the people there find dual professional training according to German or Austrian standards, for example.

R: What else does sustainability involve for ANDRITZ apart from compliance?

L: This year, we launched a global safety initiative in collaboration with the quality managers and...
safety experts at our locations. The goal is to give priority to safety regulations, reduce the number of risks, and lower the number of accidents on job sites. We want to develop a preventive safety culture based on appropriate awareness. This means preventing unsafe actions in general and making work processes safe. Safety must be an ever-present part of the daily work routine.

R: How do you measure the progress made?

L: We have a monthly reporting system. For example, we record accidents and near-accidents at all of our locations and on all job sites. We compare our locations with one another, constantly observe what new safety engineering features there are in our industry, learn from successful examples, conduct intensive discussions if necessary, and implement measures in order to improve the situation quickly. Of course, our aim is to be completely accident free – although we are aware that this goal is enormously ambitious.

R: At the beginning of our conversation, you mentioned the environment as a dimension of sustainability. What is ANDRITZ doing in this sector?

L: ANDRITZ has been producing equipment and technologies that are environmentally sustainable ever since the company was established: water turbines, generators, biomass boilers, and also sewage sludge treatment systems – to name but a few. Just under 50 percent of our current sales relate to products that contribute towards a sustainable energy supply or sustainable waste disposal. These products are long-lasting, easy to maintain, and highly efficient. In many cases, our technologies also help to build up a stable infrastructure, promote sustainable industrialization, and drive innovations.

R: Is this why you see ANDRITZ as a “green” company?

L: I leave it to others to judge this. In my view, there can be no contradiction between “we make a profit” and “we are a green company” in the world of business. It must be both. That’s what we try to do. And so far, we haven’t done too badly.

Wolfgang Leitner
President & CEO
ANDRITZ AG

Rudolf X. Ruter
Corporate governance expert

Wolfgang Leitner joined ANDRITZ AG in 1987 as Chief Financial Officer. He has been President & CEO since 1994.

Rudolf X. Ruter has a degree in economics and is an auditor and expert in the field of sustainability and corporate governance.
Hydropower is fundamental to power generation in the Democratic Republic of the Congo. The Inga II dam built on the Congo River in 1982 plays a central role here. It produces much of the electricity supplied to the capital city Kinshasa and to many industrial companies in Katanga Province. Between 1989 and 2009, the hydropower station was shut down completely at times as a result of the civil wars raging in the country. ANDRITZ has made a substantial contribution towards making Inga II fully operational again and thus ensuring the power supply in this emerging African economy.
The Inga I and II dams are on the lower reaches of the Congo River. Two of the eight units in the Inga II hydropower station (in the foreground) were modernized and refitted by ANDRITZ.
ANDRITZ completely disassembled two Francis turbines and conducted extensive repairs on all components. The runners have a diameter of 6.5 meters and each weighs 95 tons.
Hydropower means economic strength: In the Democratic Republic of the Congo, the Inga II power station is pictured on the 100-franc notes, underlining how important hydropower is for the country's economic upswing.
99 percent of the electric power in the Democratic Republic of the Congo is generated with the aid of clean, renewable hydropower. Over 40 percent of the hydropower capacity installed in the Democratic Republic of the Congo comes from ANDRITZ. As a leading supplier of electromechanical equipment in the Democratic Republic of the Congo and Africa as a whole, ANDRITZ is making a decisive contribution towards the economic upswing.
The energy supply in the Democratic Republic of the Congo was unstable for a very long time. Not least due to modernization of the Inga II hydro-power station, the electricity supply for the rapidly growing population has become more reliable and largely secured.
Energy consumption in sub-Saharan Africa has increased by 45 percent since the year 2000. In the Democratic Republic of the Congo, the increase in power consumption over the same period was approximately 75 percent. However, only 2.6 percent of the country's hydropower potential is currently being tapped.
Thirteen percent of the world’s population lives in Africa. However, the people there consume only four percent of the energy generated globally. With a share of 20 percent, hydropower already makes an important contribution towards power generation in sub-Saharan Africa and will gain even more significance in the future.
With the modernization and repair of two out of the eight turbine units in total, the government of the Democratic Republic of the Congo is taking an important step towards improving the country’s national grid, which suffers frequent outages.

An interview with Eric Mbala Musanda, Managing Director of the national electricity company Société Nationale d’Électricité (SNEL), on modernization of the Inga II hydropower station in the Democratic Republic of the Congo and its significance for this African country.

Mr. Mbala Musanda, you manage one of the largest hydroelectric power plants in Africa. Does this make you proud?

Eric Mbala Musanda: Yes, of course it does! We play a decisive role in the energy supply for the entire Democratic Republic of the Congo. The prosperity of our society and the growth of our industry depend on this hydroelectric plant. We work in the interests of the entire nation.

Can you describe the importance of Inga II and of hydropower in general?

Inga II contains eight 178 MW units, and its installed capacity of 1,424 MW makes it the largest and most powerful plant in the entire Democratic Republic of the Congo. Backed up by the Inga I and Zongo plants, it ensures the power supply to Kinshasa, capital of the Democratic Republic of the Congo, to the provinces of Bandundu, Haut-Lomami, Lualaba, and Haut-Katanga, as well as to Brazzaville, capital of the Republic of the Congo. Additionally, we provide electricity to a neighboring region in Angola.

How does Inga II interact with the other hydropower plants?

Inga II plays a central role in SNEL’s power grid. It provides almost twice as much electricity as all of the other plants combined and is therefore extremely important.

What was the state of the plant before modernization?

Most of the components were outdated. The two Francis turbines, now renovated, had been shut down for years, and repairs were long overdue. The work carried out by ANDRITZ was mainly during the final phase; it enabled SNEL to recover 534 MW, with 356 MW in Units 21–22 and 178 in Unit 27.

Have these large-scale modernizations improved life for local residents?

Yes, in many ways. As part of the renovation project, several houses were built as a base camp to provide accommodation for experts in erection work supervision during the modernization phase. These buildings will be handed over to local authority housing when the work is complete. In addition, sports facilities were renovated, and the electricity and drinking water supplies were improved. The modernization project also provided work for many people in the region.

Efficient and powerful: Francis turbine at the Inga II hydropower station.

ANDRITZ HYDRO carried out full modernization of Inga II. How would you assess this cooperation?

ANDRITZ HYDRO had already installed equipment previously, namely control systems or turbine governors, as part of different SNEL projects, for example for Inga II, Zongo I, and Bendera. At the Koni plant, ANDRITZ HYDRO installed two new butterfly valves and oversaw their dismantling and reinstallion. We really valued the company’s experience. The fact that there were no workplace accidents during the entire project really convinced and impressed us.
At the end of the renovation phase, SNEL customers will have a reliable and high-quality power supply.

Has SNEL made any other investments in connection with its infrastructure?

