

January 2017

**Specialised in Growth**

Ladies and gentlemen,



2016 was successful and exciting for us at SHS. We continued to expand our portfolio of healthcare companies and successfully completed three acquisitions. Two transactions particularly aroused interest and caused many reactions. Our new investment EIT in Tuttlingen, Germany, produces spinal implants using 3-D printing. EIT serves as an excellent example for a major technological change in the medical technology industry. And our investment in the homecare provider medigroba documents the active consolidation taking place in this segment.

As an industry investor, we have been investing in medical technology and life sciences companies since 1993. The framework conditions affecting the companies in our portfolio are important to us and this year's elections in Germany will be particularly interesting for the healthcare sector. We have therefore already asked the political parties to explain their positions on the topics of innovation financing, free trade and medical technology. The issue of free trade is gaining relevance especially in light of the recent inauguration of a new administration in the USA. That's why we're starting this newsletter with the positions of the political parties on this subject.

I hope you enjoy reading and look forward to your feedback.

Hubertus Leonhardt

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ARTICLES

The 2017 SHS medical technology and VC election check, part I: German political parties' statements on free trade



The next parliamentary election will be indicative of Germany's innovation capabilities. Expectations were already raised once during the election campaign of 2013, that the new government would attend to the problems of young companies and investors with a new venture capital law. Unfortunately, only various minor improvements were implemented. But when it comes to securing the innovation capacity of Germany, it is important that political entities contribute to creating an innovation-friendly environment.

Trade agreements play a central role in this regard. They have to ensure high safety standards, while at the same time not unnecessarily restricting trade. For our current newsletter, we therefore asked the political parties about TTIP and the topic of free trade agreements in general. The responses presented here indicate the current opinions of the parties and will not necessarily become part of the election programs in this form, as these will only be finalized several months from now. We asked all the parties that have been represented in parliament for the past two terms.

SHS Gesellschaft für Beteiligungsmanagement:

Although we don't consider it extensive enough, TTIP should remove barriers to market access for many areas of the economy. How do you intend to lower trade barriers to secure Germany's future as medical technology center?

CHRISTIAN DEMOCRATIC UNION (CDU):

Intense and fair trade relations are an important element of growth and prosperity perspectives, especially in Germany as an exporting country. Therefore our goal with TTIP was and remains the establishment of a shared market with the USA. The advantage of this would consist of the fact that we could continue to have the economic strength and political leverage to maintain and globally strengthen European labor market and social standards. We are counting on the USA to continue to see the importance of TTIP and engage in further negotiations in 2017. One thing is clear: there will only be a free trade agreement with the USA if the USA wants it, too. We will continue to work toward a trade agreement.

THE GREEN PARTY (DIE GRÜNEN):

We are for restarting the TTIP negotiations and a stronger alignment of European trade policy with the World Trade Organization WTO. We welcome tariff dismantling. Regulatory cooperation should primarily serve the development of high common standards, not the removal of non-tariff barriers to trade.

THE LEFT PARTY (DIE LINKE):

In our opinion, there is no question as to the future viability of Germany as a medical technology center. After the USA, Germany and Japan are the largest markets for medical technology in the world. Within the European Union, the German medical technology companies hold the largest market share by far. On October 6th, 2016, the German Medical Technology Association very convincingly reported on the positive status and future of this sector in its 2016 industry report. Dismantling trade barriers without TTIP can't be an end in itself and definitely can't be agreed on to the expense of the prosperity and health of the population.

FREE DEMOCRATIC PARTY (FDP):

We are clearly in favor of free trade. Ultimately, it ensures progress, jobs and growth, while also promoting an exchange between cultures and establishing peace. We therefore seek to promote free trade around the world, lower trade barriers of all kinds, and facilitate the return to a generally accepted global trading system within the framework of the World Trade Organization.

We welcome the CETA free-trade agreement between Canada and the European Union. In the rules for a new and improved investment jurisdiction, we see an opportunity to define global standards for modern and balanced investment protection. Further trade and investment agreements will also provide a chance to revive the European economy. Emphasis in this regard is on negotiations with the United States, Japan, China and the ASEAN countries. Although agreement on TTIP in the near future has become less likely following the presidential elections in the United States, we want to keep negotiating on it. In doing so, it is important to us that the needs of small and medium-sized enterprises (SMEs) are appropriately taken into account by dismantling bureaucratic hurdles in customs clearance, sensible harmonization of standards, mutual recognition of certifications, tailor-made support in meeting regulatory requirements, and a central point of contact ("one-stop-shop") for European SMEs.

