

TRANSFER

The Steinbeis Magazine

Individual solutions from a single source

Steinbeis on a local level

Our centers in the Neckar-Alb region

The Wireless M-Bus shifts into top gear

Steinbeis develops primary communication
solution

Calling all female engineers!

Paths back to full-time work for mothers

Transfer across borders

Steinbeis involvement in the EU Danube Region
Strategy

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Find an overview of all Steinbeis Enterprises and their services on www.steinbeis.de → our experts

Dear readers,



Prof. Karl Schekulin

is the director of the Steinbeis Transfer Center for Process Development in Reutlingen, just one of over 60 Steinbeis enterprises in the Neckar-Alb region. All Steinbeis centers in the area are presented on pages 4 to 8.

the southern German region of Neckar-Alb is home to over 60 Steinbeis enterprises working in an astoundingly multifarious range of specialist fields, from textiles to production and automation technology, microelectronics, sensors, renewable energy, business information systems, marketing and management, clinical biomechanics, and regenerative medicine – just to name a few of the specialties covered by Steinbeis companies, many of which are based at local universities.

The Neckar-Alb region is shaped by small and medium-sized businesses, as well as by the manual trades. Many of the companies in the area are owner-managed and the owners understand their customers' requirements well. These frequently result in new projects for the Steinbeis Network. Collaboration between Steinbeis and local SMEs fuels novel ideas, lucrative niche products and new USPs. It also safeguards jobs. Solving problems and coming up with new concepts means moving fast, and the rate at which companies innovate must be rapid: today's idea is tomorrow's implementation. This is where collaboration with Steinbeis comes in, and Steinbeis is ideally geared to partnership through its smoothly running network.

Turning to myself, I have been actively involved with Steinbeis for nearly 35 years. I started in technical consulting but later moved on to head up the Steinbeis Transfer Center for Process Development. At the center, our main focus is on developing new production methods across a whole host of industrial applications. Examples of our main areas of work include 5-axis CNC sink erosion (once mocked by some, now a standard process the world over) or electrochemical erosion using modular pulsed DC technology up to 10 kHz and 10,000 amperes at peak pulse (once dismissed as toying in the laboratory, now components made with this process are flying through our galaxy).

During these 35 years with Steinbeis, I believe an important framework has also been established for furthering the successful development of medium-sized companies. Personal commitment is a must to ensure that innovation maintains the necessary momentum. This is not much of a problem for larger companies, since, in percentage terms, fuelling innovation has little impact on the overall workforce. But it's a central issue for SMEs. If a company staffed by 20 employees wants to set aside two developers, that is already 10% of the manpower. The fact that SMEs still manage to develop new products is only because people – right up to the boss – essentially invest their own "part-time" resource into problem-solving, frequently with the support of Steinbeis. So it is extremely important that workers are qualified and highly trained. Ultimately, the success of SMEs boils down to their ability to "think opportunity" and "think business application and industry," without taking their eye off the ball. Our strong partnership with the Reutlingen chamber of commerce (IHK) and its role in the Neckar-Alb region is definitely worth mentioning in this context. Everyone is singing off the same song sheet, and perhaps more importantly, they are all singing in harmony!

I hope you enjoy reading this latest edition of TRANSFER and that it provides you with much inspiration.

Karl Schekulin

Prof. Karl Schekulin



There are 64 Steinbeis Enterprises (SEs) in the Neckar-Alb region (located in the "Swabian Alb" hills of Baden-Württemberg): 12 at the University of Tübingen (Eberhard Karls University), 6 at Albstadt-Sigmaringen University of Applied Sciences, 21 at Reutlingen University, 1 at the Rottenburg University of Applied Forest Sciences and 24 centers in other locations.

To find out more, go to: www.steinbeis-neckar-alb.de



Steinbeis on a local level

Knowledge and technology transfer in the Neckar-Alb region

It is fields like mechanical engineering, the automotive industry, medical technology, textiles, biotechnology, forestry, and regenerative energy that have turned the region of Neckar-Alb into a flourishing economic area. Traditional workshop businesses, medium-sized enterprises and corporations known throughout the world are like an insurance policy for the future of the local economy. But research and development also play an important role, a job taken on in the Neckar-Alb region by the University of Tübingen and universities in Reutlingen, Albstadt-Sigmaringen and Rottenburg, as well as a variety of internationally recognized research institutes in the area. Such location factors are an ideal foundation for successful knowledge and technology transfer. With their broad spectrum of services, the Steinbeis Enterprises based in the Neckar-Alb region significantly contribute to this success.