Yes. At the Inga I plant, we are renovating three of the six units. At the Nseke plant, three of the four units have already been refurbished, and the fourth is in the process of being renovated. At the Mwadingusha plant, four units will be renovated (ANDRITZ HYDRO was chosen for this work at the end of 2016); and SNEL has already returned Unit 1 to the grid. Similarly, we’ve built the Inga-Kinshasa 400 kV high-voltage line and have begun renovating the Inga and Kolwezi converter stations. Renovation of the Inga-Kolwezi high-voltage direct current line has been completed. Furthermore, we intend to renovate the distribution network and provide electrification in areas without electricity in the city of Kinshasa.

What was the biggest challenge you faced in this project?

The biggest challenge we faced was safeguarding the energy supply while carrying out the renovation work within plants that were in operation. To do this, urgent work had to be carried out promptly on the units in service and on their ancillary facilities without affecting the supply of electricity to customers, and renovation work started on the units that were not in operation. The tender documents for the renovation and modernization work also had to include correction of design and implementation faults from the 1970s.

Are you happy with the progress of the Inga II project and with ANDRITZ HYDRO?

Yes, we are. We had to deal with some technical problems, particularly concerning the generator stator at Unit G21, which delayed the rest of the work. It was during this difficult stage in particular that we were able to properly appreciate the expertise and commitment of ANDRITZ HYDRO’s employees. Their proactive management of unforeseen and sudden problems was very impressive.

Were you able to balance these modernizations with such topics as protecting the environment?

With the Environmental and Social Management Unit (UGES), we set up a body in charge of environmental and social protection that worked directly with SNEL’s project coordination. We particularly had to avoid any waste that was hazardous to the environment. Consequently, asbestos removal work was carried out, for example, on old cables and alternators by the certified South African companies Focus Asbestos Removal Services and Democritus without endangering the health of workers or the local population and without using products that are harmful to the environment.

Eric Mbala Musanda
Managing Director
Société Nationale d’Électricité (SNEL)

Eric Mbala Musanda is an electrical engineering graduate and has been working for Société Nationale d’Électricité since 1982. He lives in Kinshasa, is married and the father of six children.
Intelligent sensors, analysis of large data volumes (big data), and computer-aided augmented reality are powerful tools for optimizing industrial processes. The OPP system (Optimization of Process Performance) developed by ANDRITZ PULP & PAPER detects anomalies and deviations in pulp and paper production at an early stage by analyzing production data. Sheet breaks in pulp and paper production can now be predicted before they occur. Customers can initiate counter-measures in order to maintain reliable production.
Fibria’s Horizonte 1 mill in Três Lagoas, Brazil, at night. For Fibria’s Horizonte 2 pulp mill, ANDRITZ is to supply the complete fiberline as well as the recovery island, including all relevant process steps.
ANDRITZ OPP, already used successfully in the market for many years now, has substantially improved production at the Aracruz mill: Productivity has increased, with significant savings in resources. As the illustration shows, this is mirrored in improvements for the customer in figures that are tangible and measurable.
Sustainably managed eucalyptus plantation in Brazil. The trunks of the trees are the raw material for Fibria’s pulp production.
An enormous stream of data flows during production of pulp and paper. ANDRITZ OPP analyzes this data and can thus simulate system conditions on the basis of tried-and-tested calculation models and predict adverse effects on production. OPP “learns” from this and optimizes production, as is shown by the blue line in the diagram. “Machine learning” by means of simulation makes a substantial contribution towards production reliability.
If the paper web breaks during the production process, production must be stopped completely in order to repair the damage. This costs time and money. With innovative systems like ANDRITZ OPP, production outages of this kind can largely be avoided.
A huge amount of data is produced during production processes. With modern computer technology, it is possible to understand and analyze the complexity and dynamics of this data and optimize the entire production process, as well as reducing adverse effects on production as best possible. ANDRITZ provides active support to its customers here.
Augmented reality applications are already part of the daily routine in the pulp and paper industry. They enhance supply and functional reliability in many industrial processes. ANDRITZ offers a series of IIoT solutions. At the Aracruz mill, augmented reality is being tested in parts of the bleach plant.
Many years ago, ANDRITZ developed a successful process that has been proven on the market to detect anomalies in pulp and paper production at an early stage by analyzing a large amount of production data. The so-called Optimization of Process Performance (OPP) system makes a substantial contribution towards optimization of the production process, for example by predicting and avoiding sheet breaks in the dryer.

Mr. Silveira, companies are confronted again and again with the challenge of increasing their productivity. What is Fibria’s approach here?

We have been working specifically on optimizing the processes in our mills for some time now. Here, we have tried various solutions, such as cloud and cognitive computing, big data analytics, and IIoT. As part of these efforts, we have been using ANDRITZ’s OPP system for many years.

What advantages does Fibria gain from these technologies?

Our processes have become much more stable, so our mills are available for a longer time and operations are smoother. We can increase productivity, lower operating costs, and reduce the level of pollution from industrial effluent. All in all, the technologies make a considerable contribution towards enhancing production reliability.

What is the role of OPP in this process?

Our factories are usually located away from the large cities. So if something is not working, it is difficult to bring the necessary experts to our facilities quickly. ANDRITZ OPP helps us with this: The system continually evaluates a variety of data to predict certain events and how production will evolve. In this way, we can detect potential failures before they occur. And if there are any problems, we can provide the information and data required quickly and easily to the employees on site.
How does it work exactly?

The system uses two core technologies: Smart sensors and big data. Smart sensors are mainly responsible for collecting the data. The ANDRITZ equipment is fitted with microsensors that measure pressure, temperature, vibration, flow, and signs of wear, for example, which is basically everything that can influence the paper production process and the lifetime of a machine. These data are collected and analyzed, which brings us to the second technology: big data. An analysis of the data shows us, for example, how a plant will react in two, three, or four hours.

How has OPP affected production?

Our processes have become much more stable; the availability of our equipment and machines has increased. And our spending on energy and chemicals has been reduced. In addition, we can react faster if we have to intervene in the production process. But generally, the need to do so is less frequent. For example: The OPP system allows us to estimate the whiteness of the paper one hour in advance. If the expected value does not match the default setting, we can make corrections in good time. This means that less waste is produced, and we can save resources and enhance productivity.

What are the advantages of this system over other comparable tools?

I think there are several factors that contribute towards its success: a local team with a great deal of specialist knowledge, good technical support, and performance-related remuneration. In addition, OPP is continuously developing further. It has potential. And OPP could be used at other critical points in the production process as well.

Was it very difficult to integrate the system into your factory production flows?

The biggest challenge was to convince the teams in the factories of the advantages and possibilities of the system. ANDRITZ’s task was to demonstrate that the system is really effective and contributes to a significant improvement in performance. Initially, we only planned to use OPP at our mill in Aracruz, but we were so pleased with the results that, in 2011, we decided to implement it in the other mills as well. OPP makes an important contribution towards improving our process control.

What plans do you have for IIoT applications?

We expect to be able to further increase efficiency and productivity due to faster processing and linking of data using augmented reality and big data. In addition to the tools mentioned, we are also working with data mining, fuzzy logic, and neural networks.

