

# Maintain Position among the Global Leaders

In 2018, Siegfried again performed very well. In its first two years, the "Evolve" strategy more than successfully passed its baptism by fire. These are outstanding requirements to achieve our ambitioned goal, namely to grow faster than the market and assert ourselves as the leading CDMO (Custom Development and Manufacturing Organization) worldwide.

Wolfgang Wienand, Siegfried's CEO, clearly formulates his company's vision: "Siegfried is growing to become the first address for pharmaceutical companies of all sizes and to advance into the top league of global CD-MOs. This high set goal will make great demands on us. Thanks to the best team and our outstanding network we will succeed." The chances are good that Siegfried can realize its ambition. Siegfried is positioned in an attractive segment as both, the pharma and the outsourcing markets, are growing, the latter stronger than the former (for more information, see chapter "Market" on page 16). Moreover, the CDMO market is heavily fragmented with many sometimes small suppliers, the five largest represent a share of below 15 percent. This is the segment in which Siegfried aims to play an active role. It implies that we continue to grow at an above-average rate and on our own steam, both in terms of sales and earnings. This is significant as size is a decisive factor. Size not only drives profitability but provides capital strength required for acquisitions and creates production capacity for the necessary operational flexibility. The "Evolve" strategy will secure these capabilities across the long term.

#### "Expect more":

#### **Customer Focus at the Core**

At Siegfried, customers are at the center of its focus. We aim to become the leading customer-centered organization. Various quali-

ties provide the basis for our foundation: We relentlessly search for the best solutions and strive for scientific and technological excellence. Our facilities produce efficiently and at the highest level. We seamlessly integrate our solutions into our customers' value chain and demonstrate high delivery reliability. We are uncompromising in terms of product quality and reliability. The people at Siegfried play a central role in fulfilling all of these qualities. That is why we have invested and continue to do so in the capabilities of our teams and in management culture (for more information, see chapter "Organization" on page 22).

#### Focus on Clearly Defined Fields of Activity

How does Siegfried intend to implement the "Evolve" strategy in the coming years while continuing to grow sustainably profitable? Our focus is on expanding our technology portfolio, improve the integration of all of our services and capabilities into our customer offer and grow by means of acquisitions.

The "Evolve" strategy represents a chess-board of options which we can play depending on opportunities and value creation. While Siegfried can exert influence on certain options (organic growth, technological basis), others are not under our control. The large number of potential growth and M&A routes that Siegfried can follow independently of each other increases the likelihood of closing a transaction that will generate enduring value.

#### Acquisitions in a Strongly Fragmented Market

Targeted acquisitions will represent an essential share of the Siegfried Group's growth. In this way, the Siegfried Group can rapidly gain market share, strengthen the global network thanks to the resulting synergies, and further strengthen its position among the leading integrated CDMOs.

The Siegfried Group continually analyzes the M&A market in its industry as well as all relevant transactions. Siegfried carried out no M&A transactions in 2018 since we as a disciplined purchaser will consider an acquisition only if asset quality and transaction value of the company to be acquired commensurate and create long-term corporate value. None of the potential acquisitions in the M&A market fulfilled Siegfried's internal criteria. In the recent past, many transactions were made at very high valuations, even clearly above the valuation level on the equity capital markets which themselves quoted record levels across long stretches in 2018.

The significance of biopharmaceuticals is growing. In the coming years, this market will grow fast for more information, see chapter "Market" on page 16). Siegfried has consistently invested in this market segment for several years, for instance, in the finished dosage forms of this substance class at our site in Hameln. By means of selective investments, Siegfried will continue to access certain elements of the biologics market. Where the conditions are right, a corresponding acquisition is conceivable.

We are striving for growth also in the field of finished dosage forms, both in solid oral dosage forms (tablets, capsules) and in sterile filling of liquid drug substances. By means of external growth, mainly in the USA and Europe, Siegfried aims to obtain access to competition-related capacity and technologies to consolidate critical size in this field. Hand in hand with this expansion, we aim to strengthen our capabilities in development.

Overall, Siegfried has at its disposal numerous potential M&A routes to follow which do not mutually exclude each other. On the contrary, they can be implemented in line with the best of value-added logics and availability of assets. This circumstance increases the likelihood for Siegfried to implement a transaction that will generate sustained value.

#### Optimized Offer and Enlarged Technology Portfolio

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Siegfried aims to contribute toward growth in the coming years by means of various internal measures and strong partnerships. In drug substance production, the Nantong plant will increase utilization, thus contributing toward profitability of the company as a whole. Furthermore, we shall systematically expand our technology portfolio in order to strengthen our position as a strategic partner of our customers. In terms of handling highly effective drug substances, safety for employees and customers is paramount. We invest in technologies like micronization (miniaturization of drug-substance particles) and the production of highly effective drug substances and final dosage forms. In the field of aseptic filling we implement technologies used in filling biopharmaceuticals. In Zofingen, we have created 40 additional laboratory workplaces and significantly increased capacity.

The modern logistics building was completed in the year under review. It is located in close vicinity to the production facilities which simplifies processes. In Hameln, Siegfried has invested in new facilities for aseptic filling of biologically produced substances. In Irvine, we expanded production area and installed additional plant to increase production capacity.

#### The Global CDMO Market



The CDMO competitive landscape is heavily fragmented: the top 5 players share less than 15 percent of the market.

#### The "Evolve" Strategy at a Glance: Fields of Action

Acquisition Drug Substance

— Continue acquisitive growth in small molecule Drug Substance

— Depending on opportunity, acquire small scale biologics manufacturing assets

Acquisition Drug Product

 Acquisitive growth in oral solid dosage form and sterile/aseptic filling capacities in Europe and US

Organic expansion biologics (Drug Product)

- Organic expansion in adjacent areas: aseptic fill & finish as well as formulation development for biologics
- Investments in technology base
- Grow our technology base in small molecule manufacturing (e.g., micronization, high potent API)

CEO INTERVIEW

# Interview Dr. Wolfgang Wienand Chief Executive Officer



We have to be top class in our daily business while, at the same time, we aim to keep pace with the ongoing consolidation process in the market. A company actively shaping a consolidation process must be fit. We are fit.

#### Interview

**Dr. Wolfgang Wienand**Chief Executive Officer



Please also find this interview with our CEO Dr. Wolfgang Wienand at report.siegfried.ch

## Siegfried operates in a market that is very fragmented. The ten largest companies cover less than 20 percent of the market. Is that a blessing or a curse for Siegfried?

It is true that the CDMO (Custom Development and Manufacturing Organization) market remains strongly fragmented although numerous acquisitions and mergers have been carried out in the past ten years. This situation holds several challenges for Siegfried. We have to be top class in our daily business while, at the same time, we aim to keep pace with the ongoing consolidation process in the market. A company actively participating in a consolidation process must be fit. We are fit.

#### How would you characterize this fitness?

We can fall back on our own experience. Any company wishing to acquire and integrate has to be well positioned in its daily business and be in a position to free up resources. In this regard, we succeeded extremely well with the integration of the BASF production sites completed more than a year ago. Moreover, a company aiming to grow by means of acquisition has to be financially robust in order to avoid embarking on any adventures in relation to the financing. In this regard, Siegfried is also fit.

