

# Sustainability Report

Within the range of relevant sustainability topics, the Siegfried Group focuses on compliance and quality, on Safety, Health and Environmental Protection (SHE), and on its responsibility as an employer.

## 1. Sustainability at Siegfried

In the life science industry, sustainability is more than just a buzzword. The activities of each individual market participant are monitored critically by the authorities, customers and consumers. Sustainability at Siegfried is a fundamental part of the Group's corporate strategy and it is integrated into our daily work. We regard the consistent integration of sustainability into our business model as an investment in the future, as only those companies that act with responsibility and are socially accepted will continue to be economically successful. Corporate growth shall be sustainable by showing responsibility toward society and the environment.

For Siegfried, sustainability is a key element concerning competition and reputation, and it thus plays a highly significant economic role. We acknowledge the concerns and needs of all stakeholders concerning transparency and honesty and take them seriously. The Board of Directors and the Executive Committee play an active role in reporting activities and are open to improvements that will support a high standard of quality. Siegfried addresses sustainability issues in various, important key guidelines and documents.

### Stakeholder Dialogue GRI102-42

Siegfried attaches great importance to regular contact and ongoing dialogue with its stakeholders at both global and regional levels. We consider the close involvement of our stakeholders to be an important element in our corporate behavior and we thus pursue the goal of creating a better mutual understanding and a basis of trust to enhance our partnership regarding Siegfried's work and products. The aim is to closely link the stakeholders' interests with the company's business strategy and to recognize trends early so that they can be incorporated into the strategy process.

We use a stakeholder map for a targeted and systematic stakeholder dialog. The categories of people listed therein are not complete. We have defined them based on their relevance and possible influence on our company. Regular stakeholder mapping also puts us into a position of recognizing attitudes and interests in order to adjust topics, messages and communication platforms to these.

Stakeholder activities include targeted dialog on the local, national and international levels, involvement in committees and professional workshops, comprehensive information programs, and participation in international initiatives and collaborations. Global stakeholder engagement is therefore of great importance. Stakeholder dialogue encompasses both communication and active interaction with individual target groups as well as issue-related multi-stakeholder events. We want to understand the different perspectives held by our stakeholders and to address them effectively.



### Materiality Analysis GRI102-46

Within the reporting for relevant topics, in a multilevel process through a materiality workshop in 2016, Siegfried identified the following topics as being central and consequently prioritized them for this report:

- Product Safety GRI102-47
- Waste and Contamination
- Fair Working Conditions
- Sustainability in the Supply Chain
- Occupational Health and Safety
- Local Population
- Energy and Climate Change
- Political Representation of Interest
- Corruption and anti-competitive conduct

These sustainability-relevant topics are shown in the following materiality matrix. Sustainability is thus seen as a holistic approach and put into practice along the whole value chain. The reporting follows the standards of the Global Reporting Initiative (GRI).

### Leadership and Values at Siegfried

The Board of Directors and the management of the company are the highest responsible bodies for the implementation of and adherence to all sustainability-relevant policies and guidelines, especially the Code of Business Conduct. Responsible for the implementation

of the Compliance and Quality Standards as well as for the area of Safety, Health and the Environment (SHE) is the Chief Compliance Committee or, respectively, the Chief Compliance Officer. Sustainability is also embedded in our corporate values.

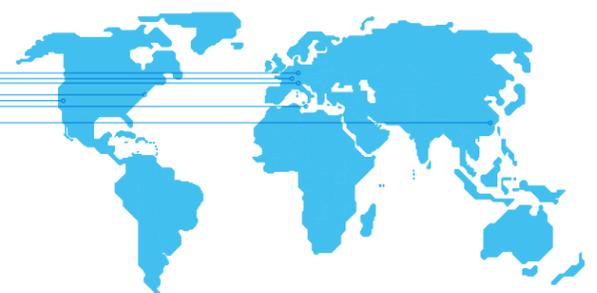
In 2016, Siegfried rolled out new guidelines for all sites concerning "Leadership and Values". The corporate values of compliance, respect, loyalty, credibility and sustainability represent the core of the leadership model. By creating a shared basis for action and bringing life to corporate culture beyond national borders, these five core values form the basis that connects Siegfried with all its stakeholders. They provide clarity and commitment to our dealings with each other and form a basis for understanding cultural differences and for our entrepreneurial success. These five core values help to translate our strategy and our brand into concrete behavior and actions and they should serve as an internal compass.

The management principles were worked out and defined jointly with the managers of all sites. To this end, workshops were held at all sites in 2016, through which the topic was presented interactively to the staff. Thereby, the focus was placed on the individual characteristics, which combined being able to build a diverse, high-performance, dynamic team and, in this way, to advance the success of the company. The management

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## Siegfried in Dialogue

<h1>Media</h1>	<p>Topics: News and results</p>	<p>Platforms: Media conferences, media releases, direct contact with CorpCom</p>
<h1>Capital Market</h1>	<p>Topics: News and results, business model/offering</p>	<p>Platforms: Financial analysts' conference, direct contact with CEO and CFO, roadshows</p>
<h1>Customers</h1>	<p>Topics: Business model/offering, technological innovation, sustainability</p>	<p>Platforms: Meetings, visits, symposiums, trade fairs</p>
<h1>Local Stakeholder</h1>	<p>Topics: Jobs, safety and environmental protection</p>	<p>Platforms: Direct contact with site managers, sponsorship</p>
<h1>Employees</h1>	<p>Topics: Working conditions and course of business, safety and environmental protection</p>	<p>Platforms: Information/townhall meetings, "Insight" employee magazine, intranet, internet, internal releases, information cascade via down line management</p>
<h1>Trade Unions</h1>	<p>Topics: Working conditions</p>	<p>Platforms: Information meetings with HR, direct contacts with line management</p>
<h1>Supervisory and Regulatory Authorities</h1>	<p>Topics: Compliance, safety and environmental protection</p>	<p>Platforms: Direct contacts, audits, training events, information letters</p>
<h1>Political Decision Makers</h1>	<p>Topics: Economic framework and specific concerns of the company</p>	<p>Platforms: Company visits, seats on boards of professional associations (chambers of commerce, etc.), involvement of site managers</p>
<h1>Suppliers</h1>	<p>Topics: Order security</p>	<p>Platforms: Visits, supplier audits, trade fairs</p>
<h1>Science</h1>	<p>Topics: Technological innovation and youth development</p>	<p>Platforms: Direct contact with universities and advanced technical colleges, symposiums</p>
<h1>Associations</h1>	<p>Topics: Economic framework and specific concerns of the company</p>	<p>Platforms: Seats on management bodies, exchange of experience groups</p>



model is intensified annually at each site with a training program in which practical content is imparted in targeted learning sequences and directly applied to daily working life. The program is to be systematically extended in the future, so that all our sites achieve the same quality standard.

The structural embedding of sustainable behavior in the company is complemented by various memberships of professional associations and organizations connected with sustainability, especially membership of the science industries' trade association.

In the context of the external perception of our corporate social responsibility, in 2017 Siegfried decided that all sites would undergo a Corporate Social Responsibility (CSR) assessment. EcoVadis was chosen as our partner. The analysis encompasses 21 criteria from the four thematic areas of the environment, social issues, ethics and sustainable procurement. The method of the CSR assessment of EcoVadis also complies with the international GRI and ISO 26000 Standards. The three sites St. Vulbas, Minden and Zofingen achieved the rating "GOLD", the remaining sites were awarded the rating "SILVER".

**Compliance with Legal Regulations**

Siegfried's Board of Directors and the management of the company are firmly convinced that strict adherence to all applicable laws and the strict rejection of all forms of unfair and unethical business behavior should be essential and central elements of Siegfried's business conduct. Therefore, we aim to comply with the high standards concerning performance and corporate responsibility in all our business activities. Siegfried's employees and suppliers must be kept informed about legal regulations relating to them, and they undertake to always act in compliance with the applicable laws and ethical standards and responsibly.

**Reference Framework**

Siegfried's Code of Business Conduct, available in the four company languages German, English, French and Chinese, provides its employees and suppliers with a frame of reference and an awareness of the most important critical legal fields and applicable laws, such as bribery and corruption, cartel and competition law, insider trading, fraud and other offenses against property as well as data integrity, confidentiality and data protection, conflicts of interest, trade controls and bans, as well as discrimination and harassment. The Code can be accessed on our website ([www.siegfried.ch](http://www.siegfried.ch)).

The Code is the basis for the programs on adherence of legal provisions implemented at all Siegfried sites in the last two years, which is aimed, on the one hand, at the sensitization and harmonization of the understanding of lawful conduct of business dealings within Siegfried and, on the other, at the creation of measures for efficient and effective prevention of violations of the law and their damaging consequences. The Legal Compliance Office coordinates the implementation and communication of the program and penalizes violations. Queries on the program for complying with legal provisions and potential violations of the Code of Conduct can be reported by Siegfried employees to the Legal Compliance Office via an external reporting office in the four company languages.

**Corruption & Anti-competitive Behavior**

Siegfried prohibits all forms of corrupt business behavior, such as the active and passive bribery of public and private officials and decision-makers. All Siegfried employees and suppliers must adhere to all applicable laws concerning bribery and corruption, in particular to the OECD Anti-Bribery Convention, the US Foreign Corruption Practices Act 1977, the UK Bribery Act 2010, and the relevant provisions of national law, in particular the Swiss Criminal Code on bribery of public

officials and the Federal Act against Unfair Competition in conjunction with Private Bribery, in their respective valid and current versions.

Furthermore, Siegfried prohibits its employees and suppliers from having any involvement in conduct in breach of applicable supranational and/or national laws that protect free and fair competition. Siegfried's employees and suppliers must perform their activities for Siegfried within the boundaries of European competition law, of US antitrust law, of Chinese anti-monopoly law, as well as all other applicable competition regulations. The Siegfried Group is not subject to any legal proceedings due to anti-competitive conduct or violations of cartel and monopoly laws.