What do you expect here from ANDRITZ?

As a specialist in this field of knowledge, we expect process initiatives from ANDRITZ. This means that we would like to have solutions that do not arise simply from our specific needs, but also offer us completely new alternatives. ANDRITZ is a valuable partner for us in this respect.

Paulo Silveira
Industrial and Engineering Director
Fibria

»ANDRITZ OPP has made our processes more stable and increased our equipment availability.«
Innovative construction of lightweight vehicles is a decisive factor in the development of sustainable electric mobility and would not even be conceivable without high-strength steel grades. Sheet thicknesses for automotive parts with the same component properties can be reduced further by using new high and higher strength steel grades. With the innovative, lightweight technologies from Schuler, a member of the ANDRITZ GROUP, future-generation cars will not only be lighter, but also safer and more environmentally friendly. Another member of the ANDRITZ GROUP – ANDRITZ Soutec – is a globally leading manufacturer of welding systems for the production of laser-welded blanks, which are needed everywhere in car manufacturing targeting more safety and less weight.
Schuler’s innovative Smartline press forms components for electric motors out of 0.2 millimeter thick sheet metal. This reduces the weight of electric cars and the energy losses at the motor.
The Smartline blanks electric motor components out of the sheet metal up to four times a second at the VW plant in Kassel. The penetration depth of the die into the material remains constant at all times thanks to the dynamic penetration depth control system developed by Schuler. This ensures up to 30 percent less wear on dies.
In modern car manufacturing, as with this Schuler laser blanking line at the Mercedes-Benz plant in Kuppenheim, thousands of high-strength, weight-optimized car body parts are blanked every day out of extremely heavy aluminum coils.
The global materials market for cars is dominated by plastics, high-strength steel grades, and aluminum. The growth forecast for the next few years also shows that the most important lightweight materials in car manufacturing are high-performance steel grades at 14 percent, plastics at 5 percent, and aluminum at 0.6 percent.
Laser-welded blanks made of high-strength steel grades are needed everywhere in car manufacturing targeting more safety and less weight. With SOUTRAC (detailed view in the illustration), ANDRITZ Soutec offers a proven laser welding system for non-linear welds.
Schuler's Smart Press Shop showcases solutions for the digital future of forming technology: simulation and an electronic assistant provide support during production start-up, a Machine Monitoring System (MMS) enables comprehensive machine monitoring and the Service App can be used by clients to access competent assistance directly at the machine.
Plenty of room for expansion: The volume of the lightweight construction market in the transport sector is forecast to double from 70 billion euros in 2010 to 140 billion euros in 2020.
Electric cars are on the advance. And although this advance may be slow, it is unstoppable. Electric cars are essential for car manufacturers if they are to meet the increasingly stringent emission limits all over the world. Schuler can pave part of the way for them.

Manfred Van Nerum, Head of Schuler’s Drives & Generators business unit explains how.

Mr. Van Nerum, one moment the electric car is a shimmer of hope, and the next moment it is said to be overrated. Which of the two is correct?

It is true that there are not very many electric cars on the roads. But the numbers are increasing. And if the announcements made by almost all car manufacturers are correct, this trend will continue in the years to come. There are innumerable electric and hybrid cars currently in the planning.

Why is this?

One crucial reason is the ambitious limit values for consumption and CO₂ emissions – regardless of whether these limits apply in the USA, China, or Europe. They are virtually forcing car manufacturers to add more and more electrically driven vehicles to their fleets. In this respect, there is a good chance of electromobility seeing an investment boost in the next couple of years.

What can Schuler contribute to this?

Electromobility requires very thin sheet metal in order to reduce the weight of electric cars and the power losses at the electric motor as best possible and thus increase the vehicles’ range. However, these metal sheets are too thin for blanking with the old equipment because the presses do not have the precision of state-of-the-art plants. As a result, an older press has reached its limits as from a thickness of under 0.35 millimeters, depending on the application concerned. Comparison: The tip of a pencil is one millimeter thick.

Why must the sheet metal be so thin?

Thinner sheet metal can produce electric motors with lower power losses and higher efficiency. This lowers the motors’ power consumption. And they are lighter as well. All this improves the energy balance for electric vehicles. They can cover more kilometers with the same amount of electricity, and so their range increases.

And what role does Schuler play here?

With our Smartline press and its peripheral equipment, it is possible to blank motor components with a thickness of just 0.3 millimeters – even 0.2 millimeters are possible – for electric cars and to punch-bundle them automatically. That means that the sheets are bundled together mechanically right away in the blanking die to form a stable package – all at breakneck speed. The press runs at full load and with die weights of several tons at a stroke of up to 400 per minute, meaning that the press blanks rotor and stator motor components out of the sheet metal up to seven times a second.

Can you explain the part about punch-bundling please?

Punch-bundling means that the shape is not pressed into just one but into several sheets at once placed on top of one another, thus bundling the sheets together mechanically. This is particularly challenging with thin metal sheets because there
is not a lot of space availa-
ble for pressing as the mate-
rial is so fine. Finally, a robot
presses the sheet metal bun-
dles together once again and
prepares them fully automatic-
ically for the next production
stage.

What is so unusual
about this?

The trick here is the overall
constellation of the Smartline:
Firstly, we process very thin
metal sheets at high speed.
Secondly, we combine this
with precise control of how
deep the blanking press
is pressed into the sheets.
We call this dynamic pen-
etration depth control. The
machine provides real preci-
sion craftsmanship because
measurement and adjusting
take only a few hundredths
of a second. Thus, there is
much less wear on the dies.
It can be reduced by up to 30
percent compared to other
presses by using the Smart-
line. This makes a significant
contribution towards helping
our customers achieve their
cost efficiency goals as far
as possible.

And thirdly?

Thirdly, the production
sequences in the Smart-
line are longer because the
die also suffers less wear in
the press. On average, the
press operates for one to
two hours longer per day.
On the one hand, our cus-
tomers earn more money as
a result because the press
is never at a standstill. And
on the other hand, they save
money because the die is in
use in the press for a longer
time. By the way, there is even
a fourthly.

And that is?

Particularly long dies can be
used in the Smartline. Pre-
viously we had lengths of 2
or 2.2 meters, and today we
have arrived at lengths of 2.8
meters in some sectors. The
press table at the VW plant in
Kassel is actually 3.3 meters
long. And it still works with
a precision tolerance of one
hundredth of a millimeter.

Why is this length
needed?

The geometry of the motors
for electric vehicles is becom-
ing more and more compli-
cated. Engineers try to get
the most out of the motor.
For example, magnets are
inserted at various points
in order to enhance perfor-
ance. It is relatively com-
licated to blank these geo-
metries. We have to maintain
certain sequences. It begins
with the rotor bore and ends
with blanking of the metal
sheet. The more complex
the cutting and blanking
must be, the more sequences
are needed. And the more
sequences needed, the longer
the tool and, therefore, the
press will be.

What do your customers
think about it – you
mentioned the VW plant
in Kassel?