#### Do changes on the customer side, in other words, the international pharmaceutical companies, influence developments in the CDMO industry?

Certainly. Although the pharmaceutical industry has completed its consolidation process, we continue to see very expensive acquisitions. Therapies and drugs are becoming increasingly complex. In this situation, pharmaceutical companies increasingly focus on research, clinical development and marketing. Their own production activity is losing significance and is no longer regarded as strategic. That is where we as service providers and problem solvers come into play by taking over these tasks for the pharmaceutical companies.

#### Pharmaceutical companies pass on to us margin they could have retained had they continued their own production activity. Why then the trend toward outsourcing?

It is extremely important that our customers obtain their product on time and in the desired quality. That, however, is only a part of the strategic cooperation. We lower complexity for our customers' supply chain because they can leave all aspects concerning production to us, namely procurement, development, synthesis/formulation, compliance and logistics. We help them avoid

costly investments and lower their financial exposure and risk. This awareness is catching on increasingly. Today, outsourcing is no longer an option in the event of an emergency, but a generally accepted and recognized business model.<sup>1</sup>

#### The "Evolve" strategy, however, embraces aspects not directly connected to these requirements.

That may be the case at first glance. Ultimately, as a part of a strategic partnership, it is our aim to satisfy as many of our customers' needs as possible. A broad offer from a single source simplifies outsourcing for our customers and, therefore, saves resources. That is why we aim to broaden our technological base, and that is why we aim to grow. In addition to sufficient equipment availability, broad-based cooperation with large strategic customers requires a strong and well-established organization in order to be reliable and remain flexible. We aim to be a strategic supplier and partner of our pharmaceutical customers that meets high demands concerning technology, quality, development and logistics. This is the reason why we will expand our technology portfolio.

#### We've talked a lot about hardware. In the first three months of your new function you visited all of the sites. How fit are Siegfried's employees?

As a former high-performance athlete, I would like to answer that as follows: Siegfried and Siegfried employees play in the first league. Nevertheless, there is room for improvement, processes that have not yet been fully established and market opportunities not fully seized. We have to work

hard to reach the top of the first league, and then we have to work hard to remain there. This is a process that never finishes. By setting your sights high, you will identify a lot that calls for improvement and requires a high need for training. Always.

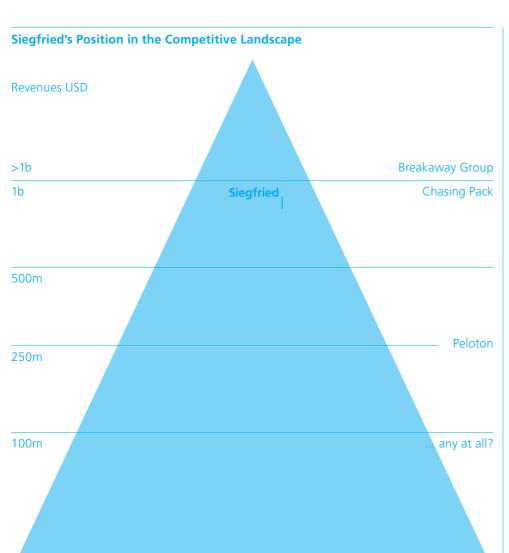
#### What are Siegfried's goals for the 2019 financial year?

Strategically, we will continue on the tried and tested "Evolve" path and take the next growth steps as soon as possible without exposing the company to any adventures. Internally, we are working on our competitiveness and customer orientation. We have developed concrete plans of action for each of our sites in order to optimize our network as a whole. I am convinced that at the end of this year the Siegfried Group will again have made considerable progress on its path to the top.

#### Do you have any personal goals?

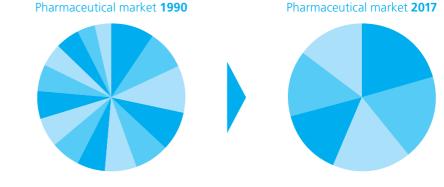
For this year, I have set two personal goals for myself, apart from the goals for the company we talked about earlier: first, promoting team spirit and demonstrating it by example. We want to become the strongest team in our industry. And second, to make direct contact with as many employees as possible so they can get to know me and I understand their needs and concerns. I have already made very good progress concerning both goals, which I am very glad about.

<sup>1</sup> For more information, see the illustration "Siegfried as a reinsurer" on page 18.

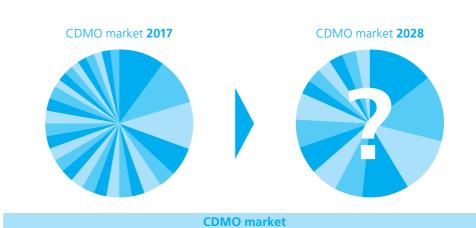


#### Fragmentation of Pharmaceutical and CDMO Market

The fragmentation and subsequent consolidation which has already occurred in the pharmaceutical market, is taking place in the CDMO market.



#### Pharmaceutical market



# Promising Market Perspectives

Prognoses for the pharmaceutical and the CDMO<sup>1</sup> markets are very promising. The latter is strongly fragmented and provides potential for acquisitions. These are positive perspectives for Siegfried to continue on its path of growth.

The pharmaceutical industry is undergoing change. Shifting customer needs and fundamental developments in the industry will provide additional positive impulses to the CDMO market in the coming years. Leading pharmaceutical companies increasingly focus on research and clinical development and marketing. As a result, they outsource own production capacity. By means of strategic outsourcing they reduce investments in production facilities and can improve the return on capital employed. Figures substantiate this assessment: While in the last ten years the revenues of these companies grew worldwide by almost 30 percent, they expanded production facilities in the form of tied capital by only nearly 10 percent. There are good reasons for this: High capacity, risks in clinical development and the pressure to develop high quality at low production costs motivate the pharmaceutical industry to outsource. The latter is all the more the case for the phase following expiry of patent protection: experience shows that sales prices for generic drugs are declining by up to 95 percent. If margins are to remain only remotely unchanged, cost reductions are unavoidable. In this context, forward-looking life cycle management is gaining strategic importance for which companies such as Siegfried with their integrated business model are predestined as strategic partners.

A further market trend can be recognized in new, innovative drugs. They frequently originate from small or mediumsized companies and startups without process development or own production capacity, a development which is also in favor of the CDMO industry. Moreover, increasing complexity of modern medicinal therapies requires companies or strategic partners such as Siegfried. Thanks to their extensive offer in the area of drug substances and finished products, they are in a position to bring to market products at the highest level of quality and at low costs in a short period of time.

#### **Outstanding Growth Prospects**

OECD statistics that include the USA as reference market expect annual growth (CAGR) for the healthcare industry of approximately 5 percent. The same is true for the pharmaceutical and medical technology market, which is of relevance to Siegfried. The CDMO market will grow even more significantly until 2022, namely at 6.2 percent per annum (CAGR). All CDMO segments and all regions will enjoy growth, finished dosage forms more so than drug substances. We expect highest growth in sterile and aseptic dosage forms, and here we continuously invest in new capacity and skills. Besides strategic outsourcing, innovative drug substances and drugs represent a significant driver of above-average growth in the CDMO sector. As a result, the CDMO industry will have to expand its technological basis in order to fulfil the increasing requirements related to development, production and process quality (for more on this topic, see the "Strategy" chapter on page 13).