SOCIAL DEMOCRATIC PARTY (SPD)

The SPD is committed to fair trade. Trade policy is not just an instrument of economic development. It is basically about the issue of which rules we want to live by in a globalized world. It is not easy task to achieve progress for fair world trade and more prosperity for everyone. National unilateralism and protectionism do not promise success. International cooperation is indispensable. Precisely because the stakes are high, Europe cannot afford to stand on the sidelines while the standards and rules of the future are being negotiated. The best framework for these negotiations is, without doubt, the World Trade Organization (WTO) due to its multilateral nature. However, it is currently in a state of gridlock and unable to act in many respects. We will make every effort together with our partners in Europe and around the world to overcome this gridlock. Given this gridlock, trade agreements between the EU and key partners have become an increasingly used alternative. Our goal consists of agreeing on rules for mandatory compliance with and implementation of human rights, environmental and social standards such as the ILO core labor standards with concrete complaint, review and sanction mechanisms in all trade, investment and economic partnership agreements. We intend to assert the primacy of politics and perspectively establish an independent international commercial tribunal. The negotiations with the United States on a transatlantic free trade and investment agreement (TTIP) have shown that entry into such an agreement with these terms is currently untenable. However, intensive negotiations with the new Canadian government have succeeded in reaching an agreement between the EU and Canada (CETA) with future-oriented rules for the protection of the rights of workers, the services of general economic interest and a progressive investment court. Private arbitration tribunals are thus excluded. This should also apply to all future EU trade agreements. As a mixed agreement, CETA has to be ratified both by the European parliament and by the national parliaments. In the course of this parliamentary examination, we will subject all aspects to due diligence.

PORTFOLIO COMPANIES NEWS

3-D printed spinal implants by EIT: closer and closer to nature

KEY FACTS

Year established: 2014

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

The 3-D cage pioneer and SHS investment EIT has been growing at an above-average pace since its launch in February 2014. EIT has already sold more than 5,000 so-called cages, which are implants for the reinforcement of vertebral bodies. The combination of a porous structure, a rough surface and biocompatible titanium, which can only be achieved using 3-D printing, improves the fusion results and reduces the number of complications without increasing costs. Sales have been positioned internationally from the outset, as EIT's Managing Director, Guntmar Eisen, and his Dutch co-founder, Hans Eekhof, are experienced experts in the field of implants. An excellent knowledge of the industry and an international network were compelling reasons for SHS to engage in a dynamic market environment with investment in EIT. In addition to expanding into other markets in Asia and the United States, the approval



of additional products is currently in planning.

Spinal implants made by EIT for vertebral fusion made of 3-D printed titanium

medigroba: well established homecare provider in a growing market

The homecare provider medigroba is situated in the German city of Balingen in Baden- Württemberg and is specialized in the care of patients with medical aid and care products in hospitals, nursing facilities and at home. It focuses on high-quality services as well as supplying medical technology products for home respiration, wound and stoma treatment, liquid, probe and intravenous nutrition, pain therapy and children's intensive care. The company provides in-house training and further qualification to its employees as well as external specialists. Distinguishing characteristics include its 24-hour availability, its proximity to the patients and its highly qualified patient services. Speed, capacity and reliability round off medigroba's profile. The company employs 70 people and services over 3000 patients. medigroba is certified in accordance with DIN EN ISO 13485.



KEY FACTS

Year established: 1975

Business purpose: Care of patients in hospitals, care facilities and at home with assistive and care products.