The Smartline has been oper-
ating there since August 2014,
and the feedback we receive
is very positive. One sta-
tor and six rotor lamination
stacks leave the press every
five minutes for the electric
motors in the e-Golf and e-up!
models.

What plans do you
have for the future of
the Smartline?

We will also be offering a
new, lighter version as from
the first quarter of 2017.
The higher weight originally
served to allow blanking with
as little vibration as possible,
also at very high speed and
a stroke of up to 600. But a
stroke of 400 is still very fast,
and that is more than enough
for our customers because
most of these large dies are
operated at a stroke of 300
to 320. A little less weight
doesn’t do any harm – even
on a press.

Manfred Van Nerum
Head of the
Drives & Generators
business unit
Schuler

»Wear on the die can be
reduced by up to 30 percent
with the Schuler Smartline.«
Occupational safety has the utmost priority for ANDRITZ and its customers worldwide. ANDRITZ has implemented an innovative health and safety concept – with huge success – together with the Brazilian paper producer Klabin during construction of the new pulp mill in Ortigueira.
The new pulp mill in Ortigueira is the largest investment ever made by Klabin. The mill commenced operations in the spring of 2016 and produces 1.5 million tons of short and long fiber pulp per year. The main equipment and systems were supplied by ANDRITZ.
ANDRITZ employees manufacture and install extremely heavy parts all around the world. It is ANDRITZ’s declared goal to create a safe working environment and systematically eliminate any risks occurring as best possible, for example with safety devices, organizational safety measures, or by providing personal protective equipment.
The puma is a respected and admired animal in North and South America because of its speed and agility. It lives in the protected natural forests surrounding the Klabin mill and was spotted many times in Ortigueira, also during the feasibility study for the mill. Thus, “Puma” was the obvious choice in naming this project.
ANDRITZ launched an extensive global safety initiative in 2016. A central part of the company's strategy is accident prevention, for example with clear and prominent warning signs in the workshops and on job sites, in order to guarantee occupational safety in mills and factories.
Great appreciation and esteem for excellent occupational safety: The successes achieved and initiatives taken during construction work were certified in writing for ANDRITZ by Klabin.
There are many different kinds of safety requirements in production or on job sites – and also many different kinds of protective clothing.
Zero stands for zero accidents at work – worldwide. ANDRITZ has set itself the ambitious goal of reducing the number of accidents further and ultimately becoming accident-free.
ANDRITZ has supplied major production equipment and technologies for the new mill built by Brazil’s largest integrated pulp and paper producer Klabin. The two companies have developed a health and safety concept together where the topic of safety at work was raised to a globally leading level for such large projects.

In the following interview, Francisco Razzolini, Director of Projects and Industrial Technology at Klabin, explains what the essential elements of the concept were and how extensive the planning for safety at work had to be for the Puma Project.

Mr. Razzolini, you have just completed a mammoth project in building your new pulp mill in Ortigueira in the Brazilian province of Paraná. Can you give us a brief insight into the dimensions of this project?

The size of the project is demonstrated, for example, by the fact that we have installed around 40 percent more technical equipment than in a normal eucalyptus pulp mill with a single line. We installed four debarking plants alone, two complete fiberlines, a large energy supply unit, as well as a processing unit for fluff pulp – all in just 24 months, from the drawing board to completion of the plant.

How many employees were involved in the building project?

At absolute peak times we had 12,000 people working on the construction site. In addition, we built two new paved roads, 23.5 kilometers of railroad track, and laid 100 kilometers of power lines in order to connect the plant up to the existing power grid. All in all, 40,000 people were involved in the course of the entire project. It is not without good reason that the mill was the largest investment in Klabin’s 118-year history.

How important is safety at work?

Especially in the context of its employees, safety ranks at the top of the list for Klabin. So, of course, it also had top priority here. Needless to say, with a project the size of this mill and so many people present on site, this topic is very complex.

What do you mean exactly?

We had to juggle a whole range of partners, some of whom came from different countries and branches of industry. Of course, Klabin goes by the legal requirements in Brazil, which we then have to harmonize for this kind of project with colleagues from ANDRITZ and the many subcontractors. We were able to achieve this by always consulting all those participating in the project.

What effect do the various corporate cultures and national languages have on collaboration?

They present an additional challenge in a project of this size. However, we were able to reconcile all these influences by applying clear rules and in the process of joint
coordination taking place every day, where we assessed the differences between the project partners at an early stage and made adjustments accordingly as far as possible.

What does this involve specifically in the field of occupational safety?

The concept was drawn up by a large team. In the preliminary planning stage, we put together a manual of safety regulations and presented it to all of the companies involved. Each company was then responsible with its own team for the safety of its employees and those of its respective subcontractors, with overall supervision by the Klabin team. At the same time, the so-called Contractors’ Security Committee was created to ensure that the regulations were obeyed. In parallel, we set up a broadly based program called “Safe Puma Project” together with ANDRITZ and other contractors in addition to all the technical activities.

How did you involve the employees in this project?

We included them in many of the measures at an early stage. To achieve this, all of the professionals were acquainted with the basic safety rules in the very first phase before any work began on site. The teams of each of the companies taking part in the project received comprehensive training, and each work team attended a daily safety briefing. Safety audits were carried out with the subcontractors on all work fronts throughout the entire engineering and building phases. And in order to provide greater motivation, there were also awards for employees that achieved particularly positive results in occupational safety as a part of the Safe Puma Project.

How successful is the new safety concept?

With ANDRITZ, we have had one of the best performing companies in the safety and environmental sector at our side. We developed this successful concept together. ANDRITZ implemented the regulations and Klabin’s new safety policy very well, also ensuring that these regulations were adopted by its subcontractors. We can be proud of the result: In spite of the huge size of the project, we had neither fatalities nor serious accidents on the site. We also intend to keep up this excellent performance in long-term mill operations.

What have you and ANDRITZ learned with and from one another?

We have realized even more that safety at work must be a fundamental component right away in the early planning phase. A clearly defined structure is essential. In addition, all levels of a company’s hierarchy and all companies involved must commit to it.

Would you take a different approach the next time when planning a safety concept?

Only to a very small extent. In order to simplify the development of a complex safety concept, we would probably transfer more responsibility in future to the companies taking part in the project. It is generally the larger companies that have built up better structures than small sub-contractors to deal with occupational safety. But that doesn’t change our opinion: Together with ANDRITZ and other suppliers, we have achieved our best result ever in terms of safety – we are more than satisfied.

»With ANDRITZ, we have had one of the best performing companies in the safety and environment sector at our side.«

Francisco Razzolini
Director of Projects and Industrial Technology Klabin

Francisco Razzolini is Director of Projects and Industrial Technology at Klabin.
Dear Ladies and Gentlemen,
dear Shareholders, dear Colleagues,

By and large, we can be satisfied with our business development in 2016, considering the unchanged difficult economic conditions overall. As in the previous year, the emerging economies in Asia and South America did not provide any sustained impulses for global economic growth during the reporting period. China and India saw much more moderate growth compared to the boom years in this region, and the recession persisted in Russia and Brazil. While the United States continued to drive the global economy once again in 2016, growth in the eurozone remained unchanged at a very moderate level.