#### **Favorable Constellation for Siegfried**

All in all, it is a justified conclusion that the market environment creates favorable conditions for Siegfried to achieve its ambitious growth targets. The "Evolve" strategy (for more on this topic, see the "Strategy" chapter on page 13) is the answer to the trends described above. Increasing complexity of the business and considerable development risks motivate large pharmaceutical companies and smaller companies to cooperate with strategic partners for fully integrated solutions – starting with development at an early stage through to industrial production.

- <sup>1</sup> Custom Development & Manufacturing Organization
- <sup>2</sup> OECD, Global Data 2016, www.stats.oecd.org <sup>3</sup> EvaluatePharma World Preview 2018; Visiongain
- Market Report Pharmaceutical Contract Manufacturing Market 2017

#### 3 Questions to

Marianne Späne Head Business Development, Marketing & Sales



We recognize a growing readiness among pharmaceutical companies to outsource services for the development and production of drug substances and finished dosage form drugs. How is this reflected in the field of Business Development?

On the one hand, we recognize a growing interest among our larger pharmaceutical customers to outsource their activities and reduce the number of suppliers by means of strategic partnerships. Consequently, a customer expects a Custom Development and Manufacturing Organization (CDMO), such as Siegfried, to provide a broad portfolio of technical capabilities at various sites and to reflect high quality awareness. With its overarching quality system, Siegfried is capable of covering the entire value chain from intermediates through to finished dosage forms.

On the other hand, we recognize a growing trend in smaller to medium-sized companies – often referred to as "emerging pharma" – looking for a supplier with production expertise. By means of business excellence programs we have not only developed life cycle management for products at the end of their patent expiry cycle, but also an interesting platform for companies producing generic products. We therefore cover a broad customer portfolio. In this trend we recognize

large potential for Siegfried. As we operate in a regulated environment, the trend often cannot be implemented at the desired speed.

Increasingly, Business Development and Account Management serve a demanding clientele. Only companies that are well positioned as a team will be able to take full advantage of opportunities.

#### Siegfried's integrated offer is a frequent topic of discussion. Is it being accepted by customers, and do they understand it?

The integrated model offers advantages at various levels, especially with regard to the growing trend toward outsourcing. By means of its integrated offer, Siegfried provides an attractive platform for strategic partnerships.

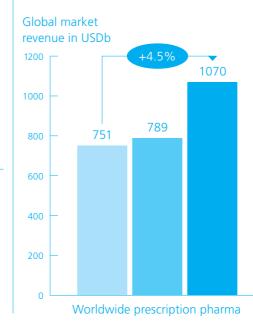
In the case of smaller to medium-sized customers, we are capable of providing the entire supply chain while they can focus on their research and marketing capabilities.

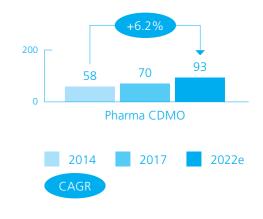
Thanks to the integrated offer, large customers entrust us with both drug substances and finished dosage forms which, in turn, creates a strategic CDMO partnership. Customer can take full advantage of our broadbased capabilities.

#### What are the central elements of your customer dialogue?

It is always important to know the needs of customers and to address them. We follow a dual approach in that we initiate new business and also consider individual support of existing customers to be key to success. We work in teams in order to effectively contribute our capabilities. We are our customers' permanent contact and secure communication at various levels. Technical and business oriented teams on both sides work hand in hand and are often referred to as twins. We use balanced score cards and regularly exchange agreed upon indicators, define measures and monitor implementation. We are used to working in matrix organizations, in other words, overarching departments and product segments. A defined communications strategy and interdisciplinary cooperation are a must in order to successfully manage a strategic partnership. The bar is set high, and we shall do everything in our power to meet these expectations in accordance with our motto, "expect more".

#### Global prescription pharma market vs. Pharma CDMO Market





The worldwide prescription pharma market is growing at approx. 4.5%, while the worldwide pharma CDMO market is growing at more than%.

Growth global prescription pharma market

4.5%

Growth global pharma
CDMO market

6.2%

The evaluation report forms the

At the same time, for the duration

basis for the commercial offer.

of the offer validity, technical

departments.

resources will be reserved in the

#### **Offer Process**

Project Acquisition

Acquisition of project enquiries through Business Development Submission of offer

An initial technical assessment is carried out within 48 hours of request entry, including:

- What exactly is the customer asking for (scope)?
- Chemical-technical assessment of feasibility
- Cost estimate to identify

Project

The assessment serves as the basis for defining the offer strategy (incl.development site and production site).

The decision if an offer is to be submitted is taken by the Project Committee (PCom), a global group meeting on a weekly basis. The committee ensures the timely preparation of the technical evaluation and the offer.

Participants of PCom:

- Lead: Global Head Project Management
- Global Head Business Development & Sales
- Business Development Manager
- Multi-Site Heads
- Head Supply Chain and Planning
- Head Production Planning Sites
- Global Head Research and Development (Chief Scientific Officer)
- Site Heads R&D
- Head Evaluation

Technical Evaluation

An in-depth technical evaluation of the project request represents the basis for preparing an offer. At Siegfried, the evaluation is carried out by those sites and departments that will implement the project once the contract has been signed.

In the evaluation phase, a Project Leadership Team (PLT) is established which will carry out the evaluation.

Participants of the PLT:

- Lead: Project Manager
- Business Development
  - Manager
- Research & Development Manager
- Analytical Project Leader
- Production Chemist— Quality Assurance Manager

Business Development Manager

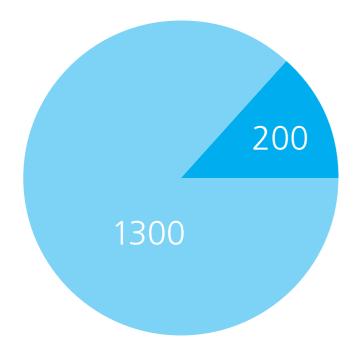
Chemical/
harmaceutical
Development
Project Leadership
Team (PLT)