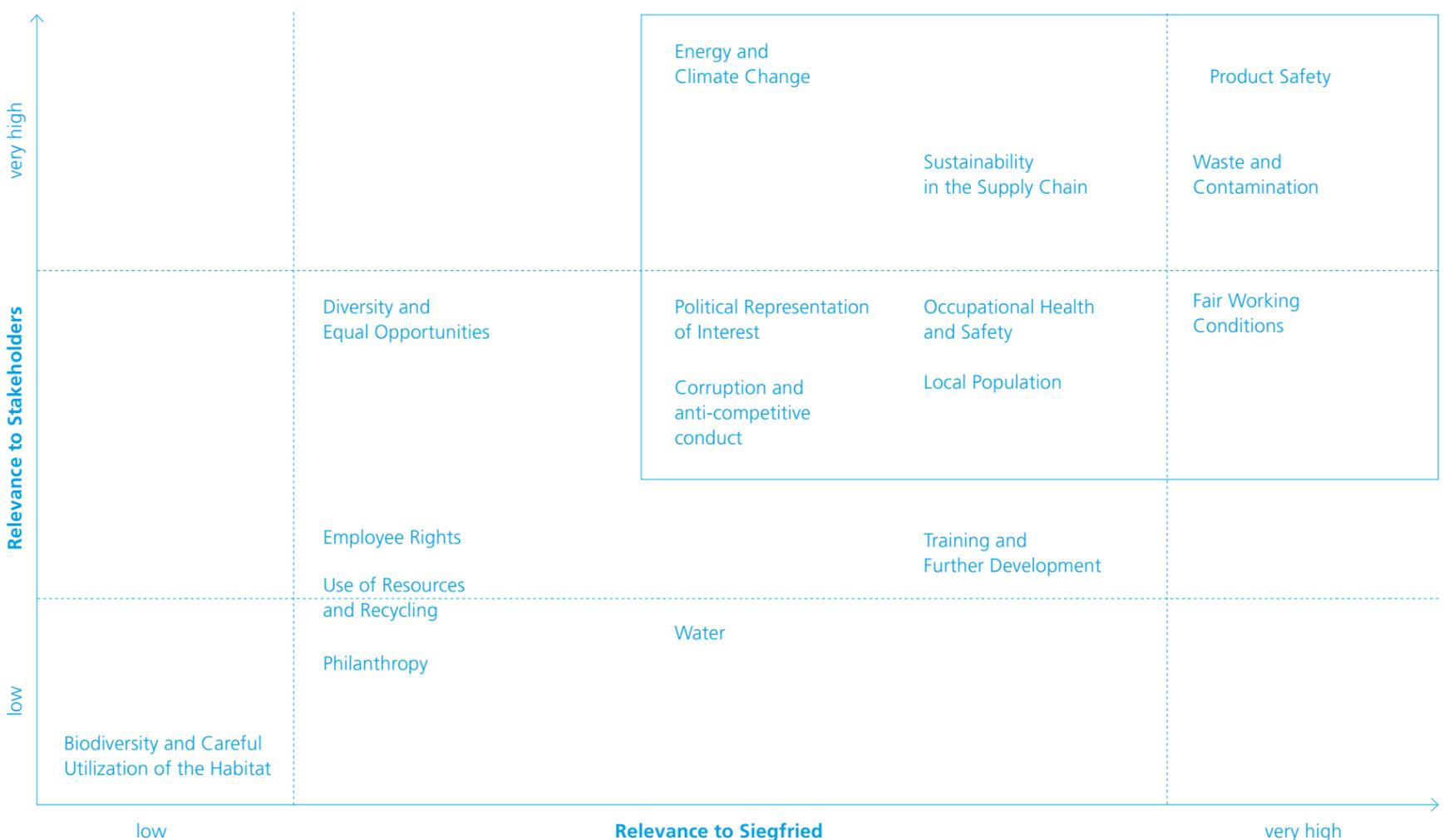
In 2017, the first training sessions on the topic of corruption and bribery were held in the Siegfried Group at individual Siegfried sites. In addition, training was carried out by an external consultant in competition law for Siegfried's sales team. To combat corruption, the first index-based risk analysis was carried out at all Siegfried sites and measures introduced in supply management.

**Outlook**

The program for complying with legal provisions, which was comprehensively revised in 2016, will be continuously expanded and improved in 2018 in accordance with the latest industry standards. In particular, intensified risk analyses in the legal areas relevant to Siegfried are planned for all sites as well as additional training. Further topics are: commissioning of and collaboration with third parties, especially the prevention of conflicts of interest and the further sensitizing of all Siegfried employees regarding the reporting office.

**Materiality Matrix**

GRI 102-47



## 2. Quality Compliance and Sustainability in the Supply Chain

### 2.1 Quality Compliance and Product Safety

Siegfried commits itself to corporate leadership that is aware of quality and the constant improvement of all processes and activities. Product safety must be guaranteed in all circumstances so as not to endanger patients. Important elements of this are, first and foremost, well-trained staff. It is important to ensure quality through validated and robust processes, storing and sending materials consistent with their requirements, preventing fakes, and certifying the quality of the purchased materials and services. Quality is, therefore, an important part of corporate policy and is reflected in daily work processes. Siegfried conducts its business activities responsibly and in conformity with the legal regulations of the countries in which we operate.

Siegfried created a comprehensive compliance management system for quality along the entire value chain. It is based on the process orientation of ISO 9001 for quality management and it encompasses the following applicable international guidelines:

- Good manufacturing practice/cGMP (current Good Manufacturing Practice) [https://ec.europa.eu/health/human-use/quality\\_en](https://ec.europa.eu/health/human-use/quality_en)
- The guidelines of the International Conference for Harmonization ICH, with which the regulatory authorities and the pharmaceutical industry bodies of America, Europe and Japan define standards in the pharmaceutical industry ([www.ich.org](http://www.ich.org))
- Guidelines of the World Health Organization (WHO) ([www.who.int](http://www.who.int))

Siegfried established an internal Compliance Committee (ComCom) responsible for worldwide compliance, standardization and harmonization along our value chain for active ingredients and finished products. Under the leadership of the Chief Compliance Officer, the ComCom meets once a month to address topics with relevance to quality. It establishes targets, management systems, initiatives and measures of relevance to quality and adopts applicable guidelines for Siegfried. In its work, it follows international GMP standards while taking account of national standards in as far as they are of relevance for exporting our products, such as special standards issued by the US Food and Drug Administration, the European Union, etc.

Using an integrated quality management system, we manifest and support the ongoing consideration to the

quality concerns of our internal and external customers. Our record of compliance covers many years and reflects our core competencies as well as the strong values from which our customers benefit from a partnership with Siegfried.

We control the relevance and applicability of our guidelines at regular intervals. At the end of 2017, 36 such provisions were in force. They relate mainly to aspects of quality, but also refer to the areas of finance, safety, health and the environment as well as communications and the conduct of the employees (Code of Business Conduct).

#### Integration of the New Sites

The integration of the three new sites in Evionnaz, St. Vulbas and Minden into our compliance system was pursued intensively in 2017. The Siegfried-wide compliance system has been virtually completely implemented and numerous inspections by national and international authorities were passed successfully.

Nantong now has a tested GMP structure and a safety concept based on that in Zofingen is now in place, and production has thus started. Several customer audits were carried out in 2017. They have shown that we are on the right track, but there is room for improvement in certain areas. The current challenges lie in the fact that the site is to change from run-up phase to routine, consequently, commercial production and the current safety and environmental requirements are to be adjusted. Furthermore, Siegfried in Nantong passed its first inspection by the Chinese authorities (CFDA) and received the so-called Written Confirmation Letter for a product that is to be sold to Europe.

#### Inspections and Audits

The focus of inspections by the authorities and audits by customers is on the quality of the goods produced and supplied by Siegfried to, ultimately, protect patients from risk. Therefore, the inspections and audits check compliance with the regulations for production, quality inspections and logistics procedures.

Open and continuous communication with the authorities, customers and suppliers is essential for well-functioning cooperation. Results of customer audits and of inspections by the authorities make Siegfried's performance and capabilities transparent. As is typical in the pharmaceutical industry, all of Siegfried's sites are constantly monitored. A difference is made concerning inspections (by the authorities), audits (by customers or by Siegfried at suppliers' facilities) and internal audits. Customer audits and audits at suppliers' facilities and manufacturers are announced in advance. Inspections by the authorities and internal audits can be carried out without prior notice. For more information on the topic of audits with suppliers, please see the chapter "Sustainability in the Supply Chain", page 77.

As a rule, inspections by the authorities are carried out:

- in the USA by the Food and Drug Administration (US-FDA), and for narcotics by the Drug Enforcement Administration (DEA)
- in Switzerland by Swissmedic, which delegates the inspections to the "Regionales Heilmittelinspektorat Nordwestschweiz" (RHI), and by the US-FDA
- in Malta by the Medicines Authority Malta (MAM) and the US-FDA
- in Germany by the regional councils or the Trade Supervisory Board and the US-FDA
- in France by the national French authority (ANSM) and the US-FDA
- in China by the national authorities CFDA (City, Province FDA), EDQM (Europe) and the US-FDA.

In 2017, GMP inspections by the authorities were carried out at several sites with positive results and the responsible authorities issued or renewed the licenses (see <http://www.siegfried.ch>).

In respect of several hundred successful inspections and audits in recent years – over 40 in 2017 in Zofingen alone – Siegfried had a good opportunity to measure itself against the systems of other companies and against the requirements of the authorities and to draw conclusions as to its own interpretation of guidelines. This created a sense of security for our quality management system. Moreover, this system serves to convince customers of our performance.

#### Customer Dialog

Siegfried operates a formal customer complaint system. We follow up all external question or complaints, be they justified or not. The type and number of complaints are recorded systematically. The individual cases are evaluated in quality assurance meetings run by the local quality manager. If necessary, changes will be initiated. Cases of a critical or strategic nature are activated by ComCom. In as short a time as possible, at the latest after 30 days, customers receive the results or, at least, an interim report on the investigations.

