# ACTING RESPONSIBLY FOR A SUSTAINABLE FUTURE

Sulzer aims to be recognized for its leading technologies and services as well as for delivering innovative and sustainable solutions. The company continued its emphasis on acting responsibly and on supporting its customers in shaping a sustainable future.





# FACTS AND FIGURES



In 2014, the voluntary attrition rate (VAR) amounted to 7.2 % (2013: 7.0%).



The accident frequency rate (AFR) was 2.6 cases per million working hours in 2014 (2013: 3.2). Thus, Sulzer exceeded its target of 2.7.



Energy consumption increased by 10% to 37 GJ per 1 000 working hours compared with last year (2013: 34 GJ/1 000 working hours).

0.17

Hazardous waste per 1 000 working hours increased by 125% to 0.17 tons in 2014 (2013: 0.08t/1 000 working hours).

# Innovative Technology for Clean Water and Renewable Energy

To become a leading equipment and service provider, Sulzer maintains a wellstocked innovation pipeline. The company partners with customers, suppliers, industry members, and universities to develop new solutions that maximize efficiency, save energy, and address global needs.

During Sulzer's 180 years of industrial history, technology has always formed the company's DNA. Maintaining technology leadership in its fields remains an integral strategic priority for Sulzer. In 2014, the company invested CHF 76 million in research and development (2013: CHF 71 million), which is 2.4% relative to sales (2013: 2.2% of sales). There were 36 patents filed in 2014.

### Addressing the needs of the water market

The company launched a series of new products in 2014. In Sulzer's key markets, but especially in the water business, there is great potential and demand for more energy-efficient solutions. In many regions of the world, the increasing lack of clean water is a pressing problem. Seawater desalination is an important means of providing a sustainable supply of clean water. These days, the market trend is turning away from traditional technologies based on evaporation/distillation towards reverse osmosis. It needs much less energy and is, in addition, more eco-friendly. Sulzer provides pumps for reverse osmosis processes, covering the full range for medium-to-large plants in this segment. Recently, the company has developed new high-pressure feed pumps. They have been designed especially for reverse osmosis plants and will be introduced in 2015 (see www.sulzer.com/MBN-RO or www.sulzer.com/MSD-RO).

#### Maximizing efficiency without compromising flexibility

The oil and gas industry requires high-performance distillation columns. In many industrial applications, however, distillation towers consume a large amount of energy. The development of energy-saving mass transfer technologies is therefore becoming more and more important. Sulzer introduced a new generation of trays in 2014—the UFMPlus<sup>™</sup> and VGPlus<sup>™</sup> (see www.sulzer.com/ufmplus-vgplus). These new trays substantially improve distillation efficiency and capacity (up to 30% higher than conventional trays) without compromising the operating range and flexibility of the column. The UFMPlus<sup>™</sup> and VGPlus<sup>™</sup> chordal downcomer trays save energy, which results in a reduction of both operating costs and capital costs for customers.

### Extending lifetime of products with new service solutions

Sulzer is not only concerned with innovation on the product side, but also continuously works on new service solutions. For example, the company designs and manufactures gas turbine replacement parts that are compatible and interchangeable with the original equipment. In this way, Sulzer reduces in-service issues as well as unnecessary expenditures while offering the required flexibility demanded by today's market. Ultimately, this extends the lifetime of and improves the performance of gas turbines and thus reduces maintenance time and costs for Sulzer's customers.

# Collaborating with industry partners to develop new solutions

Sulzer works with competent partners to meet global environmental and societal challenges. The company participates in the Separation Technology Research (STAR) Program, a joint industry project for research, systematic testing, and the qualification of separation equipment. Initiated by ExxonMobil, Shell, Chevron, and the non-profit organization Southwest Research Institute<sup>®</sup> in 2014, it combines the knowledge, effort, and resources of members in the energy sector.

# Supporting companies to save energy

Also in 2014, Sulzer concluded a long-term frame agreement for the upgrade and supply of modern water injection pumps with a major oil and gas company. In the context of its energy-saving program, the company installed Sulzer centrifugal pumps at its fields. Thanks to Sulzer's new, highly efficient, and energy-saving pumps, it was possible to reduce power consumption significantly. In addition, there was not a single failure requiring a major overhaul over the entire operation period.