Analytical
Development
Scale-up/
Production

**Siegfried API portfolio** 

4 O MiO patients per year

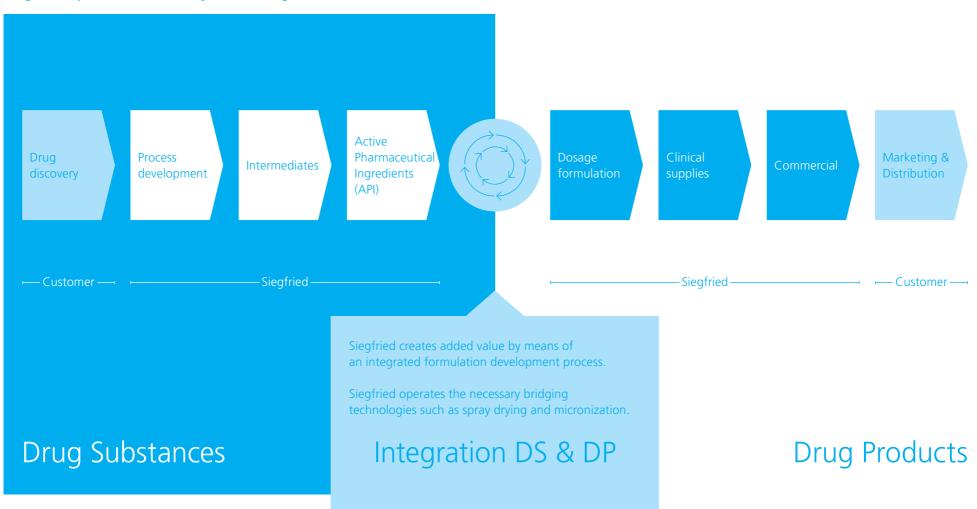
By means of its current portfolio, Siegfried's customers serve about 40 million patients a year.



Siegfried produces about 200 of the approx. 1500 FDA approved APIs worldwide, and is therefore an important source to secure the therapy of numerous patients.



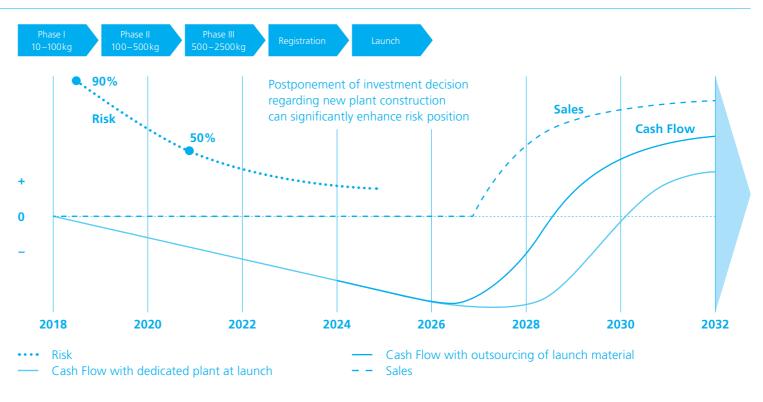
#### **Drug Development from Discovery to Marketing**

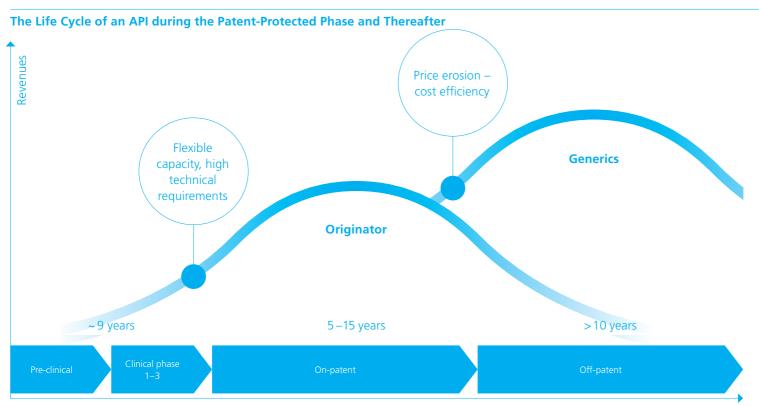


#### **Siegfried as a Reinsurer**

Strategic outsourcing improves the capital efficiency of pharmaceutical companies. Increasingly, therefore, production and scale-up are no longer considered core competencies of pharmaceutical companies.

Like a reinsurance company, Siegfried takes on development and production risks for its customers. This allows customers to initially forego investment in early phases or entirely in own costly production plant. Moreover, Siegfried can cushion production bottlenecks and help customers secure their delivery capacity at all times. This is attractive to our customers in the pharmaceutical industry as the development of drugs is growing increasingly complex and the risk for drug companies rising.





Siegfried operates not only in the innovative pipeline-business for customers in the pharmaceutical industry but also accompanies products throughout their entire life cycle right up to the generic phase, which is the most cost sensitive. We are also capable of acquiring products at the stage of their entrance into the generic phase.

In our network with its differentiated positioning of individual sites, Nantong takes on the role of cost leader in the production of non-patent-protected products. In Nantong we can produce at competitive prices even following expiry of patent protection.

Splitting the pipeline business into patent-protected drug substances and the production of generic drug substances helps reduce the volatility of our business.

# Technology and Process Innovation as Value Drivers

One of Siegfried's core competencies as a worldwide leading supplier refers to technological innovation and mastering complex production processes. Targeted expansion of these capabilities represents a significant element of the "Evolve" strategy.

The Siegfried Group strives to meet its customers' varied and complex demands by taking a two-fold approach. On the one hand, Siegfried integrates complementary chemical and pharmaceutical capabilities in a single business model covering the entire range of products from drug substances to finished dosage forms while, on the other, we operate a diversified worldwide network of development and production sites in Europe, North America and Asia. This allows Siegfried to offer individual solutions while maintaining high flexibility, delivery reliability and efficiency during patent protection and thereafter. Fitting together these elements to create value requires constant investment in developing our technology portfolio and optimizing operational procedures. Targeted improvements concerning technology and process innovation were defined as central value drivers in the strategic phase of the "Transform" strategy (2010 -2016) and even more accentuated since launching the "Evolve" strategy in 2017.

#### **Early Quality**

Chemical development deals with chemical synthesis processes and the subsequent physical processes, such as crystallizing, drying and milling. Analytical development serves as a control function of chemistry by examining products concerning cleanliness or contamination and develops connected analytical procedures. While functionally both segments operate independently, they are harmonized in the process chain. Consequently, we invest in this area at an early stage, which is decisive for the subsequent process steps.

#### Massive Expansion of Drug Substance Development

In the year under review, Siegfried strengthened both chemical and analytical development. Both areas employ extremely well

educated employees, about half of them university graduates. In the past 5 years, the number of employees in chemical and analytical development grew acquisition-related by about a quarter. In 2018, as laboratory capacity reached its limits, 40 additional laboratory workplaces were established in Zofingen, allowing us to process and coordinate more development projects in the future. Expansion of activity demanded a new organization and focus in the chemical development group. Consequently, chemical process development, which serves as an important interface in the technology transfer between customer and Siegfried and among Siegfried sites, became considerably more effective. Zofingen, together with Evionnaz and Nantong, represents the groupwide center of competence.

#### **Numerous Technological Innovations**

In Zofingen, additional state-of-the-art workplaces were established for synthesis and analysis as well as a special laboratory serving safe and dust-free handling of solids and highly potent drug substances. We now can mill or micronize highly potent drug substances at laboratory scale in a made-to-measure laminar-flow chapel without endangering employees or the environment.