The number of significant observations in audits by our customers in Zofingen has declined continuously in recent years. In Zofingen, Siegfried receives on average one customer per week for an audit.

#### Quality Agreements with Customers

Customer requirements are extremely varied. On the one hand, they are becoming increasingly demanding and, on the other, deadlines are becoming shorter or production must be carried out in line with specific customer standards. The prescribed quality agreements between Siegfried and its customers represent a big challenge for the company. With an active customer base of over 100, several parallel customer-specific quality management systems cannot be handled in daily operations. The level of Siegfried's own quality management system is so high because it must satisfy a range of customer requirements. In 2017, over 200 quality agreements for the Siegfried sites were concluded with our partners. Over 100 quality agreements are in the pipeline and must be verified or negotiated in 2018. The new Siegfried sites have already been completely integrated into the system so that a growing number of contracts are materializing between our customers and several sites.

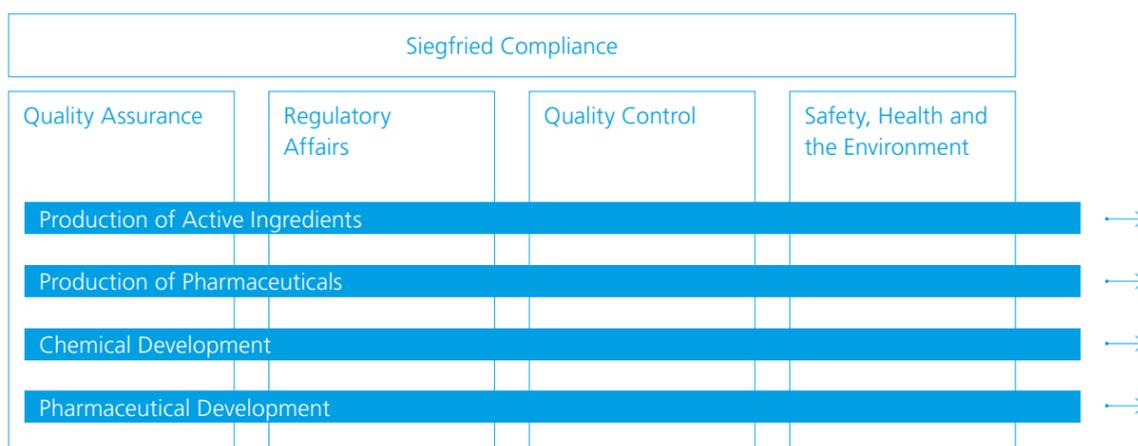
At Siegfried, all raw materials, intermediate stages and finished products undergo numerous inspections and assessments in the interest of product safety.

#### Outlook

The high cGMP standard (current Good Manufacturing Practice) and Siegfried's quality image enjoy international recognition. Siegfried knows it is better to maintain high standards than to restore a damaged reputation. As the industry guidelines and the customers make ever increasing demands on us, we must keep an eye on the situation at all times and take appropriate action.

In 2018, Siegfried will continue to work on the standardization and harmonization of the quality management system at all Siegfried sites. Currently, harmonization of the GMP processes has not yet been

## Siegfried's Compliance Model



The compliance model of Siegfried is based on the four pillars of quality assurance, regulatory affairs, quality control and safety, health and the environment (SHE). All four pillars are consistently taken account of in the overall value chain during product development and manufacture.

completed at the new sites in Minden, Evionnaz and St. Vulbas. In 2018 and 2019, an important role will be played by the IT program in laboratory management and in deviation and change management. This program has already been released for implementation and will be installed and implemented with the participation of all subsidiaries in 2018/19.

## 2.2 Sustainability in the Supply Chain

Maintaining sustainability standards in the supply chain represents an elementary value adding factor and, at the same time, an important lever in the implementation of our "Code of Business Conduct" and for risk minimization. This requires a joint effort and long-term, value-orientated action to ensure product quality and social and environmental sustainability. We are convinced that sustainability in the supply chain can be obtained only by means of clear rules regarding the selection and qualification of our suppliers and in close cooperation with established suppliers.

We regard cooperation with our suppliers as an opportunity to integrate sustainability into the entire value-added process. Our suppliers play a decisive part in our sustainability performance, and that is why cooperation with them must be based on principles that we share. A shared understanding of quality, reliability of supply, ethical and social standards, competitive prices and consistent implementation of the demands we make on sustainability in all production and business processes regarding the global, complex supply chains and the large number of suppliers and sub-suppliers represents an enormous challenge but is indispensable. Our partners should fulfill the same ecological and social standards as we do in terms of respect for internationally recognized human rights and employment rights, the strict prohibition of discrimination and harassment, adherence to environmental standards, strict prevention of any kind of bribery or sustainable use of raw materials.

Siegfried's management system stipulates that we produce in accordance with cGMP standards, act responsibly in compliance with economic and environmental standards, and evaluate new technologies in terms of their contribution to sustainability. Both national and international standards and guidelines represent the benchmark for the further development of our systems, be it concerning environmental awareness, occupational safety or other socially-relevant issues.

In the areas of logistics and distribution, responsible conduct also enjoys a high priority. The safe transportation of materials and products is essential; product safety is guaranteed throughout the supply chain and thus meets national and international standards and, especially, the Good Distribution Practice (GDP) widely used in the pharmaceutical industry.

### Quality Requirements and Quality Certificates

Triggered by a rising quality awareness and the consequently higher demands made on quality by the customers, but also by accidents, counterfeits and adulteration, the number of inspections and certificates/statements generally required from the pharmaceutical industry is growing steadily. Today, in addition to normal analysis certificates, which have long been required, regarding appearance, content, purity, physical characteristics and the production of our products conforming to GMP, customers and regulatory authorities require data and certificates about genotoxic impurities, freedom from heparin adulteration, freedom from hidden genetically modified components, including freedom from TSE/BSE, melamine, benzene, etc. Siegfried works in close cooperation with the US-FDA regarding product piracy to combat counterfeiting and to ensure end-user safety.

### Collaboration with Suppliers

Audits, in which Siegfried checks their quality management system as well as the social and ecological effects along the supply chain and identifies any possible risks,

are carried out at regular intervals at the suppliers' locations. In doing so, defects are addressed, and measures derived. Non-compliance with minimum standards will result in the imposition of a delivery block or the initiation of a change of supplier. Most of the audits are carried out by internal auditors complemented by a small number of external audits supervised by independent auditors.

To date, no systematic inspection procedures regarding social and environmental criteria have been established.

### Qualification of Suppliers and Service Providers

Often, raw materials, pharmaceutical excipients, packaging material, active agent components and occasionally also active agents purchased from manufacturers and suppliers abroad and used by Siegfried to be able to synthesize pharmaceutical active agents or to formulate, manufacture and package medicines. In such cases, Siegfried is responsible for qualifying these manufacturers/suppliers and we therefore have an (audit) system for carrying out qualification in accordance with applicable quality standards. This qualification is carried out through questioning the manufacturers/suppliers, continuous monitoring of the quality of the material received and audits of suppliers' production plants. The manufacturers are mainly based in India, China and Taiwan. In 2017, more than 40 audits of suppliers and service providers were carried out.

### Good Distribution Practices (GDP) in Distribution

GDP is a topic of increased significance since the introduction of new international guidelines in 2013. This should guarantee that the entire supply chain of materials from manufacturers/suppliers to Siegfried and from Siegfried to our customers is safeguarded from incorrect transportation and storage conditions

as well as fraudulent attempts at counterfeiting. In doing so, there are increasing new requirements of measurement and documentation of transportation and storage conditions to be fulfilled. Furthermore, Siegfried must ensure that products are delivered only to the authorized recipients. To meet these requirements, we both adjusted our processes in SAP and ensured closer monitoring of the transportation companies we employ.

In distribution, our aim is to offer our customers high-quality products and services and thus build up long-term relationships with them. Distribution at Siegfried is strictly regulated and subject to the relevant laws. The group-wide Code of Conduct, which does not permit violations of the law and which requires strict adherence to anti-corruption guidelines and cartel law (for more on the topic of corruption at Siegfried, see "Program concerning compliance with legal regulations", page 43), applies. So that our products and services may be distributed successfully, targeted communication and addressing the manifold needs of our customers are of particular importance. Owing to the great diversity of this group, individual measures must be taken to enter into dialog with customers and to gauge their satisfaction. Siegfried therefore operates an effective customer complaints management system (for more on the topic of customer complaints management see the chapter on "Quality Compliance", page 44).

### Outlook

All Siegfried's suppliers must also undergo our qualification processes. In the forthcoming years, in addition to the obligatory review of the quality systems and processes of the suppliers, service providers and logistics providers, they will increasingly be assessed for their sustainability, environmental sustainability and social responsibility. In the future, our inspection criteria will be strengthened through self-assessments or onsite audits.

## 3. Safety, Health and Environmental Protection (SHE)

Safety, health and environmental protection are top priorities at Siegfried and are firmly anchored in its corporate mission statement. According to this principle, our employees and teams of specialists are committed every day to the continuous improvement of safety and to minimizing negative impacts on the environment. The costs and risks regarding work and production interruptions decrease as the result of accident prevention.

As a chemical-pharmaceutical company and a leading provider of controlled substances, Siegfried attaches great importance to plant safety, and the company works closely with professional service partners. Specialists control and monitor the situation on the company's premises around the clock and monitor the firms' own central alarm system. Every year, the expenditure on and investment in safety, health, environmental protection and plant security amount to tens of mil-

lions (double-digit) Swiss francs. Over 2% of Siegfried's global workforce is engaged full-time in the areas of safety, health and environmental protection.

Site	Number of employees working in SHE
Zofingen	12
Pennsville	6.5
Malta	1
Irvine	1
Nantong	6
Hameln	1
Minden	16
Evionnaz	15
St. Vulbas	8
Total	66.5

### Policy Guidelines and Key Figures

Siegfried Zofingen und Evionnaz are members of the industry association Chemie Pharma Biotech "science-industries Switzerland", and have co-signed the Responsible Care® program. The Responsible Care Program has also been implemented in the French production plant St. Vulbas.

