

Through the use of renewable energy sources and highly efficient technologies, Andritz can already ensure future-oriented electricity generation. Andritz machines secure the daily power supply for about 100 million people and help to save approximately 23 million tons of CO<sub>2</sub> annually.

During the last few years, the market for hydro-power equipment has been driven by the strong replacement investments in industrialized countries since most of the hydropower infrastructure has surpassed its useful lifetime, as well as by the higher environmental awareness and energy needs in the fast growing emerging markets. According to renowned market researchers, this trend should continue during the next few years.

In the **Rolling Mills and Strip Processing Lines Business Area**, conserving raw materials and minimizing emissions is the driving force of one of the core process areas. Andritz acid recovery and regeneration systems completely recycle the acids used in the pickling process. The latest Andritz technology provides a zero-effluent process for mixed acids. More than 99% of the acids are recovered and can be reused. All Andritz process lines employ technologies to substantially diminish or completely eliminate the emission of substances into the environment. In particular, Andritz has developed technologies to substantially reduce the emissions of NO<sub>x</sub> from waste gas streams in furnaces and pickling lines.

The **Environment and Process Business Area** supplies complete process lines which convert liquid sewage sludge into granulate. With a calorific value of approximately 10 to 13 MJ/kg, this granulate can be used as a substitute for fossil fuels in heat and power generation systems, thus reducing CO<sub>2</sub> emissions. With its own optimization of the combined drying/incineration process of using dried granulate as fuel and the energy generated in the incineration process as heat for the drying process, self-sustaining reduction of CO<sub>2</sub> is achieved. Directives and stringent environmental regulations are long-term major growth drivers in this Business Area, especially in the U.S. and Europe.

The **Feed and Biofuel Business Area** is the world market leader for plants and systems for the production of environmentally friendly biofuel pellets out of renewable materials, such as wood and agricultural by-products. In this way, highly valuable fuels are generated from materials which would otherwise have to be disposed of, and the effect on CO<sub>2</sub> emissions is neutral. Andritz also supplies pelleting equipment for industrial and household waste. The pellets produced offer an environmentally friendly alternative to fossil fuels in heating power plants.

## SOCIAL SUSTAINABILITY

Globalization creates economic growth and new jobs – both in the developed world and, more importantly, in the developing regions. New jobs provide more people with a living and amenities, and also bring along training, thus ultimately creating entrepreneurship. Sustainable enterprises must aim to support free, open markets in stable societies and a fair distribution of the benefits.

Andritz has a strong commitment towards the sustainable development of social life in emerging markets. For example, in the fast growing emerging regions such as Brazil, China, and India, Andritz has created new jobs by establishing engineering, production, and service sites. The number of Andritz employees working in emerging markets has increased from 50 in the year 2000 to the current total of over 2,400, thus contributing to the social welfare and well-being in these countries. This was not achieved by shifting jobs from Europe to Asia; Andritz also increased the number of jobs in Europe during that time.

During the last ten years, Andritz delivered the main equipment for several new greenfield pulp mills in South America, India, and China. These mills provide work for more than 3,000 people – many of these newly-created jobs requiring advanced technical or business skills – and more than 15,000 in the forestry and other supplier industries. Andritz targets suppliers who are equally committed to economic, environmental, and social stewardship.

## Andritz implements the following measures to achieve economic growth and ecological balance:

- Developing and offering technologies that prevent pollution in the first place.
- Developing processes that use the by-products of one process as raw materials for another, thus minimizing waste.
- Offering new services which allow more efficient utilization of labor and raw materials within a customer's plant.
- Collaborating with customers to better understand their requirements for sustainability and aligning Andritz's business processes with these requirements.
- Further developing sustainable and environmentally friendly products.
- Operating the business in a socially responsible manner.
- Giving preference to suppliers that share these commitments to sustainability.

## Investing in people

Corporate success is strongly dependent upon the competence and commitment of employees. Andritz funds the professional development of its employees. Human Resources management, with issues such as staff development, leadership, and management responsibility, is given top priority. A successful management training program ('Management Challenge') has been an integral part of human resources development for several years.

In staff development, Andritz is increasingly focusing on the promotion of technical careers, particularly with regard to female technical graduates. An important initiative in this respect is the new company kindergarten at the Graz site, which offers flexible, reliable child care, and supports young mothers in improving their work/life balance. →



In 2007, Andritz established a company kindergarten at the Graz site to support the work/life balance of its employees.

**Mutual benefit**

Young, fast growing companies in developing countries, their employees, and management all benefit from the experience of well-established Andritz companies in Europe. Management of Andritz affiliates by experienced local executives is one of the most important organizational principles in the Andritz Group. Whether in global Competence Centers or in local Sales and Service organizations, the management acting in these Andritz companies has often acquired its specific technical and product-related knowledge in the Andritz Group's Centers of Competence, preparing them well for their leadership functions. Wherever Andritz has the goal to further broaden the competence and enlarge the capacity of the Group's companies and activities, Andritz will strengthen local management responsibility.

**Active communication and education**

As part of its endeavors for a safe and sustainable environment, Andritz pursues an active information policy to communicate with authorities and stakeholders. The policy is based upon transparency and trust. One example of Andritz's information activities is the annual 'Waste Management Report' for certain locations. The aspects of ecology are an integral element in training and education programs for Andritz employees.

Employees are encouraged to contribute their knowledge and experience. One instrument is the 'Suggestions for Improvement' area in the Andritz Intranet. Cooperation with the employees' representatives is yet another principle at Andritz. Relevant issues are resolved in close collaboration with these representatives.

**Health and safety**

Andritz invests considerably in the health and well-being of its employees; their health and safety at work are major concerns. Andritz provides modern and safe equipment, clothing, tools, and accessories for the protection of its employees. Safe procedures are developed, documented, and enforced for all employees working in manufacturing facilities or at customer locations.

**Social sustainability measures of Andritz's customers**

Most Andritz customers have a strong commitment towards sustainability. Their sustainability strategy is based on implementation of the best environmental technologies and practices, strong social commitment, and active dialog with all stakeholders. This results in significant investments in infrastructure, healthcare, and education of the people and communities where Andritz's customers operate. In addition, many new jobs for local workers, sub-suppliers, and other industries are created, thus improving the standard of living of several thousand people. ○