**R&D** investments





"Everything we do is based on what the customer wants, not on what Sulzer thinks the customer should have."

Andy Smith, Operations Manager, Pumps Equipment Wastewater UK

#### Number of patents



### Joining forces with industry partners and universities

By joining forces with other players in the industry, Sulzer continuously extends its portfolio and presence. To become a major player for rotating equipment services in China's power market, the company signed a joint venture agreement with China Huadian Corporation. Also in 2014, Sulzer formed a joint venture with the Unaoil Group for the service of all rotating equipment for oil and gas and power customers in Southern Iraq.

In addition to collaborating with industry partners, Sulzer has maintained relationships with academic institutions such as the ETH Zurich (Swiss Federal Institute of Technology Zurich) and Texas A&M for a long time. Furthermore, the company runs a project on standardized impeller design together with the Lucerne University of Applied Sciences and Arts. Thus, Sulzer benefits from research on topics relevant to the company and gains access to a large talent pool.

# Managing extreme conditions for renewable power generation

The global power industry recognizes the demand for clean and dependable energy from renewable resources. Concentrated solar power (CSP) generation is a sustainable solution for global energy needs, but it poses extreme challenges to pump technology. The energy of the sun is used to heat up a fluid—either thermal oil or molten salt—which is then used to transfer or store heat.

The working temperature of the system is in the range of 500–600°C. The molten salt freezes at 220°C; when it is exposed to the environment, it becomes rock hard and blocks the pumps immediately. Hence, the requirements for the pumps are extremely complex. A further challenge is the material growth because weight and space are always critical elements on customers' sites. Sulzer developed a new pump for the hottest fluids; it will be launched in 2015. The molten-salt circulation pump SJT (VCN) is designed specifically to meet the extreme requirements and needs of the solar power industry.



# Supporting Customers in Reducing Their Ecological Footprint

Sulzer has substantial expertise in providing energy-efficient solutions. The company educates its customers on the safe and efficient installation and operation of equipment. Sulzer also systematically aims to reduce its own environmental footprint.

Customers increasingly pay attention to the environmental impact of products. This is true in all market segments—but particularly in the water market. Municipalities often ask for environmental data to make investment decisions. Sulzer uses standardized environmental product declarations (EPD, prepared in accordance with the International EPD<sup>®</sup> System (IES) framework), which supply its customers with transparent and comparable environmental data and costs over the entire product lifetime. EPDs provide information on the consumption of resources such as materials, water, and energy. Moreover, they offer a deeper understanding of the environmental impact such as  $CO_2$  emissions and acidification of water and soil (find further information online at www.sulzer.com/epd).

### Considering the entire life cycle of products and solutions

For Sulzer, the delivery of a product is not the end of the job. The company considers the entire life cycle of its products and solutions. It is important to avoid the unintended or incorrect use of the solutions, dispersion of chemical substances into the environment during maintenance work, or improper disposal of a product. Hence, Sulzer collaborates and consults with its customers to select appropriate technologies and materials. Moreover, experts show the customers how to install, operate, and maintain their equipment safely and efficiently.

# Harmonized reporting system for better coverage

Sulzer collects data systematically and continuously to report on both the environmental impact of its solutions and its own organizational footprint. In 2014, Sulzer consolidated its financial and extrafinancial data onto a single, harmonized, and centralized reporting platform. Thus, the number of assessed sites has grown, and there is better and more-consistent coverage across the company than in the past. Overall, 81% of total working hours report on environmental data. The coverage of occupational health and safety data is 98% (of total working hours), while 100% (of total working hours) report on HR data. However, the change of platform and the extended reporting scope make it difficult in the short term to compare this year's figures with those from earlier years.

# Decrease of total energy consumption

Total energy consumption decreased by 5% to 965814 GJ in 2014 (2013: 1017354 GJ), which reflects the changes in the product mix and the slight reduction in business activities. The disproportional reduction of working hours (whr) led to an increase of energy consumption by 10% to 37 GJ per 1000 working hours (2013: 34 GJ/1000 whr). Sulzer's energy mix is still dominated by electricity (60%), followed by gas (24%, including natural gas, propane, and butane), and district heating (7%).