This worldwide initiative signifies the determination of the chemical-pharmaceutical industry to strive for continuous improvement in the areas of safety, health and environmental protection and to publicly present its progress on a regular basis. This initiative anchors this as a precautionary principle in the form of the voluntarily imposed regulations.

The Responsible Care® program has defined six principles:

- The protection of people and the environment are a top priority.
- Plants are operated in such a way as to ensure safety, health and environmental protection. Products are safely manufactured, transported, used and disposed of with a lower impact on the environment.
- The possible impact of processes, products and waste on people and the environment is known. Collaboration with the authorities and third parties to implement measures for the protection of employees, society and the environment.
- Supporting business partners in the safe transportation, safe handling and the safe and environmentally compatible use and disposal of products.
- Dialogue with society is maintained, which includes communication about products, processes, equipment and their impact on people and the environment as well as precautionary protective measures.
- Products, processes and equipment are operated in such a way so that they are ecologically, socially and economically sustainable.

In 2006, Siegfried signed the ChemStewards® program of SOCMA (Society of Chemical Manufacturers and Affiliates), which is applied at the sites in the USA. The program focuses on the primary goals of stakeholder communication, product responsibility, the implementation of "Safety, Health and the Environment and Security" (SHE & S) from planning to operations, training and the commitment of employees as well as resource management and waste minimization.

The principles and contents of these various programs and systems are summarized in a global SHE policy, which was bindingly introduced in 2006 for all sites. This policy describes Siegfried's philosophy of safety, health and environmental protection towards employees, suppliers, business partners, customers, shareholders, the authorities and the public.

The management of Siegfried determines the SHE business policy and ensures that it is understood and practiced at all levels. The goals and programs concerning safety are developed within the medium-term planning process and reviewed on a regular basis.

The implementation of our safety and environmental policies and compliance with regulations are primarily in the hands of our employees. They are responsible for their own safety-conscious and environmentally compatible conduct. The leadership at every level of the organization is responsible for promoting safety and environmental awareness through relevant framework conditions and implementation measures.

In addition to global SHE campaigns, the various Siegfried sites also have the option to roll out site-specific initiatives. In 2016, in Pennsville, the Continuous Improvement (CI) program was launched to heighten safety awareness, which should be achieved through taking a variety of different approaches and cross-sectoral teams. This program has shown results: the accident figures have been significantly reduced against those of the previous years. In all plants, apart from Evionnaz and St. Vulbas, where the introduction is expected for 2018, the 2017 DuPont™ STOP program from training safety precautions was launched.

Siegfried uses Key Performance Indicators (KPI) to control management processes and performance evaluations; they are also used for SHE protection and to define any corrective actions that may be necessary.

Based on established accident and environmental parameters, we report on our activities and provide an extensive overview of accidents to interested parties. Additional information is available on our website ([www.siegfried.ch](http://www.siegfried.ch)).

Based on the area development at the Zofingen site, in 2014, the environmental risks were comprehensively assessed through an Environmental Impact Assessment (EIA) and, in 2016, revised due to the construction of the Logistics Centre. The report confirms that the requirements of the environmental protection legislation were adhered to in all respects. The evidence of this report continues to be valid for 2017.

## 3.1 Energy and Climate Change

The production of active pharmaceutical ingredients and intermediate products is energy intensive because, as a rule, it includes several chemical and physical stages. In addition to the many manufacturing stages, the temperatures, which range from very low to very high, required for many chemical reactions and physical processes are responsible for considerable energy demand. The limited consumption of thermal energy compared to that of the previous year is based on increased cheaper energy processes.

Much of the raw materials used by us originate wholly or partially in the petrochemical industry. As we depend on these raw materials in the production of medical substances, careful handling of these resources is of great importance to us. However, it is not only about the availability of raw materials, Siegfried is also interested in reducing global climate warming and that the negative effects linked to it are restricted. We can make an active contribution through careful handling of natural resources and reducing the volume of waste materials. The current figures have improved slightly against those of the previous year. The company sees further potential for improvement in the optimization of processes as well as in decommissioning old plants and old buildings with poor energy performance.

Siegfried has already implemented various measures. For example, natural gas, which is relatively environmentally friendly, is used as the main source of energy. Heating oil is used only to a limited extent, above all where natural gas is not available. Siegfried stopped using heavy fuel several years ago. Regenerated solvents, which can no longer be used in production, serve as an alternative energy source. It was possible to increase the use of these so-called alternative fuels by 6.6% above the previous year's consumption; however,

they only account for 3.5% of the total energy requirement. The energy consumption of electrical and thermal energy should be reduced based on optimization and partially through system upgrades, e.g. mode of operation of ventilation.

The goal set for 2017, not to allow the volume of standard energy consumption to increase further, was achieved. It was also possible to adhere to our goal of reducing VOC emissions in the environment.

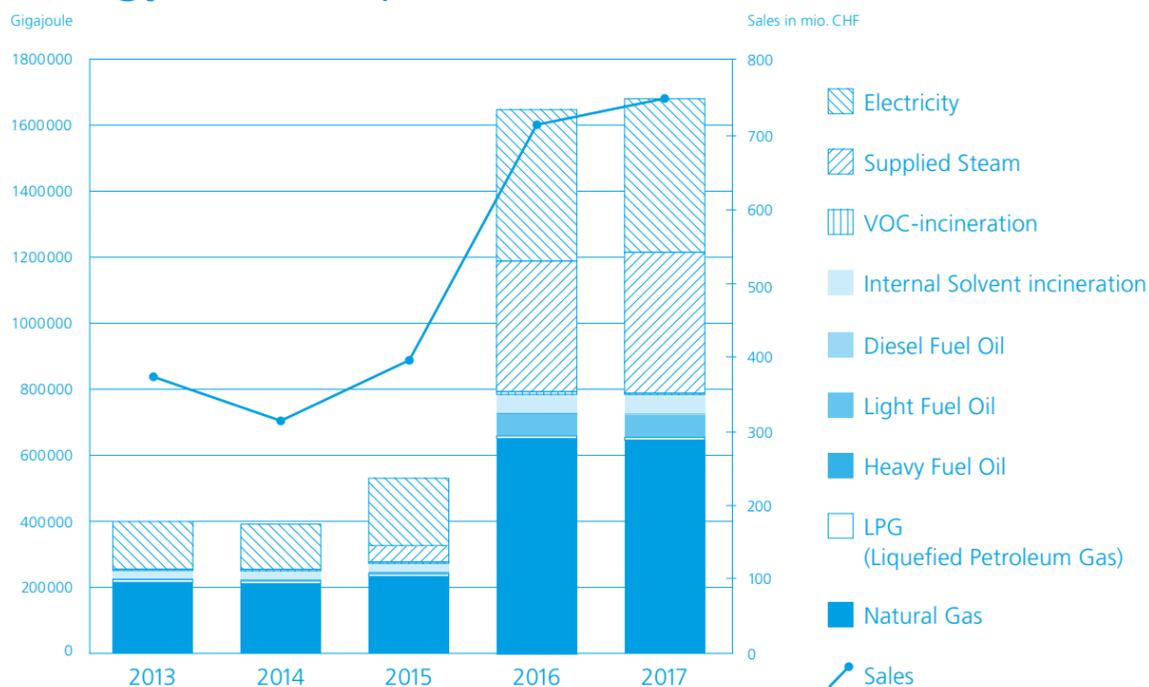
Siegfried's total energy consumption of 1689 terajoules (TJ) was 2.0% higher than that for the 2016 reporting year. Even though less energy was used at the sites in Evionnaz (-5.5%) and Pennsville (-3.6%) compared to the previous year, overall consumption increased. The greatest increase in energy consumption was recorded at the sites in Irvine (+52%) and Zofingen (+6%), whereby the absolute energy consumption in Irvine is relatively limited when compared with other sites; Irvine accounted for only 0.5% of Siegfried's total energy consumption.

The volume of standard total energy consumption dropped by 2.5% compared to the previous year.

In respect of natural gas, consumption was slightly less than that of the previous year (-0.4%), and heating oil consumption was also lower (-4.9%), whereas the volume of steam grew (7.3%), and the consumption of electricity increased (+1.8%). In 2017, Siegfried used no fuels which were generated from renewable energy sources. Wherever possible, Siegfried replaced mineral oil by natural gas, which has a lower impact on climate and resources. In smaller projects, fossil fuels were partially substituted. Together with the federal authorities, Siegfried defined a CO<sub>2</sub> reduction target for 2020, which should be achieved by means of site modernization. The details on energy consumption include all consumption directly incurred by the firm, which includes the diesel consumption of company-owned vehicles. Energy used on business travel is not recorded. The energy content of the fuels follows the fact sheet CO<sub>2</sub> Emissions Factors of the Greenhouse Gas Inventory of Switzerland, published by BAFU (Swiss Federal Office for the Environment FOEN) on 26.06.2016.

The total consumption of electric power at all Siegfried sites amounted to 469.1 terajoule (TJ). The increase in consumption of 1.8% is based on an increase in the Irvine, Zofingen and Hameln plants. In the other plants, the consumption of electricity was at the previous year's level or below. Higher consumption of electricity in Irvine is due to longer operational times and the transfer of production to another building. Consumption in Zofingen increased due to additional electricity required by the newly created production buildings and the continued operation of the buildings which were to be replaced by the new buildings.