Steinbeis has been proactively fostering knowledge and technology transfer in the Neckar-Alb region since the late 1960s. To this end, Steinbeis works with the following partners in the area:

The University of Tübingen (Eberhard Karls University): The University of Tübingen is one of the oldest universities in Europe. Teaching at the university reflects the breadth and multi-disciplinary scope of its research. The university currently offers over 280 degrees in seven departments, ranging from Egyptology to Dentistry, culminating in a bachelor, master, German diploma, German Magister, the German licensing examination Staatsexamen or a doctorate. The approach toward tightly interwoven research with teaching is a particular strength in Tübingen and this approach is also applied at Tübingen University Hospital, now established as one of the leading centers of university medical teaching in Germany.

Albstadt-Sigmaringen University: Albstadt-Sigmaringen University is a university of applied sciences with a particular leaning toward engineering and business studies. It spans three departments offering courses with a strong scientific foundation, based on business practice and international standards. The university's degree programs are closely based on the demands of trade and industry, and are geared to students from a variety of academic backgrounds. The university works in close cooperation with local companies.

Reutlingen University: Reutlingen University is one of the leading universities of applied sciences involved in international and academic teaching with close ties to industry. Approximately 5,100 students are enrolled at the university on 38 bachelor and master degree programs spanning five departments. Through collaboration with trade and industry, direct contacts at companies as well as cooperative teaching and research projects, the university offers an ideal blend of theory and practice.

Rottenburg University of Applied Forest Sciences: Rottenburg University runs five bachelor of science programs and one master degree program. The aim of its degree programs is the sustainable management and utilization of natural resources. Practice-based research is a major emphasis at Rottenburg University. During their studies, students are taught early how to manage projects and work in teams, with a strong focus on business practice and scientific application, underscored by collaborative projects with partners from industry and public administration. The university is also involved in managing research projects working in collaboration with a variety of German and foreign universities, as well as partners from trade and industry, research and public administration.

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Lean Six Sigma

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“Never a dull moment!”

An interview with Prof. Dr.-Ing. Harald Augustin

Professor Augustin, your Steinbeis Transfer Center for Process Management in Product Development, Production and Logistics, which is based at Reutlingen University, has been specializing in the end-to-end optimization of business processes for over 10 years, across the manufacturing industry, trade and services. What was behind your decision to take a holistic approach to optimization and how does this translate to implementation in practice?

In business, success has many fathers. In other words, there are many buttons that can be pressed in a business to be successful. This is not just in terms of processes, but also the people, the technical infrastructure, IT, management systems, even how you deal with clients and suppliers. Only when all of these factors work in harmony does everything function as a whole.

It's a complex, interwoven network of influencing factors, and to do justice to this, ever since our early days, we've always taken a holistic approach to things, building on each constituent part. In practical terms, this has meant we've had to work on specific areas within a project, while always referring to the other constituent parts. We had to know what impact these other parts would have on the specific topic we were looking at and include that in the consultation. So "holistic" also means that – in addition to developing or planning projects – we also implement them. Around 95% of our projects involve implementation, so we don't just help the company with the planning, we also deliver the project. The advantage with this for clients is that they can count on us to stay highly committed. For us, the advantage is that we can gather more experience on each project, especially during implementation and this can then flow back into new projects during the earlier planning stage, which is ultimately also of benefit to the customer.

Your Steinbeis Enterprise is based in the Neckar-Alb region, which is known for its strong industrial base, especially in mechanical engineering, the automotive industry, medical technology, textiles, biotechnology, forestry, and regenerative energy. What impact does this economic environment have on your work at the center?

Neckar-Alb is shaped by the highly innovative medium-sized companies in the area that operate on an international level. If they weren't, they wouldn't survive in their sectors of industry, which have high demands. Being innovative is not just about products but also about processes. In international competition, it's not enough for products by themselves to be good, they have to be produced efficiently and distributed worldwide through efficient supply chains.

For us, being a partner to industry means that we have to stay completely up to speed with the latest developments in terms of professional skills and methods. We also have to develop solutions which don't yet exist in the way they are actually needed. Being innovative is thus the key to our success. Even if the region of Neckar-Alb is a strong growth area, we can't afford to rely solely on this area in physical terms, since lots of companies are now global. So we're now also working for several customers on an international level. This adheres to the philosophy of thinking locally, but acting globally.

Your work focuses on developing concepts for business divisions and implementing them, as well as designing and optimizing processes, but also introducing new methods and IT solutions in product development, production, and logistics. Which of your services are currently in strong demand from companies? To what extent have customer requirements and needs changed in recent years?