In 2014, the total greenhouse gas (GHG) emissions remained stable at 97500 tons (t) CO<sub>2</sub> eq. (2013: 98200t CO<sub>2</sub> eq.). Sulzer did not meet its year-on-year rolling target to maintain or reduce GHG emissions in CO<sub>2</sub> eq. per 1000 working hours compared with last year's values. Due to the disproportional reduction of working hours and increased direct emissions, the greenhouse gas emissions increased by 15% to 3.8 tons CO<sub>2</sub> eq. per 1000 working hours (2013: 3.3 t CO<sub>2</sub> eq./1000 whr).

# Increase of hazardous waste and water consumption

In 2014, the total production of hazardous waste doubled from the previous year to 4442 tons (2013: 2282t). Hazardous waste per 1000 working hours also increased by 125% to 0.17 tons (2013: 0.08t/ 1000 whr). The upswing was caused by a defective dewatering unit for hazardous waste and changes in activities such as sandblasting. Furthermore, construction activities resulting in the disposal of contaminated soils as well as natural fluctuations in hazardous waste production added to the increase. The main contributors to hazardous waste are emulsions and mixtures of oil-water material (47%) and sandblasting residues (20%).

# Energy consumption\*



 Total energy consumption in GJ
 Total energy consumption in GJ without Metco

GJ/1000 working hours (whr)

GJ/1 000 working hours (whr) without Metco



Total GHG emissions in CO<sub>2</sub> eq. in t without Metco

t/1000 working hours (whr)

t/1 000 working hours (whr) without Metco

# Total greenhouse gas emissions\*

Total water consumption remained stable at 1581631 m<sup>3</sup> (2013: 1591611 m<sup>3</sup>), while the consumption per 1000 working hours increased by 15% to 61 m<sup>3</sup> (2013: 53 m<sup>3</sup>/1000 whr). This rise is due to the disproportional reduction of working hours. The main sources of water are groundwater (40%), municipal water (33%), and surface water (27%). About 65% of the water consumed is used for cooling purposes.

Sulzer experts educate their customers on the safe and efficient operation of the equipment they install. Sulzer monitors its own environmental footprint closely and compares its achievements with results from the past.



#### Hazardous waste\*



# Water consumption\*



- Total water consumption in m<sup>3</sup>
  Total water consumption in m<sup>3</sup>
  without Metco
- m<sup>3</sup>/1000 working hours (whr)

\*The charts display two different reporting scopes (2010–2013 vs. 2014). For more detailed information about scope and period of data, see Sustainability Report 2014 at www.sulzer.com/sustainability-report.

# Providing a Healthy and Safe Workplace while Fostering Employees

Sulzer attaches great importance to a safe workplace and to the health of its employees. The company intends to be a socially responsible employer and strives to offer its diverse workforce attractive opportunities for development.

Sulzer places considerable emphasis on providing a safe and healthy working environment and on empowering all employees to act safely. The company's Safe Behavior Program (SBP) is a cornerstone to achieving the long-term goal of zero accidents and towards establishing a preventive safety culture. In 2014, the focus of the program was on anchoring safe behavior at all operational levels. The SBP aspires to foster an attitude and understanding of safety ownership on all management levels. This will inspire employees to engage proactively in safety initiatives.

In 2014, the rate of certified sites remained high—78% of Sulzer's manufacturing and service centers were certified with OHSAS<sup>1)</sup> 18001 and/or SCC<sup>2)</sup> certification.

The accident frequency rate (AFR) and the accident severity rate (ASR) are the main safety indicators and relevant for bonus purposes. The AFR was 2.6 cases per million working hours in 2014 (2013: 3.2). Hence, Sulzer was able to exceed its AFR target of 2.7. The ASR decreased by 12% to 53.9 lost days per million working hours (2013: 61.4); however, the target of 38 lost days was not met. Sulzer is committed to further reducing the AFR and ASR and to improving occupational health and safety systematically across the company.

# Company-wide survey to collect ideas and thoughts

One of Sulzer's values is having committed people. The company's sustainable success is dependent on the commitment of all employees. Sulzer considers every employee as an individual with unique capabilities and competencies. Thus, the company aims to foster the well-being and employability of its people.

Sulzer encourages its employees to speak up. In autumn 2014, Sulzer launched a company-wide employee engagement survey (EES). The entire global workforce had the opportunity to give anonymous feedback on topics such as job content, working environment, leadership, values, and commitment. At 83.3%, the return rate was even higher than for the last EES, which was conducted in 2011 (81.4% return rate). The input will help Sulzer to improve its performance, leadership, and behavioral aspects systematically.