## Energy Consumption



## Key Environmental Protection Figures

	Unit	2017	2016	2015	2014	2013
<b>Energy consumption</b>						
Total energy	GJ	1 689 200	1 656 200	531 900	400 000	403 300
Natural gas	GJ	649 900	652 300	234 000	210 400	216 400
Heating oil	GJ	65 300	68 737	7 200	4 400	5 500
Alternative fuels (solvents)	GJ	58 300	56 700	23 900	27 300	21 800
Electricity	GJ	469 100	460 800	205 200	145 600	147 000
<b>Emissions</b>						
CO <sub>2</sub> emissions (Scope 1) <sup>1</sup>	Tons	47 900	48 200	16 300	15 000	15 100
VOC emissions	Tons	59	65	17	16	12
CO emissions	Tons	8.5	8.7	n.e.	n.e.	n.e.
NO <sub>x</sub> emissions	Tons	40	37	n.e.	n.e.	n.e.
SO <sub>2</sub> emissions	Tons	3.3	6.0	n.e.	n.e.	n.e.
GWP, 100-year time horizon	Tons	47 600	n.e.	n.e.	n.e.	n.e.
<b>Water/waste water</b>						
Water consumption	m <sup>3</sup>	6 493 000	6 871 000	2 456 000	2 071 000	2 103 000
TOC emissions <sup>2</sup>	Tons	109	144	536	454	509
Nitrogen emissions	Tons	73	67	n.e.	n.e.	n.e.
Phosphor emissions	Tons	2.7	1.9	n.e.	n.e.	n.e.
<b>Waste<sup>3</sup></b>						
Total waste <sup>4</sup>	Tons	47 985	50 400	16 200	13 500	15 900
Hazardous waste	Tons	39 918	47 600	13 800	11 700	14 600
Incineration	Tons	34 055	n.e.	n.e.	n.e.	n.e.
Recycling	Tons	842	n.e.	n.e.	n.e.	n.e.
Reclamation, including energy	Tons	4 927	n.e.	n.e.	n.e.	n.e.
Landfill	Tons	94	n.e.	n.e.	n.e.	n.e.
Non-hazardous waste	Tons	8 067	2 800	2 400	1 800	1 300
Incineration	Tons	402	n.e.	n.e.	n.e.	n.e.
Recycling	Tons	1 670	n.e.	n.e.	n.e.	n.e.
Reclamation, including energy	Tons	1 451	n.e.	n.e.	n.e.	n.e.
Reutilization	Tons	28	n.e.	n.e.	n.e.	n.e.
Disposal to external wastewater treatment plants	Tons	4 007	n.e.	n.e.	n.e.	n.e.
<b>Recycling</b>						
Regenerated solvents (internal and external)	Tons	23 500	15 100	6 400	2 150	2 720

n.e. = not recorded

<sup>1</sup> Excluding CO<sub>2</sub> emissions from wastewater treatment plants

<sup>2</sup> Since 2016 TOC emissions after the – wastewater treatment plants – have been recorded

<sup>3</sup> Classification based on the chemical composition of the waste, reporting the disposal methods by the individual plants

<sup>4</sup> Excluding sewage sludge

27.7% of the electric power consumed was generated from renewable energy sources.

At the Malta plant, the quantity of electricity produced by means of photovoltaics grew slightly by 1310 GJ (+21.5%) compared to the previous year.

CO<sub>2</sub> emissions in Scope 1 (direct emissions from operation) were mainly due to the use of fossil fuels; other sources make up less than 2%. Due to the reduced consumption of fossil fuels, the CO<sub>2</sub> emissions decreased slightly by 358 tons, or 0.7%, compared to the previous year. The volume of standard CO<sub>2</sub> emissions was reduced by 5.1%. The GWP (Global Warming Potential), expressed as CO<sub>2</sub> equivalent, amounted to 47 604 tons. For the conversion of other GHG emissions (greenhouse gases) into CO<sub>2</sub> equivalents, the GWP values for a 100-year time horizon in accordance with the IPCC Assessment Report 5 (AR 5), Chapter 8 (“Anthropogenic and Natural Radiative Forcing”), are used. The direct emissions in the company, i.e. Scope 1, were taken into account. The CO<sub>2</sub> emissions from biogenic sources were not included. It is anticipated that they will be included in the 2018 reporting year.

The VOC volume emitted amounted to 59 tons; the volume compared to that of the previous year was less by 6 tons. The VOC emissions in the Minden and Pennsville plants increased but were more than compensated for by significantly less emissions in St. Vulbas. The 40-ton emission of carbon nitrous gases (NO<sub>x</sub>) was 3 tons above that of the previous year. The increase was recorded in the Evionnaz plant. NO<sub>x</sub> emissions at the other plants remained constant.

Sulphur oxide emissions were recorded at a low level. In 2017, the emissions amounted to 3.3 tons, or virtually half of the previous year's emissions.

Carbon monoxide emissions of 8.5 tons at all Siegfried plants decreased by 0.2 tons compared to the previous year. In coordination with the authorities, Siegfried drew up a plan to measure VOC from 2018 to 2020. VOC emissions should consequently drop even further.

The reported greenhouse gases emitted refer to emissions in Scope 1 (direct GHG emissions).

### Outlook

The volume of standard energy consumption is to be reduced. The same applies to the consumption of electricity. We aim to further reduce the volume of standard CO<sub>2</sub> emissions. At the site in Nantong, China, exhaust incineration will be adjusted to save on organic solvents and other fuels to be incinerated. It is planned, that exhaust gases from the tank plant in Nantong will be captured and the VOC emission reduced. At the Minden site, the pumps are currently being retrofitted which should be completed in 2018 to meet the requirements of the Technical Instructions on Air Quality Control (TA Luft).

## 3.2 Waste and Contamination

By its very nature, the production of active pharmaceutical ingredients results in the accumulation of large quantities of waste as the manufacturing processes are complex and lengthy. The waste contains by-products of a synthesis which can be harmful to human health and the environment. Siegfried is committed to minimizing waste. Handling waste with care is therefore of great importance to prevent negative influences on eco-systems. Siegfried meets all requirements of the authorities and is in possession of the necessary licenses.

Siegfried meets the defioned environmental standards and cultivates regular dialogue and an exchange of ideas with the responsible environmental authorities. Concerning the Zofingen site, a cooperation agreement was signed in the summer of 2016 with the Canton of Aargau environmental authority. The agreement focused on the topic of waste water and an exchange of data was agreed on. Siegfried undertook to actively report all irregularities with a potentially negative influence on the environment.

Discharge reduction of active pharmaceutical ingredients and intermediate products into waste water at the Zofingen site was continued. Tests were carried out for several manufacturing processes and, where necessary, waste water treatment was implemented. The production sites in Pennsville and Evionnaz have their own wastewater treatment plants which remove trace contaminants by means of activated carbon treatment.

In 2017, water consumption was reduced by 5.5% across all sites. When comparing water consumption with sales, consumption decreased by 9.7%. Most of the production sites were able to reduce water consumption. Owing to the great commitment of our project group, water consumption at the Zofingen site decreased by 8.5% compared to the previous year. We therefore reached an interim goal, and additional savings in water consumption are necessary and planned. However, higher water consumption at the other production offset the savings recorded in Zofingen.

Across all Siegfried sites, total organic carbon (TOC) emitted into waste water amounted to 109 tons. This is 44 tons, or virtually 25%, lower than in the previous year. Therefore, at all sites, the TOC emission after wastewater treatment has been recognized. The same is true for the key wastewater indicators of nitrogen and phosphorous emissions, where the values were measured following wastewater treatment. Nitrogen emission into the water grew by 9.5%. The Minden site is the main emitter of nitrogen as it produces a large quantity of products containing nitrogen. A project is underway for the company's own wastewater treatment plant at the Minden site, which will improve the emission of nitrogen. Phosphorous released into the environment is 42% above that of the previous year, but with 2.7 tons at a low level.

The volume of total waste of all nine Siegfried sites amounted to 47 985 tons, which is 4.7% less than in 2016. Compared to sales, waste decreased by 8.9%. The waste is divided into 39 918 tons of hazardous waste and 8067 tons of non-hazardous material. The considerable proportion of hazardous waste is due to the fact that chemical production incurs a large volume of waste solvents classified as hazardous. However, it is in this very waste category that the greatest savings were achieved in 2017. The waste solvents disposed of decreased by 16% owing to the higher regeneration of solvents at several sites. There are two possibilities for regeneration: plant-internal regeneration or plant-external regeneration. A total of 23 500 tons of solvents were regenerated in 2017, representing an increase of 55% compared to the previous year. The proportion of regenerated solvents improved from 0.33 to 0.61.

### Outlook

Additional savings in the area of waste are planned for 2018. Siegfried will focus on optimization in waste solvents, the main waste category. An interdisciplinary project group was set up consisting of employees from the Business Excellence, Product Chemistry, Waste and

Safety and Environmental Protection Departments. The proportion of regenerated solvents relating to the volume of waste solvent grew significantly in 2017. At several sites, there is potential for higher solvent regeneration which has not yet been exhausted.

Water consumption in 2017 was stabilized. Additional savings and optimizations are foreseen for 2018. The interdisciplinary project group set up will pursue this goal in 2018. In addition to the efforts to reduce water consumption, discharge of pollutants into the water is continuously being improved, as exemplified by the emission of active pharmaceutical ingredients. These processes are constantly being optimized. At the Evionnaz site, activated carbon treatment was installed in the site's own wastewater treatment plant to reduce the emission of micro-impurities. In Zofingen, an ongoing study concerning the municipal wastewater treatment plant into which Siegfried feeds its waste water looks into improvement of waste water purification regarding micro-impurities. In Minden, the on-site wastewater treatment plant is being optimized regarding the elimination of nitrogen from waste water.

In 2018, the Zofingen plant will participate in a feasibility study concerning the fermentation of industrial waste water, which is co-financed by the Swiss Federal Office for Energy.

At the Nantong site, a sludge drying system has been installed in the wastewater treatment plant with the aim of reducing the disposal of sewage sludge.

The "pump & treat" installations for decontamination at the Evionnaz site should have been operational in 2017. As the borehole used in the pilot operation was damaged, the installation was delayed by five months. It is expected to be put into operation in 2018.

### 3.3 Safety and Health

An efficient and safe chemical process is central to process development. As a rule, all chemical processes undergo extensive environmental and safety tests during their development. Our internal safety laboratories employ well-trained specialists and state-of-the-art measuring instruments for the physical and thermal testing of materials. In experiments, the flammability, the risk of explosion, as well as the response in normal operation and in the event of emergency are simulated and evaluated. The findings are summarized in a safety and environmental report and assessed in a subsequent process risk analysis.

