

April 2018

**Specialised in Growth****Dear Reader,**

photo: schreier.co

The hospitals of the future are a hot topic of particular interest to those of us in the healthcare industry. Schmid & Wolff Management Consultants conducted a survey of hospital doctors pertaining

to their level of satisfaction, confounding factors and their perspectives on the future of hospitals. Find out more about the most important findings in the interview with the publisher of the study, Reinald Wolff.

The managing directors of our portfolio company medigroba, a homecare provider that offers assistance and care products, also provide insight here into the company, its services, its market development and its corporate strategy. This newsletter includes updates on AMW, EIT, TRI Dental Implants and numares.

And: We are currently raising capital for our fifth fund generation at SHS. Find out more about the companies we are investing in with our new fund. [Frankfurter Allgemeine Zeitung](#) also reported on this.

I hope you enjoy reading!

Hubertus Leonhardt

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Which hospitals have a future?

Reinald Wolff in conversation with Dr. Bernhard Schirmers



Dr. Bernhard Schirmers of SHS in conversation with Reinald Wolff (right)

40 percent of the doctors who work in hospitals are either somewhat or entirely dissatisfied with their work. Why is that? In its study "Zukunft Krankenhaus" (Future Hospital), Schmid & Wolff Management Consultants surveyed approximately 50 hospital doctors of various disciplines at the end of 2017 on three topics: processes and working together, job satisfaction and the quality of further training, as well as the hospital of the future. SHS founder Dr. Bernhard Schirmers spoke with Managing Director of Schmid & Wolff Management Consultants, Reinald Wolff, about the results of the survey.

Dr. Bernhard Schirmers (BS): *There is often an air of alarm in Germany when speaking of hospitals. Many people are decrying a healthcare crisis and complaining that there is not enough money for infrastructure or innovation. What do hospital doctors think in this regard?*

Reinald Wolff (RW): Doctors who work in hospitals every day have a different perspective. They see their patients, their work and the organizational framework. As such, they experience the healthcare crisis in a more differentiated way. Some see the wards as being understaffed, others speak of idle time, and some perceive qualification of personnel as insufficient. What the respondents have noticed is that, despite economic pressure, materials are being handled too generously, for example. Two-thirds of the respondents believe that their clinic is not operating efficiently. The consequences of this include unnecessarily long waiting times for patients. 70 percent of the respondents indicated this. On the whole, the topic of economic efficiency at the working level does not seem to be very transparent. How is it measured in the daily processes? What can be improved? Assistant physicians are particularly keen on getting the support they need in their training. Unfortunately, this seems to be lacking quite often. This is most likely one of the reasons for the mixed reviews with regard to job satisfaction.

BS: *Hospitals are regarded as quite conservative structurally. How are hospital doctors managing the balancing act between quality treatment, time pressure and insufficient processes? What has to improve?*

RW: Doctors want to have time for their patients and provide good medical treatment. This is impeded by complex IT programs used to fill out reports, for example. It also costs time if processes don't run smoothly or if teamwork is tedious. This applies to the cooperation with other disciplines or departments, but especially to the parallel hierarchies of physicians and nursing staff. For example, respondents lamented a "lack of understanding for the work of the other team in each case" as well as "working alongside one another rather than with one another" in their daily work. I think many hospitals need a new operating model. There is much talk of patient-oriented processes. But it is only gradually being realized that this is not simply a technocratic measure. It requires other task interfaces and structures, overarching responsibility or something like "leaders who serve". A lot could be learned from the industrial sector in this regard.