In this challenging economic environment, we were able to achieve – in my opinion – a good order intake of just under 5.6 billion euros, although this figure is below the record levels of the preceding years. Nevertheless, this provides a solid order backlog for 2017. We were able to maintain our market position – and even improve it in some divisions – in all of our business areas, despite intense competition. And we also succeeded in increasing our profitability compared to the previous year in spite of the decline in sales and the adverse market conditions in some places.

As far as our goals for 2016 are concerned, we were able to put all important measures and planned projects into practice. One major focus was certainly the reorganization work at our subsidiary Schuler. Here, we have implemented most of the operative steps aimed at optimizing production capacities and eliminating redundant organizational structures resulting from the acquisition of Müller Weingarten. We are confident that we will be able to conclude all the remaining measures by the autumn of 2017 at the latest. In addition, we have launched and implemented extensive measures for structural improvements in the HYDRO and SEPARATION business areas.
Another very important undertaking for the ANDRITZ GROUP was the internal project launched in 2015 to improve our performance in the execution of large, complex projects and make the project execution process itself as efficient as possible. The measures implemented during this project to improve the processes are showing initial positive results, for example, optimization of the extremely important first one hundred days of order execution. We have made good progress in other critical processes, such as cost calculation and project kick-off, as well as in standardizing processes and tools. Our customers appreciate and want a standard approach and a coordinated procedure within the Group for the processes involved in project execution. We already have something to show for our efforts, but there are still many things that we can improve. Some of the more problematic projects have already been concluded in the meantime to the full satisfaction of our customers.

As far as safety at work is concerned, we have introduced a number of measures to further reduce the number of accidents, with the overall goal of being accident-free throughout the ANDRITZ GROUP. The focus currently lies on workshops with above-average, high accident figures and on job sites. In collaboration with customers and installation companies, we create concepts to minimize the risks for our employees on job sites. We are well on the way to achieving our goals here.

»The focus of our measures is on generating internal growth. IIoT will play a very significant role here.«

In 2017, we do not expect any significant changes in the general environment in the markets we serve and thus anticipate good project activity at the same level as the previous year. The measures we take will thus focus on generating internal growth. IIoT will play a very significant role here. We have noted a sharp rise in interest by our customers in so-called “smart” products and technologies that help them to achieve their goals in terms of efficiency and profitability. ANDRITZ has had intelligent solutions for many years that are used successfully on the market,
such as the tried-and-tested Optimization of Process Performance system used in the pulp and paper industry. In the future, OPP will also be used in the other ANDRITZ business areas – the respective development work is already in progress. Other areas of focus are “smart sensors,” compact and wireless sensors, as well as data reduction and analysis (big data). Alongside this, we want to offer customers of all ANDRITZ business areas a modern and convenient system for ordering spare parts.

However, we shall – as always – also be reviewing opportunities for external growth in 2017 by acquiring companies that complement or extend our product and service portfolio. In 2016, we acquired two promising companies – Yadon and Aweba – who will help tap into new growth markets and customer groups for Schuler in the medium term and thus also create organic growth. Prompt integration of both companies is one of our most important objectives for 2017. Besides creating the conditions in which to continue the Group’s long-term growth, one of our main goals in 2017 is to increase profitability in those divisions with below-average performance so far. We want to achieve sustained profitability (EBITA margin) of seven percent for the Group and boost this figure towards eight percent in the medium term. On the cost side we shall continue our measures aimed at optimizing production capacities. I am confident that ANDRITZ will remain on the road to success in 2017 and trust that our shareholders will accompany us on this journey.

Wolfgang Leitner
President and CEO
EXECUTIVE BOARD AND SUPERVISORY BOARD OF ANDRITZ AG

The ANDRITZ AG Executive Board comprised four members as of December 31, 2016, all of whom have many years of experience and specialist know-how in their respective areas of responsibility.

In December 2016, the Supervisory Board of ANDRITZ AG appointed Mark von Laer as new Chief Financial Officer as of March 1, 2017. Thus, the Executive Board will comprise the following five members as from March 2017:

( from left to right )

Joachim Schönbeck
PULP & PAPER (Capital Systems), METALS, as well as Group-wide Quality and Safety Management

Wolfgang Leitner
President and CEO
Group functions: Information Technology, Human Resources Management, Corporate Communications, Investor Relations, Internal Auditing, and Manufacturing Management

Humbert Köfler
PULP & PAPER (Service & Units), SEPARATION, and Group Procurement Management

Wolfgang Semper
HYDRO and Group-wide AUTOMATION

( not present in the photo )

Mark von Laer
Central Group functions: Controlling, Treasury, Order and Project Financing, Legal Matters, and Compliance

The ANDRITZ AG Supervisory Board consists of six members elected by the Annual General Meeting and three members delegated by the Works Council.
THE 2016 FINANCIAL YEAR AT A GLANCE

Solid business development in a still demanding economic environment.


Order intake by region 2016 (2015)
The order intake in 2016 amounted to 5,569 million euros. (2015: 6,018 million euros)

Employees by region at the end of 2016 (2015)
ANDRITZ had 25,162 employees in 2016. (2015: 24,508 employees)
Order intake

The Group’s order intake amounted to 5,569 MEUR and was thus 7.5 percent lower than the previous year’s reference figure (2015: 6,018 MEUR). While the METALS business area was able to increase its order intake compared to the previous year, due above all to first-time consolidation of the two Schuler subsidiaries Yador and Aweba, order intake in the HYDRO and the PULP & PAPER business areas declined – in some areas quite significantly. The SEPARATION business area saw more or less stable development in its order intake compared to the previous year.

Developments in detail:

<table>
<thead>
<tr>
<th>Business Area</th>
<th>Unit 2016</th>
<th>Unit 2015</th>
<th>+/-</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYDRO</td>
<td>MEUR</td>
<td>1,752</td>
<td>1,835</td>
</tr>
<tr>
<td>PULP &amp; PAPER</td>
<td>MEUR</td>
<td>2,094</td>
<td>2,196</td>
</tr>
<tr>
<td>METALS</td>
<td>MEUR</td>
<td>1,652</td>
<td>1,718</td>
</tr>
<tr>
<td>SEPARATION</td>
<td>MEUR</td>
<td>594</td>
<td>628</td>
</tr>
</tbody>
</table>

The EBITA margin amounted to 7.3 percent and was thus below the previous year’s figure (7.9 percent) due primarily to the lower sales figure. At 8.7 percent, the PULP & PAPER business area again achieved the favorable figure of last year, which included project-related one-off improvements of around 40 MEUR. The EBITA margin in the METALS business area amounted to 7.2 percent and thus increased compared to the low figure for the previous year’s reference period (4.1 percent), which was negatively impacted by financial provisions of approximately 78 MEUR for optimization of the value chain at Schuler. In the SEPARATION business area, profitability amounted to 2.9 percent, thus remaining at an unsatisfactory level (2015: 3.6 percent). Net income (excluding non-controlling interests) amounted to 275 MEUR and was thus above the reference figure for the previous year (2015: 268 MEUR) in spite of the decline in sales.