As part of our failure prevention plan, failure scenarios in the production, storage and internal transportation of chemical substances are subjected to a comprehensive risk analysis. The results are summarized in a report and reviewed by the authorities during an annual inspection.

For emergency situations, such as explosions, fires or chemical incidents, Siegfried maintains its own emergency teams in the production facilities. Thus, the chemical and firefighting team in Zofingen and the Minden firefighting team each have more than one hundred members, consisting of professional firefighters and volunteers from all departments. Additionally, at the behest of the authorities, these groups also respond to incidents involving hazardous materials outside the area of the plants. The site in Evionnaz also has its own emergency unit.

How do I respond properly in the event of an emergency? These and similar questions about firefighting and first aid are discussed in regular training sessions and simulated in practical evacuation drills.

In addition, Siegfried employees are required to participate regularly in training with fire extinguishers. In these training sessions with small extinguishers, the employees learn to handle a fire in a wastebasket, a PC on fire, or even burning solvents by using different extinguishing methods. What they learn there is useful both in their professional environment as well as their personal life.

#### Focus on Workplace Safety

It is Siegfried's intention to create a corporate culture that tolerates no accidents. The Siegfried safety program was launched worldwide in 2006 based on this vision. The objective of the program is to raise the safety awareness of every employee. To further promote this, the Executive Committee decided in 2013 to introduce a global safety program, which was rolled out at every site together with experts from DuPont Sustainable Solutions. The key elements are the established STOP™ program and the five cardinal rules. All employees are required to develop a greater awareness of safety and to feel responsible for safety at work – their own and the safety of their coworkers. The goal of this safety initiative is an 80% reduction in the accident rate by 2017 compared to the 2012 reference year. Third-party companies located in Zofingen are also actively participating in this safety program. The target has not yet been achieved at all sites, but there has been a significant reduction in accidents since 2012.

In 2014 and 2015, 200 employees received training as part of the STOP™ program at the Hameln, Malta, Pennsville, Irvine and Zofingen sites. With the integration of the Evionnaz and St. Vulbas production sites into the Siegfried Group, the STOP™ Program 2017/18 was mandatorily introduced at these sites. Several hundred "STOP auditors" have completed their training, which sharpens their own safety awareness, and the STOP auditors have been enabled to engage in structured dialogues with their colleagues and co-workers on the topic of safety. These dialogues are the actual core of the initiative, because safety is a recurring topic. It is not

only about monitoring and identifying deficiencies. It also means recognizing and commending good conduct and good conditions. For historical reasons, at the Minden site, we have decided on a special solution, namely to put communication and behavior of the employees at the core and includes the most important STOP™ Program.

#### STOP Initiative

In 2017, several hundred such dialogues took place at the sites. The evaluations of the feedback from the STOP activities at the Zofingen plant showed the following picture for 2017: most of the employees worked with an awareness of safety.

Number of reported safety dialogs	740
Individual observations	20 000
Observations evaluated as "safe"	19 000
Observations evaluated as "unsafe"	1 000

In addition to the STOP initiative, a company-wide campaign for workplace safety was launched in 2014 with five cardinal rules describing the significant risks. These cardinal rules were applied globally in 2017. Compliance is mandatory for all employees; failure to comply will result in disciplinary action.

- Our five cardinal rules applicable worldwide are:
- Consistent use of personal protection equipment;
  - Completion of the required safety training prior to performing work;
  - Protection against falling while working at or above a height of two meters;
  - Safeguarding equipment prior to maintenance work;
  - Safety devices must not be removed or bypassed.

To permanently promote safety awareness while working, various activities and campaigns were initiated. In the context of clarifying accidents, brief information was drawn up which was sent internally to all employees and also used for training purposes. Furthermore, on a monthly basis, SHE publishes key topics on work safety, such as, correct grounding, use of personal protection equipment, tripping/falling, dangers of internal site traffic, and correct alerting.

Further training on safety concerning various topics is offered to the site's employees. For example:

- Internal training for logistics personnel and employees in dispatch on the transportation of hazardous goods and air freight safety training (known shipper)
- Introductory course for logisticians and internal waste disposers on Hazardous Goods Controls
- Safety training and refresher courses for production workers on the topic of "Handling a Forklift"
- Training for all production workers on the topic of "weighing correctly"
- Training in the handling and use of small-fire extinguishers for the site employees
- Safety training for construction site personnel.

#### Audits

The authorities, insurance companies and customers have inspected all facilities during the reporting year. Inspectors and customers confirmed that Siegfried has an effective and integrated risk and environmental management system in place. In an industry comparison, the risk assessment by the HDI Global insurance company revealed no irregularities. Siegfried sites meet the requirements for operational safety and fire protection and are listed among the top 10% in the insurance company's risk benchmark rating. The site in Nantong successfully underwent its first inspection by our insurer in 2017. The Zofingen site was inspected in 2017, whereby a good safety system and adequate fire prevention was attested.

The system of internal audits and safety inspection tours has been well established at the various sites. In Zofingen, 51 internal safety and environmental audits were performed. The audit teams submitted some 250 suggestions for improvement, more than 95% of which were successfully implemented in 2017. Concerning hazardous goods controls, 159 internal transportations by truck and rail were inspected. Defects

# 2%

of Siegfried's workforce globally are engaged fulltime in safety, health and environmental protection.

# 6

principles are defined in the Responsible Care program, which strives for continuous improvement in the areas the environment, safety and health.

and complaints were addressed in about 6% of the inspections.

### Incidents, Occupational Accidents and Occupational Illnesses

As part of Siegfried's integral risk assessment, in addition to the accident ratios, incidents with property damage or environmental impact have been shown under the parameter "accident points" since 2013. These accident points are determined as follows: 1 point for each day lost, 1 point per accident/occupational illness without days lost, 0.5 points per incident with significant property damage or environmental impact. This allows Siegfried to be more transparent in its reporting of events. The chart below is a cross-comparison between the plants in 2017. Six sites were below the target rate of less than 30 "accident points" per 1 million hours worked. Three sites were unable to meet the target. In Hameln, St. Vulbas and Zofingen, there were several occupational accidents which led to several weeks of working hours being lost. Due to the high accident figures various measures were taken, for example, at the Zofingen site, daily safety inspection tours and weekly meetings with the shift workers on the topic of safety. In addition, awareness of the STOP™ Program was raised, whilst 28 new STOP inspection tour operators were trained, bringing the total to about 100 inspection tour operators. New STOP inspection tour operators were sensitized and advised of their tasks and duties. Together with SUVA (Swiss Council for Accident Prevention) additional campaigns on the topic of "Tripping and Falling" were organized in order to draw attention to the underestimated causes of accidents and to prevent further accidents.

No occupational illnesses or work-related deaths were recorded in 2017. Detailed information on personal accidents will be collected from 2018.

Four production sites were able to reduce the number of occupational accidents (with and without lost days) compared to those of 2016. In Irvine, there were no accidents. The sites in Evionnaz (CH) and Minden (D), were able to reduce occupational accidents by about 20% to 11. This represents 16 occupational accidents per thousand employees. In Hameln (D), the occupational accidents were reduced by over 50% to 17 occupational accidents per thousand employees.

At the sites in Malta, Pennsville (USA), St. Vulbas (F) and Zofingen (CH), no contrary development was observed. The rate of occupational accidents worsened considerably and increased to over 3% in St. Vulbas and Zofingen. In Malta and Pennsville the occupational accident rate was 1.3% and 1.7% respectively.

In Zofingen, the occupational accident rate grew by about one third to a new rate of 33 per thousand employees. In 2016, about 17 occupational accidents were reported. Zofingen, therefore, ranks above the average of the Swiss chemical and pharmaceuticals industry. Most of the injuries were due to tripping and falling accidents. For half of the occupational accidents, no absences from the workplace were recorded. Care was given at the site's own first-aid stations, and the employees were able to return to their workplace.

At the Group level, Siegfried was unable to successfully lower the number of occupational accidents. The occupational accident rate has stagnated for several years at about 15 occupational accidents per thousand employees. Viewed across all sites, apart from Zofingen, most of the accidents, such as tripping, falling, lifting heavy loads and cutting, resulted in minor injuries and no or only short absences from the workplace of a few days.

### Ensuring Health

Siegfried maintains process technologies with various containment systems for the development and production of highly active substances and finished dosage forms. Closed handling of substances protects the employees from excessive exposure. Wherever necessary, protective clothing with respirators is available to safeguard the safety of the employees. To minimize the risks of contamination, Siegfried has installed decontamination stations, airlocks and designated changing areas. Compliance with the workplace thresholds and the effectiveness of the technical installations is monitored and periodically tested by SHE.