Developments in product development, production, and logistics have varied quite a bit over the course of the last ten years. There has been major progress in product development in terms of applying methods to the optimization of processes. Methods in the field of quality management and lean management have increasingly made inroads into our projects and the work of developers and designers has become more efficient. We noticed with our projects in these areas that the concept of customer requirements is becoming more and more prevalent. At the same time, the markets have come up to speed, and products and services have to be developed in shorter and shorter cycles. They also have to be an exact match with the requirements of the customer in shorter time to market. This can no longer be accounted for profitably in the development process without strict application of methods, so we've done some intensive, yet very successful work with some clients in this area.

In the area of production, demand was and still is strong for applying lean management and six sigma philosophies. We were able to provide plenty of good input in such projects based on our holistic approaches – and still can today – as the requirements of our customers have turned more and more in recent years toward the sustainability of implemented measures.

In the area of logistics, we're currently experiencing a huge surge in inquiries relating to the optimization, planning and implementation of warehousing facilities. These range from process optimization to the construction of new facilities, with everything in between. One trend at the moment is the application of lean management and six sigma philosophies in warehouses, an area offering significant potential to leverage improvements. We've been a bit of a trendsetter in terms of lean warehousing, which enabled us to capture the imagination of a wider audience in 2008. We've now specialized even further in this area and are currently working more closely on topics like shop floor management. We've also been able to adhere to our holistic approach in this area. As Aristotle said, "the whole is greater than the sum of its parts."

Your client base includes a predominance of medium-sized customers. What challenges do you feel this poses, not just for yourself but also for the work of your Steinbeis Enterprise?

Since many medium-sized enterprises serve clients of all sizes, including large organizations, we also have to know and understand the business environment of those companies. As a result, we also work with big companies, from Hamburg in the north to Munich in the south. Through our projects we're exposed to the language of our customers, and their suppliers, and this feeds back into project know-how, spanning all parts of the process chain. It also equips us to plan and implement projects more holistically.

One fundamental challenge we face stems from the fact that the methods of lean managements and six sigma are more geared to high-volume serial production and are not necessarily a good fit with medium-sized enterprises. Nevertheless, to still be positioned to derive benefit from these methods, they have to be adapted to the many application scenarios faced by SMEs. This is a challenge for us, but one

we're excited to take on as it's actually quite fun continually overhauling systems and adapting to the specific requirements of the customer.

So there's never a dull moment as each project has its own idiosyncrasies which can suddenly become a new or different kind of challenge! We see ourselves as a production line for expert advice, but nothing is off the shelf. Everything revolves around the problem of the client so each solution is customized, even if it's based on tried-and-tested methods.

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- Strategy consulting
- Concept and scenario planning
- Implementation, planning and support, including change and project management
- Structuring of virtual working environments
- Training courses and seminars for managers and employees
- Expert reports

Key areas

- Optimization of product development processes
- Factory planning
- Lean production
- Warehouse planning
- Lean logistics and lean warehousing seminars, training and courses



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Skills.Degree.Employability.

The 2012 Stuttgart Competence Day

"Employability" means being able and willing to prepare oneself for the world of tomorrow. And against a background of increasingly dynamic economies, it is becoming central to both entrepreneurial and personal success. The Fifth Annual Stuttgart Competence Day, which took place on November 29, 2012, turned the spotlight on this success factor. Around 650 delegates accepted the Steinbeis invitation to discuss this topic and the approaches taken by businesses and universities toward employability. They also considered the impact of educational reform under the Bologna process.

In his introductory speech, Prof. Dr. Werner Faix (from the School of International Business and Entrepreneurship (SIBE) at Steinbeis University Berlin) examined the underlying meaning of employability and the contribution universities can make to ensure students not only develop the right skills but also have the courage to tackle the employment market in its current state, which is highly dynamic and complex, and marked by uncertainty.

Christiane Konegen-Grenier (from the Cologne Institute for Economic Research) discussed employability from the perspective of companies and examined the skills sets they expect of their workers. In his presentation, Prof. Dr. Urs Baldegger (University of Liechtenstein) introduced the master degree in entrepreneurship offered by the University of Liechtenstein and looked more closely at the unique connection between actions and learning, and the mixture of methodologies derived from this which feeds into the degree.

Prof. Dr. Julian Nida-Rümelin (Ludwig Maximilian University, Munich) explored the education goals of universities in his speech, and Dr. Peter Wex made a critical assessment of skills at universities. Drawing on the example of the degree at the College of Jewish Studies in Heidelberg, Prof. Dr. Johannes Heil (from the college in Heidelberg) presented the possibilities of personal and skills development.