BS: *"Hospitals of the future" are a hot topic. What do the survey respondents see as being most important in this regard?*

RW: The future bears both opportunities and risks in this area. Hospitals will continue to depend heavily on their staff and the quality of working together. However, we will see a transition from static entities toward more of a healthcare network. The respondents indicated working together across disciplines including cooperation with self-employed doctors to be very important. The digitalization of processes using an electronic health record, for example, seems to be an almost mandatory prerequisite for this. There is a fear, however, that the advancement of digitalization will leave little time for personal talks with patients. Another risk is that high-tech medicine could lead to a loss of competence among physicians when it comes to their ability to perform examinations or diagnoses. This could have a similar effect to

navigation systems in cars, which can cause our own sense of direction to wither away. In general, however, hopes are high that the hospitals of the future will help overcome the current deficits experienced with regard to organization and daily work routines.

BS: What innovative business models might the results of your study indicate?

RW: The key lies in networking medical service providers across disciplines. Synergy effects can be achieved by combining new medical procedures, physician expertise and telemedicine for patients. This is both a technical issue involving electronic files, data security and IT platforms, as well as a cultural and organizational challenge. The established players including hospitals, associations of statutory health insurance physicians, and insurance companies still seem to be very intent on defending their traditional roles and portion of the budget. Functioning partnerships between technology providers, forward-thinking insurers and consenting patients could provide a lot of space for new entrepreneurial solutions.

Author:

Reinald Wolff, Geschäftsführer Schmid & Wolff, Management Consultants, Herrenberg

Link to the study

http://krankenhaus-consult.de/wp-content/uploads/2018/01/Studie_Zukunft-Krankenhaus-2017.pdf

PORTFOLIO COMPANIES NEWS

AMW received regulatory approval for prostate cancer drug



SHS portfolio company AMW has now received regulatory approval for a leuprorelin implant in Germany. The implant, which is administered via a syringe, releases an active substance for 3 months that suppresses hormones required for tumour growth. AMW is a specialty pharmaceutical company focusing on hard to do drug delivery systems. The leuprorelin implant is now the second AMW drug for patients with prostate cancer.

The leuprorelin implant is administered via syringe.

KEY FACTS

Year established: 2008

Business purpose: Development, production and marketing / out-licensing of speciality pharmaceuticals

Products: Transdermal systems (drug patches) and active implants for medical applications in oncology, neurology, psychiatry and endocrinology

Location: Warngau (D)

EIT Emerging Implant Technology announces first FDA multi-level approval for their 3D printed cervical cage

Emerging Implant Technologies GmbH (EIT), a German medical device manufacturer exclusively focused on creating innovative 3D printed titanium implants for spinal applications today announced the U.S. Food and Drug Administration (FDA) clearance for extension of the label of its EIT Cellular Titanium® Cervical Cage to be used in multiple contiguous cervical levels (C2 to T1).

This marks the first multi-level 3D printed cervical cage to enter the US market. The EIT cervical cage is to be used with supplemental fixation and designed to facilitate fusion. The company plans to complete its current product portfolio with a lateral lumbar cage in Q2 and a fully printed lateral expanding cage in Q4. For more information about the EIT 3D platform, visit www.eit-spine.de



The 3D printed cervical cage of EIT

KEY FACTS

Year established: 2014

Business purpose: Development and marketing of 3D-printed fusion implants and instruments for spinal surgery applications. External implant production based on selective laser melting (SLM 3D printing) and regional distribution cooperations

Products: Cervical cage, lumbar cages as well as an innovation portfolio comprising minimal-invasive access, customizability and other spine innovation projects

Location: Wurmlingen (2016, D), established in Tuttlingen

medigroba: "helping with heart and expertise!"

Interview with medigroba GmbH's managing directors, Frank Franzen and Bodo Weinitschke.



Bodo Weinitschke (left) and Frank Franzen (right), medigroba's managing partners

SHS: *Mr. Franzen, you have been managing director of medigroba GmbH in Balingen for a little over a year now. What does medigroba provide and how has your first year as managing director been?*

Frank Franzen: medigroba is a homecare provider. That is to say, we offer medical equipment, assistive devices and care products to patients who are cared for at home or in comparable facilities. medigroba has been on the market since 1975 and is continuing its steady growth. Especially this past year, we managed to accelerate our growth considerably. After our successful transition to new ownership, we continued to profit from the fact that the previous owners remained firmly committed to the company.