Net worth position and capital structure

The ANDRITZ GROUP had total assets of 6,199 MEUR as of December 31, 2016 (December 31, 2015: 5,778 MEUR), and the equity ratio amounted to 21.7 percent (December 31, 2015: 21.0 percent). Liquid funds reached 1,507 MEUR (as of the end of 2015: 1,449 MEUR), while net liquidity amounted to 945 MEUR (as of the end of 2015: 984 MEUR).

Important acquisitions

Schuler AG, a member of international technology Group ANDRITZ, acquired AWEBA Werkzeugbau GmbH Aue, one of Europe’s leading toolmakers, and is thus further extending its activities in this business segment. AWEBA is based in Aue in the German state of Saxony and generates annual sales in the region of 60 million euros with around 600 employees. The company supplies international customers in the automotive supply and electrical industries, as well as in the mechanical and plant engineering sectors. The product portfolio includes dies for forming, cutting, and die-casting, as well as precision parts and die-related automation equipment. AWEBA complements Schuler’s product portfolio in metal-forming and extends the company’s existing activities in toolmaking.
For many years, the ANDRITZ GROUP has been pursuing a business strategy aimed at achieving profitable growth in the long term. ANDRITZ’s long-term goal is to obtain annual sales growth averaging five to eight percent and to increase profitability (EBITA margin) to eight percent in the medium term. The main cornerstones of this strategy are: creation of internal and external growth, technological and cost leadership, and global presence.

Long-term development of sales and order intake

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales (MEUR)</th>
<th>Order intake (MEUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>6,039</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>6,377</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>5,859</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>5,711</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>5,177</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>4,924</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>4,596</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>4,132</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>3,198</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>3,283</td>
<td></td>
</tr>
</tbody>
</table>

Average annual sales growth: +7%
Growth

In order to achieve the long-term sales growth target averaging five to eight percent annually, ANDRITZ continues to focus on organic growth and the acquisition of companies – just as in previous years. ANDRITZ invests around three percent of sales every year, including order-related work, in research and development of new products, with special focus here on IIoT. By offering smart technologies that create added value, ANDRITZ not only helps its customers to achieve their business goals as best possible, but also opens up new sales and growth opportunities in its business areas. Complementary acquisitions, i.e. purchase of companies with complementary products/technologies will continue to be an important cornerstone of ANDRITZ’s growth strategy. By integrating these companies into the Group, ANDRITZ not only creates important synergies, but also paves the way for these companies to achieve organic growth. The Group’s overall goal is to become a full-service provider with global presence in all business areas by developing its own products and acquiring other companies.

Technological and cost leadership

The ANDRITZ GROUP is one of the leading global suppliers in all of its business areas. In order to consolidate and further extend this position, it is essential for ANDRITZ to be the preferred technology supplier while still retaining a competitive cost structure. Thus, the ultimate goal is to offer customers cutting-edge technologies that help them to achieve their goals in terms of productivity, quality, resource and energy efficiency, and sustainability. At the same time, it is necessary to create a cost structure within the Group that secures ANDRITZ’s competitive position and continued existence in the long term. The main cornerstones here are ongoing cost optimizations and a manufacturing and location concept aligned to future market opportunities that take account of regional cost and competitive advantages. The ANDRITZ GROUP’s goal is to increase profitability and achieve an EBITA margin of eight percent in the medium term. In addition to the cost leadership targeted, this goal is to be achieved by means of planned sales growth and substantial expansion of service business from the current level of 32 percent to 40 percent in the long term.

Global presence

With a balanced mix of global and local presence, ANDRITZ can support its customers in achieving their goals in terms of productivity, profitability, and sustainability. It is thus one of the ANDRITZ GROUP’s main goals to continue extending its worldwide presence in order to utilize growth potential on the one hand, particularly in the emerging economies of South America and Asia, and on the other hand to be close to its customers in order to be able to offer the best possible service. Due to the planned further relocation of manufacturing capacities to emerging markets, ANDRITZ can profit from growth in these regions, but also be a strong impetus for economic growth and the labor market there.
THE ANDRITZ SHARE

Share price development

During the reporting period, the international financial markets were characterized by the continuing uncertainty with regard to development of the global economy on the one hand and by the UK’s vote to leave the European Union on the other hand. In this environment, the ANDRITZ share price rose slightly by 5.9 percent in the past business year. The ATX, the leading share index on the Vienna Stock Exchange, increased by 9.2 percent during the same period. The highest closing price of the ANDRITZ share was EUR 49.70 (April 20, 2016), while the lowest was EUR 38.69 (February 11, 2016).

Trading volume

The average daily trading volume of the ANDRITZ share (double count, as published by the Vienna Stock Exchange) was 317,558 shares in 2016 (2015: 355,821 shares). The highest daily trading volume was noted on June 17, 2016 at 1,298,738 shares and the lowest trading volume on December 27, 2016 at 98,064 shares.

Annual General Meeting

Jürgen Hermann Fechter and Alexander Isola were elected as members of ANDRITZ AG’s Supervisory Board for the maximum period stipulated in the Articles of Association (i.e. until the end of the Annual General Meeting deciding on the discharge for the 2021 business year).

Share buy-back program

The Executive and Supervisory Boards of ANDRITZ AG resolved to make use of the authorization pursuant to the resolution by the 109th Annual General Meeting of the company on March 30, 2016, to buy back shares according to Article 65 (1), line 8, of the Austrian Corporation Act. Pursuant to the resolution by the Annual General Meeting, up to ten percent of the total shares of ANDRITZ AG can be acquired by purchase between April 14, 2016 and September 30, 2018.

Treasury shares

In 2016, a total of 287,000 treasury shares were purchased under the share buy-back program approved by the Annual General Meeting (details available at www.andritz.com).
Long-term dividend policy

ANDRITZ pursues a dividend policy oriented towards continuity. Depending on business development, ANDRITZ’s goal is to pay out around 50 percent of the profit per share in the business year to the shareholders and to increase this payout ratio step-by-step over the next few years to around 60 percent.