In a joint presentation, Prof. Dr. Tina Klein (University of California) and Annette Horne (SIBE) showed the results of the SIBE CEO Schumpeter Study carried out in the United States and Germany. Prof. Dr. Ulrich Rüdiger (University of Constance) discussed how skills, personality and employability can be developed as part of the technical and natural sciences degrees at universities, examining the pros and cons of the newly recategorized degrees as part of the Bologna process.

Prof. Dr. Rudolf Tippelt (Ludwig Maximilian University, Munich) presented the results of education research on "The Status of Education in Tertiary Education." In his speech, he took a closer look at issues such

as the starting point for university education, university funding, degree standards, degree qualifications, where graduates end up, the internationalization of universities and continuing professional development in the sciences.

Silke Keim (SAPHIR Kompetenz GmbH), Stefanie Kisgen (Steinbeis Transfer Institute of International Management, SHB) and Prof. Dr. John Erpenbeck (SIBE) ended the proceedings with a presentation on the scope of skills development as part of a Project Skills Degree, drawing on the example of the management degree programs offered by the School of International Business and Entrepreneurship at the SHB.

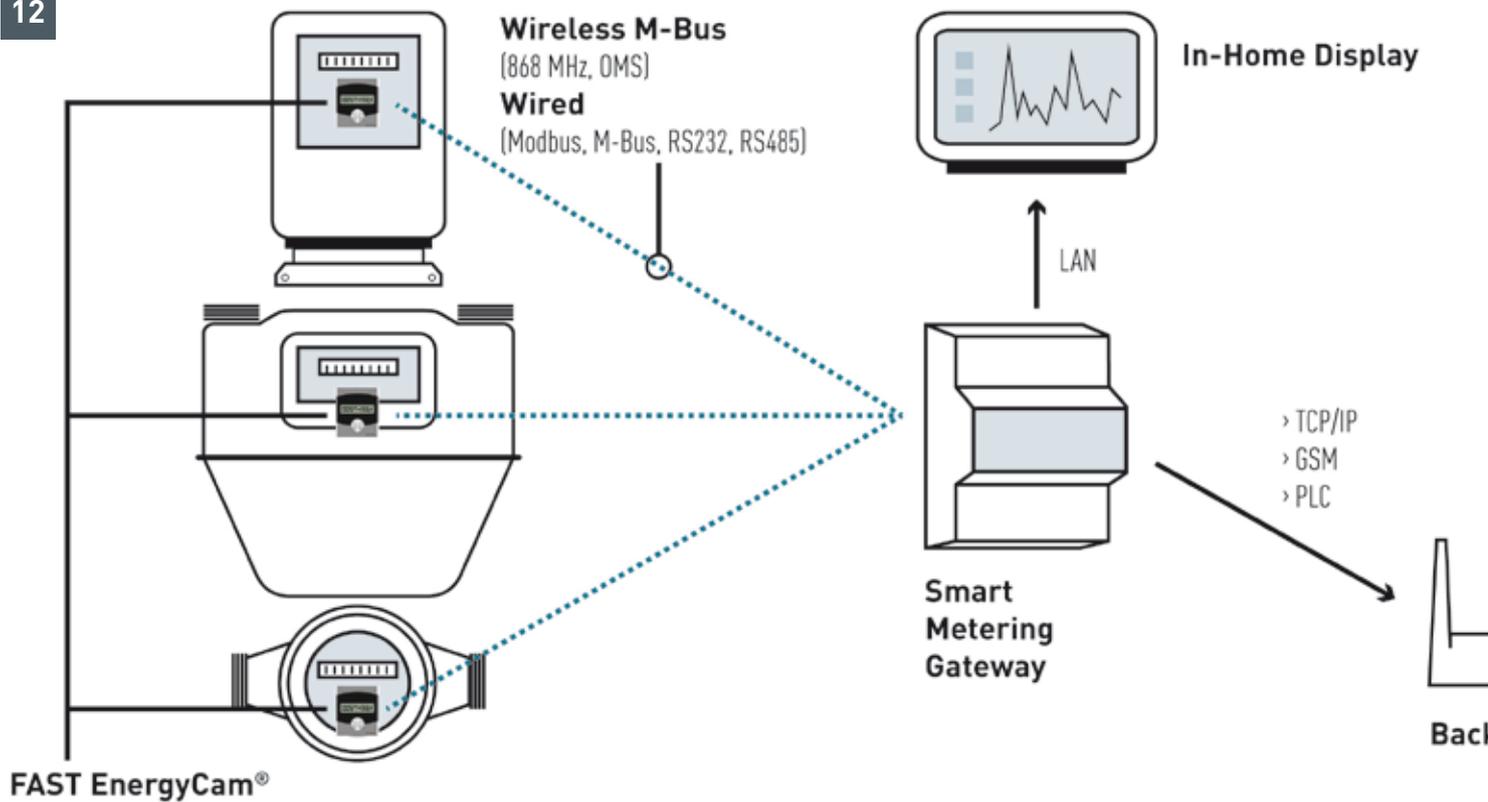
The next Stuttgart Competence Day is due to take place on December 6, 2013.