SHS: *Mr. Weinitschke, how would you assess the market that medigroba is active in?*

Bodo Weinitschke: Based on Germany's demographics and the advancements in medicine, we expect above-average growth in this market to continue. Approximately six million people are currently being provided with assistive and care products with a rising tendency. A growing number of people can now continue their medical treatment at home following a brief hospital stay.

SHS: *The homecare market in Germany appears to be highly fragmented. What do you think of this?*

Frank Franzen: We share this assessment. Of approximately 1,200 homecare providers in Germany, only a few have more than 50 million euro in turnover and cover the entire market as well as all indications. Most companies have a regional focus or specialize in specific areas of treatment.

SHS: *What is your strategy with regard to the further development of medigroba?*

Bodo Weinitschke: On the one hand, we want to grow organically, which involves opening branches in strategically important areas in Germany. We already opened our first branch in the Rhineland region last year. On the other hand, we plan to generate growth through acquisitions. We are currently speaking with several homecare providers that we

think would best fit our profile. We think a certain scale will be necessary in the future to withstand the cost pressure in the healthcare system. We are open for all inquiries in this regard.

SHS: Thank you for your time!

KEY FACTS

Year established: 1975

Business purpose: Care of patients in hospitals, care facilities and practices with assistive and care products

Products: medical devices (home ventilator, inhalation, drainage, oxygen supply), tracheostoma, wound and ostomy care, enteral nutrition (liquid and enteral feeding), parenteral nutrition and pain therapy, kids care (children's intensive care), incontinence care/care products

Location: Balingen (D)

Multiple sclerosis: how NMR and machine learning can improve diagnostics

According to recent research results, multiple sclerosis patients can be divided into different disease phases using metabolic biomarkers measured using NMR. This could serve to make diagnosis and treatment of the disease much more specific. Our portfolio company numares is currently developing an IVD test. Artificial intelligence and machine learning are helping the developers manage the great complexity of this task.

[Find out more in the Laborpraxis article.](#)



numares AXINON® lipoFIT® test system

KEY FACTS

Year established: 2004

Business purpose: Development and marketing of new analytic and diagnostic tests based on nuclear magnetic resonance (NMR) spectroscopy and specific evaluation algorithms

Products: Diagnostic tests for detection of diseases (oncology, cardiovascular diseases, nephrology and neurology)

Location: Regensburg, Richmond, Boston and Singapore

TRI® strengthens its product portfolio in the field of "Digital Workflows"



The SHS portfolio company TRI®, a Swiss dental implant provider, has expanded its product portfolio in the field of "Digital Workflows". This marks a further step in the company's continued effort to help dentists offer their patients high quality dentistry.

TRI® is defining new standards with TRI®+ Digital Solutions as a universal implant interface to leading technology partners in digital implantology. Together with a streamlined implant system, TRI®+ Digital Solutions enables unlimited treatment options from simple to complex including 3D planning or guided surgery, for

TRI®+ Digital Solutions

example. TRI® 2in1 Impression Abutment, on the other hand, is a patented tool-free handling concept, which provides an innovative way to take dental impressions quickly and safely.

The new products are both intended to make the treatment process as easy and efficient as possible for dentists. SHS has held shares in TRI Dental Implants since 2014.

KEY FACTS

Year established: 2010

Business purpose: development, production and commercialization of implants and implant related products for the dental market

Products: product lines TRI Vent/TRI Narrow/TRI Octa, TRI prosthetic portfolio (notably abutments), TRI surgery KIT, TRI@+ Digital Solutions

Location: Baar (CH)

INSIDE SHS

SHS starts raising capital for new fund



SHS Gesellschaft für Beteiligungsmanagement has started raising capital for its fifth fund. The fund will invest in companies focusing on the global markets for medical technology and diagnostics. Founded in 1993, SHS is based in Tübingen, Germany and is considered to be one of Europe's leading sector-specific investors. With a planned volume of 150 million euro, the new fund targets an increase of 25 million euro compared to the previous fund. The fund's targeted investments should have strong management teams as well as innovative products or business models.