The 2017 accident statistics for each site are as follows:

Incident/1000 FTE	2017	2016	2015	2014	2013
Zofingen	33	24	16	18	17
Pennsville	17	11	34	37	13
Malta	14	7	14	30	7
Irvine	0	8	0	8	16
Nantong	3	0	5	1	0
Hameln	8	17	24	n.a.	n.a.
Minden	12	16	n.a.		
Evionnaz	9	11	n.a.		
St. Vulbas	35	13	n.a.		
Group	16	15	15	14	12

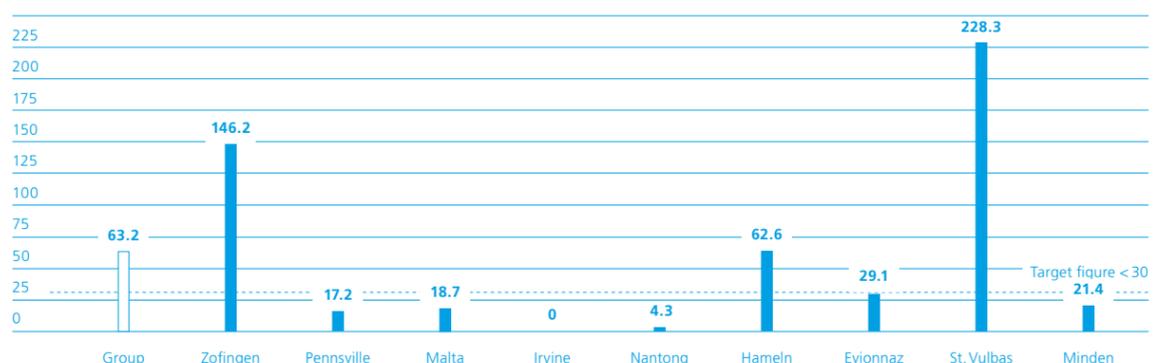
### Accident points / 1 million working hours

Zofingen	146	49	24	60	58
Pennsville	17	87	159	42	17
Malta	19	4	42	70	4
Irvine	0	82	0	22	96
Nantong	4	1	5	2	0
Hameln	63	20	65	n.a.	n.a.
Minden	21	20	n.a.		
Evionnaz	29	46	n.a.		
St. Vulbas	228	50	n.a.		
Group	63	36	40	33	38

The country and gender specific accident rate of occupational accidents and occupational illnesses for 2017 is structured as follows:

	Personal accidents without days lost		Personal accidents with days lost		Days lost	
	Men	Women	Men	Women	Men	Women
Switzerland	7	2	34	1	190.5	9.5
USA	2	0	1	0	4	0
Malta	0	0	2	0	4	0
China	1	0	1	0	1	0
Germany	3	0	6	2	32	30
France	1	0	3	0	39	0

Number of accident points per million working hours



An internal workplace hygienist is available to address questions and problems of hygiene at work. Workplaces have been assessed and production equipment classified by means of monitoring. The production equipment is combined in a system evaluation register. Based on this information, the equipment operator or product chemist can assess in advance whether additional steps must be taken regarding exposure when the product is changed. If necessary, the monitoring is repeated.

Training and testing in the use of the correct personal protective equipment at work is ongoing. The on-site trainers are supported by SHE. The internal department for workplace safety evaluates new personal protective items for a variety of applications, tests skin-care products and compiles the information in a company catalog for body protection.

In 2017, again, the annual flu shot was offered in the form of a vaccination campaign at no cost to the employees. As part of the medical care, about 150 employees in Zofingen were examined by the Institute for Occupational Medicine (ifa Baden) and assessed for their capacity to work. These medical check-ups were performed at the direction of SUVA (Swiss Council for Accident Prevention).

Ideas and suggested improvements submitted by employees are evaluated and implemented, if possible. Company sports clubs are available to promote fitness.

## Outlook

Siegfried continues to make the reduction of events and workplace accidents a priority by rolling out the STOP™ safety program worldwide. Local initiatives and campaigns support working with an awareness of safety.

To quickly reintegrate injured employees in the work process, alternative workplaces should be provided to optimize internal health management. Such a measure is foreseen for 2018.

All facilities are encouraged to continue sharing information on SHE topics. The purpose is to further harmonize health and safety standards and to implement the global SHE philosophy across all sites.

## 4. Employees

Siegfried's business success is based on the knowledge, skills, commitment and satisfaction of our employees. In global competition, it is their commitment that makes the decisive difference. Demographic change, shortage of well-trained staff, cooperation among generations and cultures and fast digitalization of work environments all demand a proactive redesign of future work situations and cooperation.

The goal of human resources management at Siegfried is to secure the company's long-term future, offer attractive jobs, increase the organization's competitiveness and flexibility and advance Siegfried's continued growth.

At Siegfried, Global Head HR holds responsibility for the development and implementation of these issues. The definition of priorities and thrusts and the approval of concrete measures are carried out in close cooperation with Siegfried's Executive Committee and the Board of Directors' remuneration committee.

Siegfried's global human resources strategy builds on the following core topics with regard to developing and exploiting Siegfried's potential as a company:

- Efficient organization
- Excellent leadership
- Attractive and responsible employer

### Efficient Organization

Recruiting, developing and keeping well-trained employees and maintaining their productivity represents a key factor in Siegfried's success. In an increasingly global and competitive market with growing demands made by customers and the regulating authorities, we aim to recruit employees with a high learning orientation and open-mindedness for new ideas.

Siegfried actively promotes the personal and professional development of employees and managers. We deliberately focus on the development of qualified young employees in management and skilled functions to offer development perspectives and to secure talent, experience and know-how for the company. Based on capabilities and strengths and depending on the company's needs, development measures are agreed upon and followed up during the annual performance and development reviews. In addition to individually defined external and internal training programs, Siegfried encourages employees to develop by taking on additional, demanding tasks and responsibilities or by gaining experience from reassignment to another company site.

Siegfried plans to redesign its leadership training within the coming 12 months and to align training contents to reflect the redefined leadership capabilities.

Professional training at Siegfried plays a significant role in order to meet the future need for skilled employees. With a focus on careers in the areas of laboratory assistant, chemical technician and pharmaceutical technician, Siegfried is currently offering 92 young people attractive training possibilities as well as interesting career opportunities to university graduates within the parameters of trainee programs and internships.

Site	Number of apprentices	in % of number of employees
Zofingen	37	6.80%
Evionnaz	13	4.36%
Hameln	19	4.31%
Minden	14	4.17%
St. Vulbas	9	8.18%

### Excellent Leadership

The quality of our managers is decisive for our corporate success and for the satisfaction and commitment of our employees. Owing to their functions, managers are in a position, to a considerable degree, to put their stamp on corporate culture. They contribute decisively toward creating a work environment in which people perform well and innovation is being encouraged.

In 2017, the Siegfried leadership model – derived from corporate strategy and corporate values – was introduced at all sites. This leadership model including the key corporate values illustrates, on the one hand,

what we expect from our managers and, on the other hand, what employees may expect from a manager. Siegfried's performance management process represents a key element of leadership, of the development of our employees and of monitoring goals with relevance for the company. The process is implemented uniformly at all sites and, where possible, across all levels of hierarchy. The scope of this process foresees a target-setting meeting at the start of the year, an appraisal interview at the end of the year and a mid-year review. Corporate targets as well as functional and individual targets are set for each employee. Weighting of the target categories varies in accordance with the functional level. Corporate targets are weighted more strongly at the management level, while individual targets enjoy higher weighting at the employee level. In terms of strengthening a uniform performance culture, an employee's individual performance within his or her management team is discussed within the parameters of calibration meetings. This process step ensures that performance assessment is carried out uniformly and balanced, objectively and fairly across all functions.

In 2017, a leadership workshop was again carried out at each of the sites for local management teams, the CEO and members of Executive Management to discuss Siegfried's principles of leadership and values in a local context and to define specific measures for their consolidation. Furthermore, in the year under review, the Siegfried Leadership Convention was carried out during which the 60 top members of management jointly discussed strategy and the significance of values and leadership principles for its implementation.

### Attractive and Responsible Employer

Siegfried aims to create and maintain secure and attractive jobs at all of its sites providing competitive working conditions while reconciling the interests of the company with those of its employees.

In addition to providing attractive employment conditions, which along with a market-oriented base salary include performance-related variable compensation elements and participation plans (also see detailed information in Remuneration Report, page 33ff), Siegfried attaches great importance to maintaining a balance between work, family and leisure time allowing our employees to be and remain efficient, creative and successful. Important elements in achieving this goal are given by the possibility to designing worktime flexibly, working part-time and taking unpaid leave.

Siegfried places high priority on a discrimination-free working environment in which employees develop personally and professionally, advance innovation and deliver superior performance. We do not tolerate any form of discrimination based on sex, race, ethnic background, religion or ideology as well as physical or mental disabilities. We consider our corporate culture to be an important foundation. It is based on the values of respect, loyalty, credibility, sustainability and compliance, and our Code of Business Conduct which was introduced at all sites in the course of 2017. For all Siegfried employees, the values and the Code of Business Conduct bindingly and uniformly define the expectations concerning our interactions with one another.

We put emphasis on regular, clear and open communication allowing all employees to develop a good understanding of the strategy and the economic interrelations and the resulting acceptance of corporate goals and department objectives. Information events and workshops are carried out several times a year with the aim of promoting dialog and an exchange of information between employees and higher management. In addition, the information events and workshops serve to present current business developments and information concerning strategy and other important issues and projects.

Siegfried looks back on a long tradition of solution-driven cooperation with employees in the spirit of social partnership. Siegfried respects the right of each employee to join an employee representation or a union. We cultivate direct, transparent and constructive dialog with all representatives of employees and unions. Joint information meetings and discussions

# 92

apprentices at 5 Siegfried sites

# 150

employees in Zofingen were examined by the Institute for Occupational Medicine (ifa Baden) and assessed for their capacity to work.