We made further progress in laboratory automation, process development, process safety, and quality by design. Modern software and devices help us to perform experiments in such a way that we can use the collected data to simulate chemical and physical processes at production scale and facility specifically. This reduces scale-up risks and increases both product quality and process safety. We presented this approach by means of successful examples at several conferences, among them the annual conference of the Swiss Chemical Society.

In the year under review, we installed an additional micronization mill. In close coor-

dination with a customer, we integrated a loop mill into the existing pilot plant as a pilot. The mill was installed, tested, qualified and taken into operation in record time. The procedure based on the mill was successfully developed and validated. Furthermore, for a customer we micronized initial commercial volumes of a highly potent drug substance.

#### **Siegfried Continues to Grow Together**

The "Evolve" strategy encourages the company's continued growing together worldwide - an important requirement to successfully put into practice the business model. We successfully implemented several projects across all sites in 2018. In Zofingen, a technology group for demanding crosssite tasks was formed and initial webinars were carried out on issues concerning process simulation, process safety and process analysis, thereby increasing the level of knowledge at all sites of the Siegfried Group. Experts on process safety from Minden, Evionnaz and Zofingen met at group headquarters for continued training and coordination activities.

#### 3 Question to

**Dr. René Imwinkelried** Head Technical Operations



# The Siegfried Group emphasizes its attractive network and invests huge sums in cross-site cooperation and synergies. How do you evaluate the progress made in the year under review?

We pressed ahead with process and technology transfer among the individual sites. As a result, we can support our customers in their need for dual sourcing by means of our network while offering them flexible development and production capacity. This gives them an assurance in case their products establish themselves in the market above expectations. Cooperation grows steadily by means of targeted investments at our various sites. Our site in Nantong is developing into an increasingly significant partner. Moreover, we continuously strengthened the development hubs in Zofingen and Evionnaz. In the field of sterile filling, our next step is filling of biologically produced drug substances.

#### Which will be the next milestones in Siegfried's operational excellence, and how do you measure its success?

As a strategic partner of the worldwide pharmaceutical industry, it is essential that we are among the best in terms of operational excellence. Therefore, for me personally, this issue is an essential cornerstone of success in my organizational unit. Based on our network, we are in a position to exploit competitive advantages. We deliberately develop the capabilities of the individual sites differently, in order to fulfil customer needs and reach the best result for the entire network. We implement our operational excellence programs in this sense.

#### What does being a learning organization imply for Siegfried?

A learning organization must be capable and willing to learn in order to regularly adjust knowledge base and scope for action to new challenges. It must be able to recognize change fast and rapidly convey and implement the corresponding new requirements to our organization. Ideally, a learning organization is a system which is always in motion. New impulses are considered stimulation and used for development processes. This requires individuals who are

> Text continues on page 20

#### TECHNOLOGY, INNOVATION, PROCESSES

#### > Continuation of the interview «3 questions to Dr. René Imwinkelried»

open to new developments, are hungry and allow and support innovative solutions. Mechanisms that support such learning processes enjoy cooperation and conflict solving abilities, trust and team spirit. We work on this every day, with good results.

#### Business Excellence at Siegfried

Business Excellence has a high priority at Siegfried. It represents continuous development of the quality of management processes, and it supports individual sites in reaching their targets. While, at the beginning, the focus was put on process optimization, our ambitions have developed gradually. Today, in the Siegfried organization, we are at the level of a learning organization. This implies that all of our colleagues largely take responsibility for their thoughts and acts. As early as 2013, we started with concrete projects referring to process optimization in order to lower operating costs. One year later, initial training courses were started within the parameters of the internationally re-

nowned three-step Lean Six Sigma program. In 2018, we kicked off courses leading toward Black Belt certification and to be completed in 2019. This level focuses on high quality cross-functional and cross-site management skills, and it is authorized to train participants of lower Lean Six Sigma levels.

Within the parameters of our Business Excellence program in 2018 and 2019 we aim to focus on waste water issues, recycling and recovering solvents and on the reduction of waste in production. Moreover, in the year under review, we introduced standard processes concerning materials flow among our drug substance production sites

#### Filling of Biologically Produced Active Pharmaceutical Ingredients (API)

The market for filling biologically produced active pharmaceutical ingredients (API), so-called biologics, is attractive and future-oriented with above-average growth and earnings expectations combined with high barriers for entry by new competitors. Siegfried has invested in corresponding facilities at our sites in Hameln and Irvine. Customer interest in this field is lively and requests correspondingly large. In 2018, Siegfried presented its competencies in biologics at trade fairs while elevating the level of employees' expertise by means of internal and external training courses.

#### What are Biologics?

Biologics are drug substances with a complex molecular structure and a high molecular weight produced by means of biotechnology and genetically engineered organisms. They can consist of proteins, nucleic acid, sugars, or combinations of these substances. Typical examples are medications used in the treatment of inflammatory auto-immune disorders, cancer or insulin for diabetes therapy.

Fill & Finish for Biologics	<b>Hameln</b> Germany	<b>Irvine</b> USA
Development services	•	
Clinical batch manufacturing	•	•
Commercial batch manufacturing	•	•
Vials	•	•
Pre-filled syringes		•
Cartridges		•

#### Benefits Connected with Digitalization

For Siegfried, a technology and innovation-driven company, industrial digitalization presents a range of opportunities to be taken advantage of. Perspectives are made out internally in terms of innovation management, process management and quality management, and externally in the creation of novel business models.

Digitalization, which is connected with rapid technological development, opens up countless interesting possibilities for future-oriented companies. Siegfried has identified the trends relevant to the CDMO (Custom Development and Manufacturing Organization) industry and launched corresponding group-wide initiatives.

#### **Strategic Context Provides** the Framework

"Siegfried addresses the technological developments in the industry and evaluates promising measures. The priorities of the Evolve strategy (for more information see "Strategy" on page 13) represent the parameter of our activities. We thus avoid to get lost in the abundance of possibilities", says René Imwinkelried, Head Technical Operations. The strategy guidelines are clear: all ideas, projects and implementations must impact positively on business development and, therefore, competitiveness. To achieve this, Siegfried sets clear priorities and makes targeted investments in pilot projects and manages them by means of an agile process in accordance with "fail early, fail fast".

#### **Existing Business to** be Optimized Initially

Siegfried recognizes two areas of application in the field of digitalization. On the one

hand, we aim to design processes in the existing business model more efficiently and thereby further increase quality, service level and efficiency. On the other hand, digital services provide potential to develop new sources of earnings. Within the parameters of the Evolve strategy, Siegfried focuses mainly on optimizing operational procedures. René Imwinkelried: "With the help of new technologies we continue on our path of taking intelligent and consistent steps toward operational improvement. This approach has proven itself since ten years and produced added value for our customers as well as a substantial rise in earnings". Our focus on internal optimization does not mean that Siegfried's digitalization experts are neglecting options for new fields of business. Possibilities in this field are constantly being evaluated and implemented rapidly, if needed.

With regard to two technological trends, Siegfried recognizes particularly attractive prospects for the rapid implementation in efficiency and earnings improvements: In the Internet of Things, Siegfried recognizes a network of intelligent tools concerning early operational inefficiencies. One example is the preventive sensor technology in complex chemical-pharmaceutical development and production processes. The second focus trend, Advanced Analytics, which is based on further developed algorithms, enables Siegfried to obtain significantly more precise information on which to base strategic decisions or concerning future events.