Their offer should cover yet unmet medical needs and thus have strong national and international growth potential. SHS invests in companies with marketable products that target growth or plan to permeate new markets. SHS supports its portfolio companies not only through its many years of experience and market knowledge, but also with its extensive network of contacts and partnerships.

An investment in the new SHS fund offers investors the opportunity to take advantage of opportunities in the world's growing healthcare market and to benefit from the SHS team's industry know-how. With its many years of experience in the healthcare sector, SHS has developed a proprietary deal flow and close relationships with medical technology companies, insurers and physicians.

Challenges facing the medical technology industry

Together with MBG Baden-Württemberg and Medical Mountains, SHS organized an event on February 27, 2018 for interested guests from Tuttlingen and the surrounding area to discuss current challenges and trends in the medical technology industry. Over 40 guests attended the evening event at Hofgut Hohenkarpfen in Hausen ob Verena.

Among other topics, the presentations focused on growth financing and succession solutions. The managing director of medigroba, Frank Franzen, interviewed the company's former owner, Stefan Allgayer, with regard to the various issues of the his company's succession situation, which were solved together with SHS. Reinhilde Spatscheck, founder and managing director of SHS, discussed ways to meet increasing regulatory requirements in medical technology in the future. At a



Speakers and organizers at the event in Hausen ob Verena

subsequent get-together, the guests had the opportunity to gain further insight into the current challenges facing the industry.

CAREER

Jobs at SHS portfolio companies

Project Manager (m/f) Research and Development (Enzyme Development)

c-LEcta is a leading industrial biotechnology company specializing in the development and use of enzymes and microorganisms for the production of high-quality biotechnological products. The Enzyme Development department is part of the Research & Development division. Enzymes are identified for industrial applications, optimized with methods of enzyme engineering and their suitability for application is investigated. [Find out more >>](#)

International Manager (m/f): Regulatory Affairs & Quality Management

TRI® Dental Implants Int. AG is a fast-growing global provider of dental implant solutions based in Switzerland. Designed and manufactured in Switzerland, TRI® offers high quality, innovative and easy-to-use implant solutions for the benefit of patients worldwide. If you are keen to join a dynamic and fast-growing company in the medical device industry, we look forward to your application. [Find out more >>](#)

License Manager Pharmaceuticals (m/f)

AMW GmbH is an innovative and fast-growing specialty pharmaceuticals company headquartered near Munich. To successfully market its products pending approval to an international audience, AMW is currently looking for a qualified License Manager. You can look forward to taking on a variety of challenging tasks with a high level of personal responsibility as well as attractive compensation and profit-sharing. [Find out more >>](#)

Director QM/RA (m/f) (QMB) / Head of QM/RA (m/f)

Spiegelberg GmbH & Co. KG was established in Hamburg in 1986. Today the company manufactures and markets innovative neurosurgical products for customers in over 40 countries. Our slogan "Technology for brains" stands for truly pioneering work. If you share our passion and enthusiasm for medical technology, we would be pleased to welcome you as part of our team. [Find out more >>](#)

Vice President of Marketing & Sales US (m/f)

Company is a dynamic, fast growing company that enables break-through diagnostic tests. Among Company's customers are leading clinical laboratories in the United States. To better serve those customers and expand the business in the United States, Company is looking for a VP Sales & Marketing of Company's US affiliate located in Boston who should later serve as President of the US affiliate. [Find out more >>](#)

Senior Supply Chain Manager (w/f)

The innovative Swiss manufacturer of pulmonary diagnostics technologies is seeking to strengthen its supply chain team in Zurich with a motivated and independent personality to fill the position of Senior Supply Chain Manager. [Find out more >>](#)