Stable and well-balanced shareholder structure

ANDRITZ has a stable and well-balanced shareholder structure. Custos Vermögensverwaltungs GmbH owns 25 percent plus one share, while Cerberus Vermögensverwaltung GmbH holds 0.77 percent. Some of the shares in these companies are held directly and some indirectly by Custos Privatstiftung and by Wolfgang Leitner, President & CEO of ANDRITZ AG, respectively. Certus Beteiligungs-GmbH, whose shares are owned indirectly by Manile Privatstiftung, holds 5.721 percent. With a free float of just under 70 percent, national and international institutional investors and private investors make up the majority of the shareholders. These include FMR LLC (Fidelity Management & Research – a Boston, Massachusetts-based investment company founded in 1946) holding 5.01 percent, The Capital Group Companies, Inc. (an investment firm founded in 1931 with headquarters in Los Angeles, California) holding 3.96 percent, and BlackRock Inc. (an investment company established in 1988 and based in New York City, New York) holding 3.90 percent. The majority of institutional investors come from the UK, the USA, Austria, and Germany, while most private investors are from Austria and Germany.
Transparent communication policy

Continuous and transparent communication with institutional and private shareholders has been the focus of investor relations activities since the ANDRITZ IPO in 2001. The ANDRITZ Investor Relations team was chosen as the best IR team in Austria in a survey conducted in the European investment sector in which around 20,000 international investment fund managers and analysts took part with over 1.1 million votes. This very special award proves once more that ANDRITZ’s consistent communication policy based on transparency finds wide acceptance in the world of international finance.

In 2016, meetings were held with international institutional investors and financial analysts in Amsterdam, Austin, Berlin, Boston, Calgary, Chicago, Dublin, Frankfurt, Geneva, Linz, London, Melbourne, Munich, New York, Paris, Seattle, Stegersbach, Sydney, Tokyo, Toronto, Zurich, and Zürs. ANDRITZ gave presentations for private investors at various roadshows in Austria. In addition, numerous conference calls were conducted to provide information on the main key figures and on the company’s operative and strategic development.

Broad coverage

There are currently 16 international banks and investment houses publishing analysis reports on ANDRITZ at regular intervals: Baader Bank, Berenberg Bank, Citigroup, Commerzbank, Deutsche Bank, ERSTE Bank, Goldman Sachs, Hauck & Aufhäuser, HSBC Trinkaus, Jefferies, J.P. Morgan, Kepler Cheuvreux, Raiffeisen Centrobank, Société Générale, UBS, and Warburg Research.
**Key figures of the ANDRITZ share**

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Earnings per share EUR</strong></td>
<td></td>
<td>2.69</td>
<td>2.60</td>
<td>2.04</td>
<td>0.64</td>
<td>2.35</td>
</tr>
<tr>
<td><strong>Dividend per share EUR</strong></td>
<td></td>
<td>1.50</td>
<td>1.35</td>
<td>1.00</td>
<td>0.50</td>
<td>1.20</td>
</tr>
<tr>
<td><strong>Payout ratio %</strong></td>
<td></td>
<td>55.8</td>
<td>51.9</td>
<td>49.0</td>
<td>78.1</td>
<td>51.1</td>
</tr>
<tr>
<td><strong>Price-earnings-ratio (based on closing price at end of year)</strong></td>
<td></td>
<td>17.73</td>
<td>17.33</td>
<td>22.40</td>
<td>71.23</td>
<td>29.66</td>
</tr>
<tr>
<td><strong>Equity attributable to shareholders per share EUR</strong></td>
<td></td>
<td>13.00</td>
<td>11.63</td>
<td>9.86</td>
<td>8.70</td>
<td>9.76</td>
</tr>
<tr>
<td><strong>Highest closing price EUR</strong></td>
<td></td>
<td>49.70</td>
<td>57.49</td>
<td>47.58</td>
<td>54.94</td>
<td>50.00</td>
</tr>
<tr>
<td><strong>Lowest closing price EUR</strong></td>
<td></td>
<td>38.69</td>
<td>38.14</td>
<td>37.00</td>
<td>37.93</td>
<td>32.83</td>
</tr>
<tr>
<td><strong>Closing price at end of year EUR</strong></td>
<td></td>
<td>47.70</td>
<td>45.05</td>
<td>45.69</td>
<td>45.59</td>
<td>48.54</td>
</tr>
<tr>
<td><strong>Market capitalization (as of end of period) MEUR</strong></td>
<td></td>
<td>4,960.3</td>
<td>4,685.2</td>
<td>4,751.8</td>
<td>4,741.4</td>
<td>5,048.2</td>
</tr>
<tr>
<td><strong>Performance %</strong></td>
<td></td>
<td>+5.9</td>
<td>-2.1</td>
<td>0.0</td>
<td>-9.4</td>
<td>+47.8</td>
</tr>
<tr>
<td><strong>ATX weighting (as of end of period) %</strong></td>
<td></td>
<td>9.0018</td>
<td>9.5864</td>
<td>11.6479</td>
<td>9.5082</td>
<td>10.6128</td>
</tr>
<tr>
<td><strong>Average daily number of shares traded² Share unit</strong></td>
<td></td>
<td>317,558</td>
<td>355,821</td>
<td>305,027</td>
<td>316,787</td>
<td>345,754</td>
</tr>
</tbody>
</table>

Source: Vienna Stock Exchange 1) Proposal to the Annual General Meeting 2) Double count, as published by the Vienna Stock Exchange

**Basic data of the ANDRITZ share**

<table>
<thead>
<tr>
<th>ISIN code</th>
<th>AT0000730007</th>
</tr>
</thead>
<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>Total number of shares</td>
<td>104 million</td>
</tr>
<tr>
<td>Authorized capital</td>
<td>none</td>
</tr>
<tr>
<td>Free float</td>
<td>&lt; 70%</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>
</tr>
<tr>
<td>Stock exchange indices</td>
<td>ATX, ATX five, ATX Global Players, ATX Prime, WBI</td>
</tr>
</tbody>
</table>

**Financial calendar 2017**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 3, 2017</td>
<td></td>
<td>Results for the 2016 business year</td>
</tr>
<tr>
<td>March 18, 2017</td>
<td></td>
<td>Record date Annual General Meeting</td>
</tr>
<tr>
<td>March 28, 2017</td>
<td></td>
<td>Annual General Meeting</td>
</tr>
<tr>
<td>March 30, 2017</td>
<td></td>
<td>Ex-dividend</td>
</tr>
<tr>
<td>March 31, 2017</td>
<td></td>
<td>Record date dividend</td>
</tr>
<tr>
<td>April 3, 2017</td>
<td></td>
<td>Dividend payment</td>
</tr>
<tr>
<td>May 4, 2017</td>
<td></td>
<td>Results for the first quarter of 2017</td>
</tr>
<tr>
<td>August 4, 2017</td>
<td></td>
<td>Results for the first half of 2017</td>
</tr>
<tr>
<td>November 3, 2017</td>
<td></td>
<td>Results for the first three quarters of 2017</td>
</tr>
</tbody>
</table>

The financial calendar with updates and information on the ANDRITZ share can be found on the Investor Relations page at the ANDRITZ web site: www.andritz.com/share.
SUSTAINABILITY

At ANDRITZ, sustainability is a decisive factor in order to be successful in the long term. Thus, it is an important element of ANDRITZ's corporate policy and strategy. It is reflected in every employee's day-to-day work and in the management systems and business relations of the ANDRITZ GROUP. All business decisions and measures follow the tenets and principles of sustainable development. ANDRITZ works continuously to improve and optimize its actions geared towards economic, ecological, and social sustainability and tries to satisfy the goals and expectations of the various stakeholder groups as best possible, thus creating added value.