Digitalization at Siegfried will continue to gain significance. We shall continue to follow the strict specifications of our strategic priorities to ensure a high level of effectiveness of our projects.

#### Focus Micronization

Micronization is fine milling to particles below 20 microns. It is a key bridging technology between drug substance and drug product services. Ultra-fine milling – micronization – can significantly improve bioavailability.

#### What is micronization?

Micronization is fine milling to particles below 20 microns.

In classical milling the particles are broken by mechanical impact with rotors or "hammers" but to further mill down the particles a more effective approach is needed. For this particle have to collide with other particles with high velocity, so that they splinter in smallest fragments. So micronization is performed with air jet mills or fluid energy mills. The spiral jet mill or pan cake mill is the working horse for this kind of operations. The material is introduced into the mill through a funnel with a venturi nozzle. The venturi nozzle works like a water jet injector known from car washing or garden just with air or gas. For example when you have small hole in a tube with water flowing though this hose you can fell that air is sucked in the tube so that you can inject e.g. a powder. Using this effect we introduce the powder in the mill. The mill is built like a pan. The powder is accelerated by tangential oriented nozzles on a circular orbit to a high

velocity in the subsonic speed. At the same time the nozzles disturb the particles, so that the particles collide with each other and splinter into fragments. The finer (lighter particles) will then change to an inner orbit whereas larger particles stay outside like in a chairoplane. This is repeated until particles are small enough to be flushed out of the mill

#### Why are APIs micronized?

The main reason to micronize APIs is to formulate the drug product independent for the particle size distribution by reducing its size so that e.g. the form of the crystals does not interfere with the downstream process. For example needle like crystals show the tendency to stick together and to felt so that nests with API may be formed in some tablets whereas other tablets may then nearly no actives

But even more important is that smaller particles dissolve faster than larger particles. This dissolution time is important for the performance of the final medicine. In sustained release tablets (e.g. once a day only) the time to dissolve the tablet is controlled by the formulation and the particle size of the API. By milling the particles to a defined very fine powder the influence of the particles can be predicted easier than in unmilled or coarse material. Some APIs are badly soluble so that they cannot be released within the intended timeframe when the medicine should be effective and can be absorbed by our body. Ultra-fine milling – micronization – improves the solubility so that even low soluble API's become available to be an effective drug for the benefit of the patients.

#### What is the micronization technology for Siegfried?

The micronization technology is important for Siegfried's strategy to be a world class supplier for pharmaceuticals and a reliable partner for our customers. We regard micronization technology not only as a key step of our supply chain, but also as a "bridging" technology between drug substance and final drug product services. Conclusively it is

important for us to hold the knowledge and the technical capabilities of this key unit operation. This ensures that we can help our partners in the development of a new drug formulation as well as to ensure that the final product can be manufactured and delivered in the quality and reliability our customers expect from us.

\* 1000  $\mu m = 1$  mm

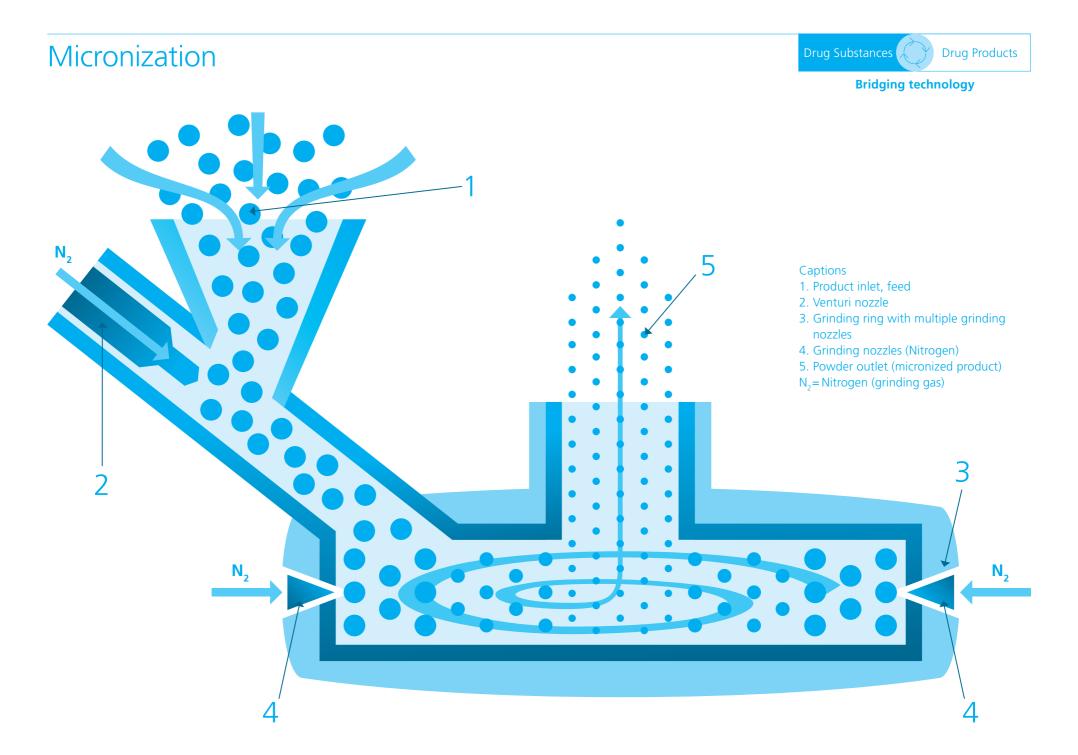
#### Michael Levis, Ph. D.

Head Process Technologies Principal Scientist Particle Technologies

will present the following topic at the Pharma Lecture Theater at the Chemspec Show in Basel on 26 June 2019:

#### Particle Properties and Particle Design and from an API supplier's view.

The interaction of API CDMO and formulation SMEs to meet customer expectations.



#### A Learning Organization

In the coming years, Siegfried aims to advance to the top of the CDMO<sup>1</sup> industry. Market perspectives and the strategic course are promising. For ambitions to become reality, it takes people that make a difference and are willing to shape the company's culture.

Siegfried's guiding motto is "expect more". It stands for a corporate culture that is geared toward top performance and expects its employees to never be satisfied with what they have achieved. Wolfgang Wienand, Siegfried's CEO since the beginning of 2019, has a very clear idea in this regard: "We aim to crack the really tough nuts, to always give our best and focus on solutions. If we want to reach the top, all of us – employees and management – must be willing to go the extra mile. While we are making good progress, we haven't reached our goal by far." As a learning organization we are in a continuous improvement process and master key capabilities: individual self-development, self-criticism, a shared vision, learning in a team and thinking in terms of systems. Some of these skills are clearly recognizable in our corporate culture, the Siegfried Way. Bringing it to fruition will be one of the most important management tasks in the coming years.