Products: Supply of patients with

- Medical devices like home ventilation, inhalation, drainage, oxygen supply
- Supply for tracheostomy care
- Wound and ostomy care
- Liquid and enteral feeding
- Intravenous nutrition and pain therapy
- Kid's care (children's intensive care)
- Incontinence care and other care products

Location: Balingen (D)

medigroba: helping with heart and expertise

Fresh capital for special pharmaceutical company AMW

KEY FACTS

Year established: 2004

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

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

Location: Warngau (D)

Headquartered in the town of Warngau, south of Munich, AMW is a dynamically growing specialty pharmaceutical company with brilliant prospects. The



company develops and distributes transdermal systems consisting of drugs that are administered through skin patches, as well as implants that evenly distribute active ingredients throughout the body for months and completely dissolve in the process. AMW is backed by well-known investors. SHS has been an investor since 2008. The fresh capital is to be used to promote the development of new products and expand production capacities. The investors including the Bavarian growth fund initiated by the Bavarian Economics Minister, Ilse Aigner, reaffirmed their commitment to the company by injecting

another six million euros of fresh capital into the company in a recently completed round of financing. "AMW meets all the requirements for continuing the dynamic and successful development of the past few years", says Ilse Aigner.

Read more:

- [Spezial-Pharmaunternehmen AMW geht voran mit großen Schritten](#)
- [6 million euro financing round completed for Bavarian MedTech company AMW](#)

phenox: 2017 growth champion

The SHS investment phenox in Bochum is among the fastest growing companies in Germany. This is the result of a study of company sales growth in the years 2012 to 2015, which Focus magazine conducted together with the statistics companies Statista. phenox has received this distinction now for the second time in a row. "The company has developed superbly in recent years and this distinction is further proof of this," said Hubertus Leonhardt, partner at SHS. "On behalf of SHS, I would like to thank the management and the entire team for their excellent work."

KEY FACTS

Year established: 2005

Business purpose: development, production and distribution of instruments for treatment of acute ischemic strokes, and implants for hemorrhagic strokes/aneurysms

Products: pREset (mechanical thrombectomy system); p64 Flow Modulation Device (treatment of complex intracranial aneurysms and dissections); pCONus implant (treatment of complex intracranial bifurcation aneurysms); LIR aspiration catheter

Locations: Bochum (D) and Galway (IRL)



SIS Medical opens new production location for further international expansion

KEY FACTS

Year established: 2007

Business purpose: development, production and distribution of products for the treatment of vascular disease with a focus on balloon catheters.

Products: PTCA Balloons, PTCA guide wires, catheters and accessories.

Locations: Winterthur (CH), Frauenfeld (CH)

SIS Medical AG has moved into its new production facility in Frauenfeld and is thus prepared for further international growth. The company is already among the leading manufacturers of high-pressure and super high-pressure balloon catheters for interventional cardiology in Europe and will now push for further international expansion. Additional new hires are also planned as part of this effort. The new production facility in Frauenfeld is certified according to the standards ISO 13485 and ISO 9001 and thus ensures adherence to high safety and quality standards, thus also facilitating the approval process for new markets. In addition to this, the company will significantly increase its investment in the



development of new products as well as the international market registration.

SIS medical's production facilities in Frauenfeld

TNI medical develops innovative respiration technology for the chronically ill

A growing number of people around the world are suffering from chronic obstructive pulmonary disease (COPD) and according to the World Health Organization (WHO), COPD is the fourth leading cause of death globally. With a high level of innovation and backed by a star-studded international medical advisory board, TNI medical, which is based in Würzburg and is a portfolio company of SHS Gesellschaft für Beteiligungsmanagement, has taken on this disease and developed new approaches to its treatment. Rather than simply optimizing the previous so-called gold standard of respiration, the closed nasal and facial mask, TNI medical has focused on the needs of patients. After all, conventional masks are considered to be useful, but not appreciated much by patients.

"The TNI technology, which provides treatment with nasal insufflation via a nasal cannula, offers patients significantly more comfort and thus simplifies their lives," explains Ewald Anger, CEO of TNI medical. "To ensure a sufficient air supply to patients in this way, air treatment had to be optimized to increase effectiveness." The nasal cannula supplies patients with a constant, warm, humid, and, if necessary, oxygen-enriched, precisely regulated flow of air.

Over nine years of development work was required. This risk is paying for itself with the new treatment possibility. The TNI technology is enjoying great patient acceptance and, according to Ewald Anger, initial clinical trials are showing higher survival rates in the treatment of patients with acute respiratory diseases.

Even in its first round of financing, TNI medical sought experienced partners - most notably SHS Gesellschaft für Beteiligungsmanagement, which specializes in the financing of medical technology companies and has not only contributed financing, but also brought contacts to the company from its large network. It provides support with regard to manufacturing and approval issues as well as reimbursability issues.