CFO (m/f) member of the management board

Your area of responsibility will include monitoring of growth, internal and external accounting, controlling, taxes and legal issues. You will co-ordinate contact with investors, banks and auditors. You will also support the company in negotiating strategic business agreements. [Find out more >>](#)

CEO (m/f) Focus: research and development, clinical affairs and/or regulatory in medical technology

Do you have experience as a managing director or are you currently in the "second row" and want to make the next step. Experience with project management of product developments, clinical trials, and/or approvals in the cardiovascular environment are desired. You should speak fluent English. [Find out more >>](#)

Jobs at SHS

Managing Director / MBI candidate (m/f) for medical technology, succession solution

We are regularly seeking executives who would like to become entrepreneurs with us and drive the performance of companies. Together we develop a corporate vision and strategy, which you then put into action with our support. [Find out more >>](#)

Internships for students

Are you studying business, economics or engineering? We offer you the opportunity to apply your previously acquired knowledge as part of an experienced team of SHS professionals. You will benefit from a project-oriented, flexible working atmosphere, a flat hierarchy and diverse employment opportunities offered by SHS throughout the entire investment activity cycle. [Find out more >>](#)

Master's thesis at SHS

Are you writing your master's thesis in business, economics or engineering? We offer you the opportunity to write it as part of a six-month internship with our company. We would be happy to help you define a current topic in the area of venture capital / private equity. Contact us. [Find out more >>](#)

PRESS REVIEW

Selected press starting January 2018

A selection of relevant articles about us and our portfolio companies:

Frankfurter Allgemeine Zeitung, March 19, 2018: "Neuer Fonds für Medizintechnik" (New Fund for Medical Technology)

SHS Gesellschaft für Beteiligungsmanagement is currently preparing the launch of its fifth fund. For the first time, the medtech investor will be investing in companies from Scandinavia and the Benelux region. [Read more >>](#)

MedTech Strategist, March 27, 2018: „NUMARES HEALTH: Using Physics and Algorithms to Transform Clinical Diagnostics”

The article portrays the SHS portfolio company numares and provides insights into the company's development and product portfolio. numares develops and markets diagnostic test systems using magnetic resonance spectroscopy, machine learning and artificial intelligence. [Read more >>](#)

Südfinder, March 7, 2018, page 6: "Herausforderung China" (The China Challenge)

The medical technology sector in Baden-Württemberg is booming and at the same time faces major challenges. SHS hosted an industry event in Hausen ob Verena near Tuttlingen. Among other things, discussion focused on approaches to securing the future of the medical technology sector in Southwestern Germany. [Read more >>](#)

Münchener Merkur, January 26th 2018: "Millionen für das Wachstum" (Millions for Growth)

The SHS portfolio company AMW is granted a loan of 25 million euros. This injection of funds serves to secure funding of a new building at the production site in Warngau. However, AMW will be investing the lion's share in further development of its bio-degradable drug implants and transdermal systems, as well as in clinical trials. [Read more >>](#)

medtechZwo, January 5, 2018: "SHS stärkt Netzwerkaktivitäten in den USA" (SHS strengthens networking activities in the USA)

Presence in the US market is an important prerequisite for the success of medical technology companies. André Zimmermann, partner at SHS, has taken over the responsibility for international business development for the US healthcare market. [Read more >>](#)

Investitionsfokus

Sector:	life sciences (medical technology, diagnostics, applied technologies, industrial biotechnology/pharmaceutical industry; no drug development)
Geographical Focus:	Germany, Austria, Switzerland
Reasons for investment:	growth capital, strengthening equity, MBO/MBI, change of shareholders/succession, M&A financing, spin-off
Company situation:	growth/expansion, succession/company sale, internationalization; operating profit may be negative for growth, or for technology-related reasons
Transaction value and Investment size:	transaction value: up to € 100 mn; investment amount SHS IV: € 2-20 mn, with a co-investor from the SHS-network up to € 50 mn
Investment types:	majorities or minorities, equity & financial instruments similar to equity