Transparent and open communication of sustainability

ANDRITZ is convinced that only companies that do business in a socially sustainable and responsible way can achieve long-term success in the market. In order to ensure that the dialog with all stakeholders is characterized by transparency and trust, ANDRITZ is committed to a transparent and open communication and information policy. An important part of this policy is providing information and data relevant to CSR, which ANDRITZ has shown this year for the first time in the separate financial part of the Annual Report, which is available as a PDF document. This is a first step towards an integrated report.

Reporting according to the GRI, version G4

The ANDRITZ GROUP reports information relating to sustainability in accordance with the criteria of the Global Reporting Initiative (GRI), version G4 (core option). All information and figures relevant to CSR provided in the report relate to the 2016 business year and to the 2015 business year when shown in comparative presentations. The information covers the entire ANDRITZ GROUP, including all affiliates, unless otherwise stated. A list of the KPIs reported, including comments on these KPIs, is provided in the chapter headed “GRI index” in the consolidated financial statements.
Employees

A large part of ANDRITZ’s success derives from the know-how and commitment of its own employees. Hence, it is vital for ANDRITZ to be an attractive employer and tie well-qualified employees to the company for the long term. There are various measures supporting this employee retention policy. At all major locations, employee appraisals are conducted regularly between managers and employees to provide important feedback on work commitment, job satisfaction, tasks, workflows, the working environment, and career opportunities. Employee surveys also provide the company regularly with suggestions for improvements. Potential new employees are informed about employment opportunities at ANDRITZ by various means, including social platforms like Whatchado, LinkedIn, and Xing, as well as in company presentations at job information and career opportunity fairs. Existing employees benefit from global and local mentoring and training programs, and suitable career plans are developed for future managers. The new Group-wide intranet platform launched in March 2016 provides fast and easy access to the relevant information for each employee and improves communication and collaboration between the company’s locations. The employee magazine, published as a print edition twice a year, delivers up-to-the-minute information on the company for all employees worldwide.

Customers and business partners

In most cases, ANDRITZ remains in contact with customers throughout the entire life cycle of the equipment and products supplied, with new products and technologies also being developed in close collaboration with customers. In order to take account of customers’ needs as best possible, the ANDRITZ GROUP is present around the globe at over 250 locations. The Group’s service presence close to its customers is constantly being expanded. ANDRITZ’s commitment on technical and sustainability-related topics is also evident in the Group’s participation in well-known national and international organizations.

Suppliers

ANDRITZ attaches great importance to fair and long-term collaboration with suppliers, largely working with so-called “preferred suppliers.” An honest and transparent dialog when drawing up contracts, defining prices, and submitting invoices provides a good basis for long-term relations with a supplier. The minimum requirements for this collaboration are defined in the Supplier Code of Conduct and form an integral part of every contract.

Shareholders

The top priorities in ANDRITZ’s investor relations activities are equal treatment of all shareholders as well as transparent, detailed, and simultaneous information to all market players. This includes regular participation in international investor conferences and meetings with national and international private investors, financial analysts, and institutional investors.
Press and the media

The company’s main press and media activities and goals include communicating regularly with representatives of the press, publishing press releases and technical articles, holding press conferences, and communicating information at times of crisis. The main goals here are transparency, fast reactions, and providing detailed answers to individual queries. In addition to its annual and quarterly reports, ANDRITZ also publishes customer magazines and other image and product brochures to meet the information needs of all stakeholders as best possible. Similarly, the information appearing on the company web site has high priority.

Science and research

ANDRITZ’s research and development work is conducted within an international network of research partners. Collaboration with universities is important not only for basic research on new technologies, but also in recruiting qualified employees.

Governments and authorities

Since ANDRITZ operates globally, the Group’s business activities are subject to the laws of a number of different countries in such areas as export controls, export licenses, and trade restrictions. For ANDRITZ, obeying the law has the highest priority and is also stipulated in various compliance guidelines.

Non-governmental organizations (NGOs)

In the past, ANDRITZ was criticized by NGOs, in some cases in an unprofessional and actionistic manner, and called upon to withdraw from individual contracts, primarily in connection with the supply of technologies and systems for the production of pulp or generation of electricity from environmentally friendly hydropower. ANDRITZ was and still remains open to a dialog with NGOs, provided that this dialog is based on facts and conducted in an objective manner. The company takes concerns about individual projects very seriously and is scrupulous in analyzing all the facts surrounding a project before deciding to take part in and pursue it. ANDRITZ takes best possible account of local social, ecological, and political circumstances, but does not pursue any political goals or support political campaigns.
Pursuant to the GRI standard G4, ANDRITZ has prepared a materiality analysis. Based on the ISO 26000 guideline, the manual for corporate social responsibility, the main topics were identified in workshops by the Group-wide CSR team in the spring and autumn of 2015. These topics were discussed once again in personal interviews with representatives of the relevant stakeholder groups in the autumn of 2016. As in the previous year, the topics of compliance, responsible corporate management, safety, and long-term customer relationships were rated as being particularly important for ANDRITZ.

Materiality matrix

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term partnerships with customers</td>
<td>Technical innovations / Sustainable product development</td>
<td>Compliance</td>
</tr>
<tr>
<td>Values and integrity</td>
<td>Integrated risk management</td>
<td>Healthy and safety</td>
</tr>
<tr>
<td>Requirements in environmental and climate protection</td>
<td>Diversity</td>
<td>Responsible management</td>
</tr>
<tr>
<td>Responsible use of resources</td>
<td></td>
<td>Supply chain management</td>
</tr>
<tr>
<td>Integrated management systems</td>
<td>Responsability of managers</td>
<td>Ensure “license to operate”</td>
</tr>
<tr>
<td>Knowledge management</td>
<td>Fair competition</td>
<td>Product responsibility</td>
</tr>
<tr>
<td>Training and education</td>
<td>Solutions for challenges arising from social change</td>
<td></td>
</tr>
<tr>
<td>Use of synergies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Values and integrity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Relevance for ANDRITZ

A: High  
B: Very high  
C: Extremely high
Disclaimer
Certain statements contained in the 2016 Annual Report and in the 2016 Annual Financial Report constitute “forward-looking statements.” These statements, which contain the words “believe,” “intend,” “expect,” and words of a similar meaning, reflect the Executive Board’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 2016 Annual Report and the 2016 Annual Financial Report contain assumptions and forecasts which were based on the information available up to the copy deadline on February 17, 2017. If the premises for these assumptions and forecasts do not occur, or risks indicated in the “Risk Management” chapter and in the management report in the Annual Financial Report 2016 do arise, actual results may vary from the forecasts made in the 2016 Annual Report and in the 2016 Annual Financial Report. Although the greatest caution was exercised in preparing data, all information related to the future is provided without guarantee.

Note
In order to improve readability, the present report does not contain any gender-specific wording. Any personal terms used relate to both men and women equally.


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