# Continued learning and development activities in times of change

Sulzer steadily develops its training programs for employees. In 2014, the company invested about 390000 hours (2013: 440000) in training. As a result, training hours per full-time equivalent (FTE) decreased from 30 hours in 2013 to 25 hours in 2014.

The company's leadership development initiative includes the Sulzer Management Training (SMT) for new leaders and the Leadership Program for Development and Impact (PDI). Centerpieces of the SMT are management basics as well as current leadership topics in order to support Sulzer's strategic goals and the ongoing reorganization. The PDI focuses on fostering the capabilities of the individual, the team, and the business. More than 40 participants in mixed groups from all business units in Europe, Middle East, and Africa (EMEA) passed the SMT in 2014. A total of 79 management system (LMS) in 2013. The global rollout of this cloud-based platform for training and development administration will continue in 2015. With the LMS, online training is becoming an integral part of the learning activities of Sulzer employees.

<sup>1)</sup>Occupational Health and Safety Assessment Series. <sup>2)</sup>Safety Certificate Contractors.

### Accidents\*

solutions



Sulzer's workforce is diverse in gender,

culture, and demography. The company believes that diverse teams create better

- Cases that last > 1 lost day due to occupational accidents
- Cases that last > 1 lost day due to occupational accidents without Metco
- Accident frequency rate (AFR) in cases per 1 000 000 working hours
- Accident frequency rate (AFR) in cases per 1 000 000 working hours without Metco



Sulzer provides its workforce with attractive career opportunities. Leadership development initiatives as well as online training courses support employees in their professional development. The company is able to fill leadership positions with internal talent to a great extent.

"We treat all people with respect, and we cooperate across the whole company. We believe that this respect fosters teamwork and commitment."

> Marius Baumgartner, Head of Group Human Resources

# Training hours\*



without Metco

- Training hours per employee (FTE) ----
- Training hours per employee (FTE) without Metco

\*The charts display two different reporting scopes (2010–2013 vs. 2014). For more detailed information about scope and period of data, see Sustainability Report 2014 at www.sulzer.com/sustainability-report.

# Geographical spread of employees



# Voluntary attrition rate\*



Number of voluntary leavings

- Number of voluntary leavings without Metco
- Voluntary attrition rate (VAR) in %

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    Voluntary attrition rate (VAR) in %
without Metco
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Sulzer encourages and empowers its employees to act safely in all circumstances. The company's Safe Behavior Program (SBP) is a cornerstone towards establishing a preventive safety culture. This means that employees understand how to behave safely and to look after each other's safety. In the long term, Sulzer strives to achieve a zero accident rate. In times of change, it is even more important to educate and train the workforce. For this reason, much cross-divisional and interdepartmental training took place. Consequently, a common understanding of each other's business activities was developed and cross-selling enabled. A clear indicator of Sulzer's successful efforts in fostering the skills of its employees is its internal leadership pipeline. In 2014, Sulzer filled 89% of leadership positions with internal talent.

# **Diverse teams to create better solutions**

Sulzer believes that diverse teams with different backgrounds drive innovation and create better solutions. Therefore, the company fosters diversity of gender, culture, and demography. In 2014, 14% of the workforce, 13% of all managers, and 12% of the Sulzer Management Group (top 100 managers) were female.

Sulzer engages 15 494 employees in over 150 locations and 41 countries. About 43% of employees work in the EMEA region, 29% work in the Americas, and 28% work in the Asia-Pacific region. This allows the company to be close to its customer base and to understand its specific needs. Sulzer's teams are also diverse in terms of age; long-term and experienced employees work together with apprentices and recent university graduates. Bringing together younger and older employees increases the likelihood of new approaches to a solution.

# Supporting one brand with strong values

Sulzer's values—customer partnership, operational excellence, and committed people—are the foundation of all interaction and business activities. They define who the company is and how it behaves.

Employees are passionate about the Sulzer brand. They are committed to representing the company with customers and partners. In 2014, Sulzer continued its efforts towards the one company strategy by integrating the divisional brands under the Sulzer umbrella brand, which is world renowned for experience, innovation, reliability, and quality.