#### **Unity in Diversity**

Arnoud Middel, Global Head Human Resources, considers that "attributes unique to Siegfried worldwide are its entrepreneurial spirit and the willingness to choose unconventional, innovative routes". This drive and the connected courage have characterized Siegfried's 140 years of history until this day. In recent years, thanks to this drive, Siegfried has developed into a global organization with different cultures under the same roof. They need connecting values and attitudes because people can deliver top performance only if the meet on the basis of a shared set of values. Siegfried considers this to be an important prerequisite for the creation of performance-

oriented global teams. At the same time we are aware that we need to nourish a cultural microcosm. We aim to integrate this diversity into our system with an effect that will add value. It conceals a creative power that characterizes all excellent teams. Arnoud Middel is confident concerning the future path: "It takes a lot of sure instinct and mutual respect in order for this to succeed, especially on the side of executive leadership. Naturally, the balancing act between unity and diversity, the actual core of the "Siegfried Way", does not always succeed, but it remains a constant issue in management at all levels, and we continue to learn."

#### **Constant Change as an Opportunity**

The task of Siegfried's human resources strategy is to effectively provide effective support for the growth strategy and thus the ongoing transformation of the company. We aim to achieve this by means of excellently trained employees and managers, attractive workplaces and an organization that is nimble and oriented toward change. By means of numerous projects in the field of business excellence, we invest in above-

average team performance and, consequently, in the highest level of innovation and quality. In 2018, we invested 1.4 million CHF in training and the continued education of our more than 2300 employees worldwide. To implement our goal of advancing to the top of the CDMO industry, it is our ambition to harmonize Siegfried's corporate and management culture and our capability management with the high demands made by our customers and technological progress.

#### **Targeted Selection and Development of Employees**

The company's distinct growth and its rapid change offer a wide range of opportunities for our employees to take on new tasks and thereby pursue personal development. We consider this to be an important element of the learning process. "Our experience shows that learning on the job in combination with targeted continued education advances our teams most efficiently", says Arnoud Middel. Structured development meetings and continuous feedback within the parameters of management activity represent a significant complementary element.

We aim to communicate these views and measures in talent groups which we define in order to strengthen our "Employer Branding". This helps us to attract suitable employees, both professionally and culturally, and we thereby lay the foundations for effective later development. This proceeds in accordance with group-wide standards on the basis of which we train and instruct local human resources managers.

#### **In Constant Dialogue**

At Siegfried, traditional hierarchical leadership models are increasingly losing relevance. They are replaced by team learning and thinking in terms of systems, in the way that learning organizations do. Our integrated business model calls for interdisciplinary teams that find and implement solutions jointly and on an equal footing. Increasingly, our core competencies are considered to be: cooperation, co-creation and the ability to respond and react to each other, to illuminate challenges from different perspectives and to conduct a solution-oriented dialogue. Arnoud Middel believes: "All of that is connected to the self-development which we expect our employees to undergo. Yet, it also challenges management employees whose role is changing rapidly and whom we prepare specifically for the new challenges." In 2019, Siegfried will fundamentally redesign its management training. Agility and innovation are constant companions, not only in our core business, but also in the field of Human Resources.

"Constant transformation and change have been characteristic drivers in Siegfried's history and are a part of our culture."

Arnoud Middel, Global Head Human Resources

HR Strategy as one of the main drivers of Company Growth and Strategy Execution

Grow Company right people, right job, right skills managed by great leaders

Skilled People Strong Great Workplace Organization

Strong Foundation

<sup>&</sup>lt;sup>1</sup> Custom Development and Manufacturing Organization

#### 3 Questions to

Arnoud Middel



#### How can corporate culture be lived day-to-day in a company that is in constant transformation?

Constant transformation and change have been characteristic drivers in Siegfried's history and are a part of our culture. In recent years, very structured and rigorously conducted integration and harmonization processes have dominated and pushed this element of culture somewhat into the background. However, feedback received from employees at all levels tells us that it is alive and very strongly embedded. They would like to be more actively involved, heard more clearly, and allowed to present their thoughts on matters. Following the intensive phase of acquisitions and integration we will pay more attention to this aspect.

#### How will internal stakeholder dialogue be shaped in the future?

I am convinced that classical hierarchical relationships and organizational structures will continue to lose relevance. Instead, we will increasingly work in mixed, cross-functional teams that find and implement jointly developed solutions at eye level. Cooperation and co-creation as well as the capacity to listen and engage in solution-oriented dialogue will become core competencies. They will characterize personal internal exchange and relationships with customers.

#### From an HR point of view, what was the biggest highlight in 2018?

The entire year was very intensive and provided a great number of exciting challenges. We analyzed in depth the results of our employee survey and drew conclusions for the future. I was particularly impressed by the large number of personal comments made. They contained much that is positive and included valuable suggestions for continued improvement. This kind of energy and readiness to address critical aspects turned out to be a real highlight for me.

### Brand Management Creates Identification and Strengthens Trust

Siegfried has invested in its brand and cultivated active stakeholder dialogue for years. We are convinced that this contributes toward a shared Siegfried identity at all of our sites and provides our customers with a measurable promise, namely to expect more from us.

Strong brands are consistent, relevant and differentiating. The aim of our brand management is to reach uniform awareness of the Siegfried brand worldwide among relevant internal and external stakeholders and to continually cultivate stakeholders. Thereby, out communication gives orientation, and it stabilizes the trust in our company. We attribute special importance to a shared corporate and leadership culture serving as a link that connects all business units.

Our brand promise "expect more" conveys our aim to surpass the expectations of all our important stakeholders – both internally and externally.

In recent years, Siegfried has grown vigorously, organically and by means of acquisitions, and we will keep moving in the future. In our dynamic environment, a strong brand that is committed to a clear performance proposition is of vital importance. Siegfried has for many years pursued a single-brand strategy, and the company deliberately avoids sub-brands. For us as suppliers to the life-science industry, it is decisive that our brand promise includes an emotional benefit for the customer, in addition to the functional.

From a purely rational point of view, we are a supplier to the pharmaceutical industry, and our customers evaluate us mainly by means of measurable criteria. However, this does not reach far enough in terms of characterizing our identity. As an organization working in the field of life science, we feel especially committed to people and their health. We expect from all our employees that they live up to this commitment credibly in their everyday lives — internally as a

part of the Siegfried family, and externally toward customers, suppliers, neighbors and other stakeholders.

#### Value-based dialogue with our stakeholders

Siegfried continues to entrench its corporate values in a systematic and targeted way in all parts of its organization, especially, following the acquisition between 2012 and 2015 (see Siegfried's Leadership Model, page 41). For our employees to deliver the required high performance, they have to form a global team with a shared understanding based on values. We work on this in annually recurring internal workshops at all sites and at all levels.

We make use of a stakeholder map (see page 42) in order to create a targeted and systematic dialogue with our stakeholders. The groups of persons included in this map are by no means final. We have determined them on the basis of their relevance to and their potential influence on our company. Moreover, based on regular stakeholder mapping, we can recognize attitudes and interests in order to adapt topics, messages and communication platforms accordingly.