The long years of hard work are now bearing fruit. The TNI devices are obtaining approval for sale in a growing number of countries - in the last 12 months alone, the Würzburg-based company entered 22 new markets. Turnover has also increased. In 2015 it even rose by 250 percent to 3.4 million euros. The Highflow treatment thus has good chances of

KEY FACTS

Year established: 2007

Business purpose: development, production and distribution of diagnostic and therapeutic devices for breathing support for homecare and clinical use.

Products: clinical and home respirators TNI® softFlow 50.

Location: Würzburg (D)



becoming the standard treatment for COPD-related diseases. There still remains much to be done for TNI medical, because the competition never sleeps in this market, which Deutsche Bank has estimated to be worth four billion euros worldwide.

The home respirator device "TNI softFlow 50"

INSIDE SHS

Uwe Steinbacher presents at MEDICA 2016 on "how financial investors enable innovations"

Together with Ewald Anger, board member of TNI medical AG from Würzburg, an SHS portfolio company, SHS partner Uwe Steinbacher presented at the COMPAMED Suppliers Forum as part of MEDICA 2016 on the topic of "how financial investors enable innovations". TNI provides a very good example of this. In addition to providing financing, SHS primarily supported the company by providing contacts from its network to consult TNI with regard to manufacturing and approval processes and help with the subject of reimbursability.

TNI develops and markets a device for the treatment of chronic obstructive pulmonary disease (COPD), which is regarded as one of the leading causes of death worldwide. As Anger and Steinbacher reported, the funds provided by SHS had been invested primarily in the currently sought FDA approval for TNI's main COPD product as well as the ongoing multicenter clinical trial "TIBICO". "The company's range of services has thus been complemented with additional clinical evidence, which is an essential success criterion for healthcare companies", explained Ewald Anger.



Uwe Steinbacher at the COMPAMED Suppliers Forum 2016

Losses from the investor perspective - Hubertus Leonhardt on Finance TV

Although no venture capital law was enacted in this legislative period, at least a law pertaining to tax losses was agreed on shortly before the end of 2016. The law simplifies accounting procedures for losses for startups during new rounds of financing. On Finance TV, you can see how SHS partner, Hubertus Leonhardt, views this law and which other developments are required with regard to growth financing.



[Find out more... >>](#)

Hubertus Leonhardt talks about loss allocation on Finance TV

Cornelius Maas explains the investor perspective on eHealth at the 2016 German Business Angels Day in Nuernberg

In a keynote speech, investment manager at SHS, Cornelius Maas, provided insight into the topic of eHealth at the 16th German Business Angels Day. Cornelius Maas explained to the audience where SHS sees the opportunities and risks associated with the subject.

Evidence of medical benefits as well as the issue of data protection require particularly thorough examination in Germany, according to Maas. Possible investments should also always be checked with regard to the sustainability of the respective business model.

eHealth is currently a very dynamic market, as reflected by SHS's deal flow. The benefits and risks of the individual business model are always to be precisely assessed in each case.



Cornelius Maas at the 2016 German Business Angels Day

New to the team: René Wagner

René Wagner (30) joined our back office team in the area of accounting and controlling in the middle of 2016. The focus of his job at SHS consists of monitoring payments, travel and expense accounting, as well as monthly controlling of the portfolio companies. Before that, Mr. Wagner worked as a clerk at Sächsische Aufbaubank (SAB). He was primarily responsible for examination and approval of applications there. The native of Dresden completed his studies in business administration at the TU Bergakademie Freiberg.



René Wagner is a new controller at SHS

CAREER

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 together 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 >>](#)

Jobs at SHS portfolio companies

Territory Manager / Area Sales Manager (UK)

TRI Dental Implants AG is one of the fastest growing providers of high quality dental implants in Switzerland. Become part of our successful team! We are looking for dynamic sales representatives for our expansion in the United Kingdom.