## Sustainability Figures

Employees as per 31 December <sup>1</sup>		2017		2016	
<b>Permanent employees</b>					
Zofingen, Switzerland	Number/total	543		529	
Evionnaz, Switzerland	Number/total	298		351	
St. Vulbas, France	Number/total	110		129	
Pennsville, USA	Number/total	159		159	
Irvine, USA	Number/total	112		102	
Malta	Number/total	128		122	
Nantong, China	Number/total	204		212	
Hamel, Germany	Number/total	441		433	
Minden, Germany	Number/total	336		347	
Group	Number/total	2 331		2 384	
Full-time employees	Number/%	2 126	91.2%	2 175	91.2%
Part-time employees	Number/%	205	8.8%	209	8.8%
Apprentices/number of apprentices of the total stock	Number/%	92	3.9%	84	3.5%
<b>Temporary employees</b>					
Zofingen, Switzerland	Number/total	107		104	
Evionnaz, Switzerland	Number/total	13		35	
St. Vulbas, France	Number/total	16		2	
Pennsville, USA	Number/total	2		2	
Irvine, USA	Number/total	7		17	
Malta	Number/total	4		7	
Nantong, China	Number/total	2		8	
Hamel, Germany	Number/total	63		49	
Minden, Germany	Number/total	74		59	
Group	Number/total	288		283	
<b>Diversity<sup>2</sup></b>					
Female employees	Number/%	670	28.7%	661	27.7%
Male employees	Number/%	1 661	71.3%	1 723	72.3%
Women upper management	Number/%	4	0.2%	4	0.2%
Male upper management	Number/%	42	1.8%	41	1.7%
Women middle and lower management	Number/%	85	3.6%	88	3.7%
Male middle and lower management <sup>3</sup>	Number/%	243	10.4%	298	12.5%
Female full-time employees	Number/%	498	74.3%	480	72.6%
Female part-time employees	Number/%	172	25.7%	181	27.4%
Male full-time employees	Number/%	1 631	98.2%	1 695	98.4%
Male part-time employees	Number/%	30	1.8%	28	1.6%
<b>Demographics</b>					
Employees up to age 30	Number/%	359	15.4%	354	14.8%
Employees between age 31 and age 50	Number/%	1 309	56.2%	1 368	57.4%
Employees above age 50	Number/%	663	28.4%	662	27.8%
Average age of employees	Age	41.7		41.7	
<b>Attrition rate</b>					
Exits/attrition rate female employees	Number/%	69	3.0%	51	2.2%
Exits/attrition rate male employees	Number/%	240	10.3%	168	7.0%
Total turnover rate	Number/%	309	13.3%	219	9.2%
<b>Lost working days due to accidents and sickness</b>					
Lost working days due to work-related illness	Number of days/%	18.0	0.1%	0.0	0.0%
Lost working days due to illness <sup>4</sup>	Number of days/%	22 529.4	92.0%	21 262.2	94.2%
Lost working days work-related accidents/ quota of days lost	Number of days/%	423.5	1.7%	361.5	1.6%
Lost working days not work-related accidents/ quota of days lost <sup>4</sup>	Number of days/%	1 509.1	6.2%	949.5	4.2%
Total lost working days	Number of days/%	24 480.0	100.0%	22 573.1	100.0%
Lost working days per employee	Ø day per Number/ %	10.5	4.8%	9.5	4.3%

<sup>1</sup> Source: Siegfried ERP system (SAP HR), as per 31.12.

<sup>2</sup> Only related to permanent employees

<sup>3</sup> Deviation from 2016 data due to correction of data after implementation of Siegfried grading structure in Minden and adjustment of reporting to global structure for Nantong

<sup>4</sup> Hameln and Minden: Not work related accidents/quota of days lost are included in section "lost working days due to illness"

concerning Siegfried's business development and measures concerning workplace and co-determination aspects are carried out at regular intervals. Collective labor agreements are available to substantial groups of employees in Switzerland, Germany, France, Malta, China and the USA. A total of 1 067 individuals, or 45.8% of all employees, are subject to a collective employment agreement.

**GRI102-41** At all sites we unconditionally respect the local statutory regulations concerning labor and the international standards of the International Labor Organization (ILO). At all sites Siegfried remunerates its employees above the legal minimum wage and does not employ minors. At Siegfried, part-time employees and employees with a fixed-term work contract are treated in the same way as full-time employees with regard to basic pay and additional benefits, especially pension provisions, accident and daily sickness benefits.

### Employment Development

As at December 31, 2017, the Siegfried Group employed 2 331 employees worldwide. The number dropped slightly compared to the previous year owing to staff reductions at the Evionnaz and St. Vulbas site due to outsourcing of Maintenance activities to Bilfinger Industrial Services and to realizing synergy potentials in connection with the acquisition of the BASF sites in 2015. As a consequence of the aforementioned effects the group-wide fluctuation rate increased to 13.3% in the year under review (2016: 9.2%). The fluctuation rate includes all terminations of contract (either on the part of the employee or the employer), outsourcing as well as retirees and deaths.

Siegfried employs about 169 external staff worldwide. They are employed mainly in production and production-related fields such as laboratory and warehouse, to cover for production peaks and long-term absences. All of Siegfried's partners relating to external employees maintain legal regulations and pay minimum wages. Basic salaries of external employees are comparable to those of Siegfried's own employees.

### Outlook

We plan to further increase the effectiveness of our human resources activities and the performance of our managers within the coming months.

Our focus will be on higher flexibility and agility as well as maintaining our organization's efficiency. In the coming years, Siegfried will therefore continue to focus strongly on the empowerment of employees and managers while putting even greater emphasis on preventive health management.

# 2331

employees working for Siegfried worldwide at the end of 2017

# 45.8%

of all employees or 1067 individuals are subject to a collective employment agreement

## 5. Corporate Social Responsibility

### 5.1 Local Population

Siegfried's responsibility extends beyond the direct influence of the company. Where it is in our power, we contribute a sustainable development of society. The commitment to society is firmly anchored as a central component in our conception of ourselves. In particular, we invest in sustainable development and promotion of education projects and we support various local associations. We are convinced that our commitment is to the benefit of the local inhabitants.

As a responsible economic power and employer, Siegfried supports social projects and institutions as well as culture and sports clubs in the communities surrounding our sites. A focus is put on education projects, especially in science, to put young people in contact with science as early as possible, and to show them career opportunities in this field. Siegfried annually budgets a considerable amount for such activities. Siegfried is also committed to the other sites and provides a budget to the sites.

Siegfried cultivates direct contact with the local authorities. At regular meetings with local leaders, Siegfried engages in the concerns of the local population. The responsible employees at the various sites take note of the concrete desires and suggestions and, if feasible, implement them, especially those concerning safety and environmental protection. At the various sites, safety brochures are distributed to the site's neighboring population, such as the "Neighborhood Brochure" in Minden. As a result, Siegfried is a popular and well-respected employer. There are no concrete disputes with and/or unfulfilled requests from the general public and the political leaders at any site.

In Switzerland, the focus is on the Zofingen and Canton of Aargau region. Siegfried supports, for example:

- Social projects in Switzerland
- Political involvement of employees by means of flexible working time regulations
- Culture and sports clubs in the wider surroundings
- Youth work.

### Outlook

In the future, Siegfried will continue to maintain its social responsibility and its memberships and to cultivate contact with the local population at all sites. By doing so, the company creates a basis of trust. The goal is to also increasingly establish these commitments on a cross-site basis and thus better utilize the synergies arising among the various sites and countries and regions.

### 5.2 Political Representation of Interests

Reliable framework conditions and societal acceptance for our corporate goals make it possible for Siegfried to operate successfully in the long-term. Dialogue with politics, government and the society in general is a part of Siegfried's sustainable corporate management and offers the opportunity to find viable solutions. This dialogue is subject to Siegfried's corporate principles and follows the values of honesty and objectivity.

In exchanges with political committees and decision-makers our aim is obtain good framework conditions for industry in general and especially for the chemical-pharmaceutical industry. We are committed to a competitive site, an innovative environment as a basis for research and development and an excellent education system, both in the occupational and the academic areas. Global free access to markets is of great importance for Siegfried at all sites.

Important current issues are:

- Research and innovation
- Education
- Open borders and thus the opportunity to find the best talent for Siegfried
- Free movement of goods
- Comparable conditions for all manufacturers worldwide, including what involves the regulatory environment

For these issues, Siegfried engages itself throughout Europe, at its headquarters in Switzerland and at the sites.

Siegfried provides support especially in connection with referendums in Switzerland and, occasionally, political parties or candidates which share the company's political goals. Siegfried spent almost 10 000 Swiss francs in the reporting year on referendums in Switzerland, which concern the interests of business in general and companies in the chemical and pharmaceutical industries in particular. Direct support to business-friendly parties amounted to about 4000 Swiss francs. Candidates were not supported directly in the reporting year. Siegfried did not provide other non-cash benefits to either parties or individual politicians.

Furthermore, Siegfried is a member of scienceindustries, the Swiss Chemie Pharma Biotec economic umbrella organization; the Swiss Society for Chemistry (SCU); and the Swiss Society for Health Policy. Siegfried is also a member of Park InnovAare, an organization which merges economy and science in the Canton of Aargau. The manager of Pharmapark Zofingen has a seat on the board of "scienceindustries". He is the vice-president of the Aargau Chamber of Industry and Commerce AIHK and president of the Zofingen Economic Region Association WRZ.

The additional memberships of the Siegfried Group and the companies at the individual sites are:

Group		
		European Fine Chemical Group (EFCG); Sector group of the European Chemical Industry Council (Cefic) scienceindustries Chemie, Pharma, Biotech Economic Association Switzerland Swiss-American Chamber of Commerce Swiss-Chinese Chamber of Commerce The Association of Swiss Enterprises in Deutschland (VSUD) Avenir Suisse DCAT Drug, Chemical, & Associated Technologies Association, USA SOCMA Society of Chemical Manufacturers and Affiliates, USA
Zofingen	Switzerland	Aargau Chamber of Industry and Commerce (AIHK) Zofingen Economic Region Association (WRZ) Park InnovAARE
Evionnaz	Switzerland	Chambre Valaisanne de Commerce et d'Industrie Groupement Romand Industrie Pharma Union Industriels Valaisans
Hamel	Germany	AdU (Employers' Association of Business in Weserbergland) ChemNord (Employers' Association of the Chemical Industry in Northern Germany) BME (Bundesverband Materialwirtschaft, Einkauf und Logistik) Weserbergland AG (network of businesses)
Minden	Germany	Arbeitgeberverband für die Chemische Industrie Ostwestfalen-Lippe e.V. East Westphalia Chamber of Industry and Commerce (IHK) Association of the Chemical Industries (VCI)
St. Vulbas	France	Union des Industries Chimiques (UIC) Mouvement des entreprises de France (MEDEF) Plaine de l'Ain Industrial Park (PIPA)
Hal Far	Malta	Malta Chamber of Commerce Malta Employers Association Foundation for Human Resources Development
Pennsville	USA	SOCMA Society of Chemical Manufacturers and Affiliates NJBIA (New Jersey Business & Industry Association) Salem County Chamber of Commerce Employers Association of New Jersey
Irvine	USA	International Society of Pharmaceutical Engineers (ISPE) Parenteral Drug Association (PDA) American Society of Quality (ASQ)
Nantong	China	SwissCham Shanghai Nantong Pharmaceutical Association

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