We introduced new means of communications and optimized existing ones for various stakeholder groups. In 2016, we completely revised our website and, in addition to content, we updated its design and functionality so that its structure now meets established browsing habits. Thanks to its responsive design, the site automatically adapts to any screen size, clearly increasing user friendliness. Furthermore, we have strengthened our social media pres-

ence several platforms. We use them to target professional and leadership staff and to present current information and impressions.

In the summer of 2017, we introduced our new Intranet to strengthen internal communication; it has clearly increased the efficiency of our teams and the sense of community around the globe. The Intranet project had the goal of designing a user-friendly, optically appealing instrument that does justice both to our global and the individual local demands of the sites.

Not all of our 2364 employees world-wide work at a screen every day. That is why we continue to invest in a paper-based employee publication "Insight" appearing four times a year in English and German and also in French for our sites in Evionnaz and St. Vulbas. The contents concern the entire Siegfried Group while individual sites report on local news.

See Siegfried's Leadership Model in the Sustainability Report on page 41.

Brand image around 1879

1940

1955

1973

since 2001

B. SIEGFRIED





1948







We would be pleased to hear from you.



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# Five good reasons that speak for Siegfried

#### **Leading Worldwide Life-science Company**

In cooperation with our customers from the pharmaceutical industry we develop and produce drug substances, intermediates and finished dosage forms from a single source. Our core competence is integrating complementary chemical and pharmaceutical capabilities in a single consistent business model.

We consistently aligned Siegfried to position it as a CDMO (Custom Development and Manufacturing Organization) and, thanks to acquisitions and targeted organic growth, we achieved a leading worldwide position.

Our network of development and production sites comprises nine sites in Europe, North America and Asia. This integrated platform provides individual solutions for customers of all sizes and for any requirement while maintaining a high degree of flexibility, quality, supply reliability and efficiency during patent protection and thereafter.

#### Strong in Growth, Value-oriented, Reliable

For years, Siegfried has achieved robust and distinctive growth. Since 2013, sales grew organically and by means of acquisitions from CHF 374.9 million to CHF 794.3 million in 2018. This corresponds to average annual growth (CAGR¹) of 16.2 percent.

Our growth platform comprises a broadly diversified customer portfolio on all continents. The ten largest customers represent less than 40 percent and the ten largest products less than 30 percent of sales. The spectrum ranges from large pharmaceutical companies to small bio-pharmaceutical companies focusing on drug substances and drug product research and marketing.

End 2018, Siegfried's market value amounted to 1383 million Swiss francs. Since 2010 – the launch of the "Transform" strategy – the market value grew by 302 percent. The very robust balance sheet with an equity rate of 61.5 percent and an excellent Net Debt-to-EBITDA ratio of 0.62 ensure security and a strong capital base as well as agility in a rapidly consolidating market.

#### **Strong in Processes and Innovation Thanks to High Quality of the Teams**

As a leading supplier we build on technological innovation and each year invest extensively in research & development. In 2018, R&D expenses amounted to 27.5 million francs or 3.5 percent of sales. Own innovations increase the quality of integrated development and production processes.

Each year, we invest a considerable sum in training our more than 2300 highly qualified and skilled employees worldwide. Siegfried's corporate values and management principles with company-wide validity unify all employees to form a global team. They represent the basis for our corporate promise "expect more".

#### Perspectives in a Dynamic and **Forward-looking Market**

The health market – specifically the drug market – enjoys outstanding growth and earnings perspectives. Drugs play a crucial role for people to attain an increasingly high age at a good quality of life, and Siegfried as a supplier to pharmaceutical companies operates in the midst of this attractive market.

The outsourcing market is growing because the development of drugs is connected with increasingly large risks. Consequently, the pharmaceutical industry relies ket we shall continue to play an active role.

#### **Convincing Yield for Shareholders**

Between end 2013 and end 2018, Siegfried's registered share grew by 107.9 percent, clearly above the rate of the relevant Swiss Performance Index (SPI), which grew by 25.4 percent. Total Shareholder Return<sup>3</sup> between end 2013 and end 2018 amounted to 114.2 percent. With a weighting of 70 percent, the ratio bears influence on the long-term remuneration component of Siegfried's management<sup>4</sup>, thus aligning the interests of shareholders with those of management.

Siegfried aims to strike a balance between attractive, predictable profit distribution and available means for the efficient implementation of strategy. Dividends are paid out from operating cash flow.

<sup>1</sup> Compound Annual Growth Rate <sup>2</sup> The net debt to EBITDA ratio gives an indication as to how long a company would need to operate at its current level to pay off all its debt. <sup>3</sup> Total Shareholder Return is a measure of the

performance of different companies' stocks and

<sup>4</sup> Long-Term Incentive Plan (LTIP)

on reliable, strong partners such as Siegfried to minimize risks. The CDMO market is heavily fragmented and undergoing an ongoing process of consolidation. In this mar-

4 Questions to

**Dr. Reto Suter** 

#### Where in the near future do you intend to invest the means generated from the strong cash flow?

Siegfried pursues a growth strategy. The strong operating cash flow is used mainly to finance this growth. Cash and cash equivalents can moreover be used to reduce loans and borrowings or redeem hybrid bonds. This in turn increases our debt capacity to finance our growth.

#### In the coming years, where do you recognize the main market risks and how do you prepare to meet them?

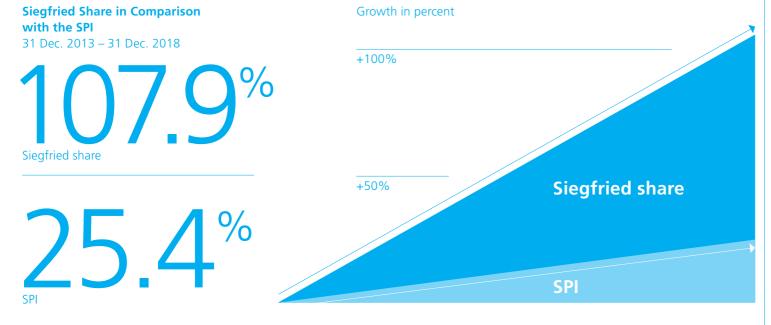
We recognize market risks in two areas: On the one hand, as an internationally operating company we are exposed to currency risks which we meet by striving to balance earnings and expenses in the various currencies (natural hedging). On the other hand, we purchase raw material required for drug substance production in the market at prices exposed to market influences. In this regard we benefit from a central strategic procurement function established several years ago. This helps us today to manage and minimize these risks.

#### What is the ideal balance-sheet structure for Siegfried, and what is the situation today?

Across time, the strong operating cash flow will further improve the very stable financing structure in place today. Our emphasis is on conservative financing. In case of an acquisition this gives us the necessary flexibility.

#### What may shareholders expect from dividend policy in the future?

Siegfried's shareholders may expect constant, slightly growing dividend payments.



**Total Shareholder Return** 

31 Dec. 2013 – 31 Dec. 2018

**Average Annual Growth (CAGR)** 31 Dec. 2013 – 31 Dec. 2018

14.2% 16.2% 61.5%

**Equity Rate** 31 Dec. 2018