[Find out more >>](#)

Territory Manager / Area Sales Manager (D)

TRI Dental Implants AG is one of the fastest growing providers of high quality dental implants in Switzerland. Be part of our successful team! We are looking for dynamic sales representatives for our expansion in Germany in the regions of Bavaria, North Rhine-Westphalia, Hamburg, Berlin and Baden-Württemberg. [Find out more >>](#)

Territory Manager (CH)

TRI Dental Implants AG is one of the fastest growing providers of high quality dental implants in Switzerland. Be part of our successful team! We are looking for dynamic sales representatives for our expansion in Switzerland in the regions of Bern / Basel, Eastern Switzerland / Liechtenstein / Grisons and Romandie. [Find out more >>](#)

Sales Support Specialist (Outbound)

TRI Dental Implants AG is one of the fastest growing providers of high quality dental implants in Switzerland. Join our successful team in Fribourg. Your job will include the successful telephone presentation, consulting and sale of our product portfolio to dentists and dental technicians, systematic scheduling of appointments for your sales rep co-workers, and making calls to follow up on email campaigns in Germany and Switzerland. [Find out more >>](#)

International Sales Manager

TRI Dental Implants AG is one of the fastest growing providers of high quality dental implants in Switzerland. In the role of International Sales Manager you will be responsible for the international distributor network of TRI Dental Implants, both in revenue and business development. You will be supported by an Assistant for International Sales.

[Find out more >>](#)

R&D Project Manager

TRI Dental Implants AG is one of the fastest growing providers of high quality dental implants in Switzerland. In the role of the R&D Project Manager you will support, execute and manage projects in the field of product development, regulatory affairs and quality management. [Find out more >>](#)

Project Manager Research & Development

SIS Medical is a fast-growing globally active medical technology company. It develops and produces innovative balloon catheters for interventional cardiology: This job includes the development of medical devices from the idea to the production stage in interdisciplinary cooperation with the involved teams as well as the technical leadership of a project team during the entire project phase, ensuring documentation and traceability of all products created within the project phase, assisting in the creation of marketing materials and maintaining contact with partners and doctors.

[Find out more >>](#)

Project and design engineers (m/f) in the fields of chemometrics methods and analytics, electronics and laser spectroscopy

SECOPTA analytics GmbH provides solutions for analytical tasks in industrial environments. The focus is on laser spectroscopic systems for elemental analysis based on laser-induced breakdown spectroscopy (LIBS). Applications for the robust inline industrial measurement technology include quality assurance, confusion inspection and process

analysis. For primary and secondary raw materials, SECOPTA provides fast sensors for sorting (precision recycling) and volume flow evaluation.

If you already have experience with industrial laser analysis and LIBS, we look especially forward to receiving your application. [Find out more >>](#)

PRESS REVIEW

Selected press starting in October 2016

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

unquote, October 7th, 2016: "German VCs welcome loss carry-forward reform"

The new German law affecting losses carried forward has attracted international attention. The renowned unquote web platform has conducted interviews on the subject with various experts. Hubertus Leonhardt expressed his opinion on the new law for SHS and drew a positive conclusion. At slower speeds to market entry and new financing rounds, it is problematic for companies and investors when losses carried forward are reduced or removed. This regulation is to be adjusted with the new law and therefore simplify financing rounds and handling investments - a step in the right direction.

[Find out more \(login required\) >>](#)

Schwarzwälder Bote, November 15th, 2016: "Investor steigt bei medigroba ein" (Investor acquires medigroba shares)

SHS's presents its most recent investment, medigroba, in the Schwarzwälder Bote publication. The company is one of the largest homecare providers in the region and intends to be among the leading providers in Germany on the medium term. Investment is to be made in organic growth as well as acquisitions to this end. [Find out more >>](#)

Stuttgarter Zeitung, December 21st, 2016: "Wirbelsäulen-Implantate aus dem 3-D-Drucker" (Spinal implants from the 3-D printer)

The Stuttgarter Zeitung newspaper presented one of SHS's most recent investments. SHS has contributed growth financing to EIT. The portfolio companies is committed to the 3-D printing of spinal implants. The funds from the new round of financing will primarily be used for international expansion and promoting further product development.

[Find out more >>](#)

International trade media is also widely reporting on SHS's investment in EIT. Publications include the US trade journals Inside 3D Printing and Becker's Spine Review:

Becker's Spine Review: [Find out more >>](#)

Inside 3D Printing: [Find out more >>](#)

Investment focus:

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