All speeches, to be published as part of the conference proceedings issued by Steinbeis Edition, will be available in German shortly.

To view videos of the event and gain an impression of the day, visit: www.stuttgarter-kompetenz-tag.de.



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On the rise: The wireless M-Bus

Solutions for primary communication

The transition to alternative energy sources is a fundamental issue – not just for Germany, but also for many regions across the globe. Communication solutions are fast becoming a key component of the more efficient and stable distribution grids. They allow for real-time monitoring that serve as a basis for the application of coordinated control algorithms. This applies to all levels of generation and supply, but from the perspective of communications technologies, distributed grids are certainly the most interesting: especially in light of more ambitious demands related to cost and energy optimization of the communication nodes, ease of administration, high stability, and wide scalability of the overall solution. The Steinbeis Transfer Center for Embedded Design and Networking at the University of Applied Sciences in Offenburg, directed by Prof. Dr.-Ing. Axel Sikora, has developed an extensive set of solutions for this so-called primary communication in collaboration with renowned partners.

Not only ZigBee-based solutions, but also the Wireless M-Bus protocol is gaining in popularity. Based on the European standard EN13757, it covers the complete communication stack. In the various modes, several frequency bands and modulation types are available on the physical layer, providing a solution that best meets a variety of given requirements. The n-mode, in particular, provides a variant in the 169 MHz range, which promises long range and is suitable for difficult topologies in rural regions.

In terms of integration in applications and guaranteed cross-manufacturer interoperability, the open metering system (OMS) developed under the auspices of a number of German manufacturers plays a particularly significant role, since it supports integration into the complete user environment. This especially includes functions related to commissioning, monitoring and updates. In addition, the OMS group developed a conformity tester in the second half of last year. Employees from the Steinbeis Transfer Center for Embedded Design and Networking are actively contributing to the ongoing development of the OMS specification and the integration of security solutions.

Data protection, protection of communication elements, and the provision of secure virtual private networks (VPNs) – primarily used for

protection against attacks from external networks – all play a central role in security issues. Also the German Federal Office for Information Security (BSI) has been grappling with this issue since beginning of 2011, and has developed a draft for both a protection profile for the communications unit of an intelligent metering system and a new technical guideline (BSI-TR 03109); the "Protection Profile for the Gateway of a Smart Metering System" and the "Requirements for the Interoperability of a Communications Unit in an Intelligent Metering System for Measuring Material and Energy Quantities" resulted from this work. These drafts are currently in the last annotation phase and will be passed and published in due course. Axel Sikora and his team are also actively contributing to this process. In particular, they have been named the primary contact partner to represent the M2M Alliance to both the German Federal Ministry of Economics and Technology and the BSI, and they have been responsible for the coordination of the annotation phase.

The Steinbeis Transfer Center for Embedded Design and Networking also developed firmware solutions for the various modes of the wireless M-Bus, which have now been made available for customer projects. These solutions are highly flexible on account of their integrated support of all relevant modes (C, N, S, and T). What's more, they are highly modular in their implementation with open interfaces and numerous



integration options. Users benefit from excellent portability with respect to microcontrollers and RF transceivers, with porting options for a variety of hardware products already available. The flexible portability also enables use of software in a network simulator, which allows for elegant and efficient parameter definition in large installations. The firmware solutions have proven to be highly reliable in both the testing phases of development as well as during the adoption in conformity tests.

In addition to the actual protocol implementation, tools were also developed for the running and monitoring of functions. An example of this is the product "capt2web". It is based on the embedded Web server "emBetter", which was designed by the Steinbeis transfer center and allows XML-based connection to the Wireless M-Bus. This enables both simple monitoring of the network as well as immediate connection to an intranet or the Internet.

The FAST EnergyCam® clip-on meter reader allows for the wireless metering of mechanical counters. A wireless M-Bus drives the communication solution behind the FAST EnergyCam® – the technology underlying the solution itself is brought to you by the Steinbeis Transfer Center for Embedded Design and Networking.

Projects at the Steinbeis Transfer Center for Embedded Design and Networking

- An innovative energy management and communication system was developed within the scope of the DEMAX network project: "Decentral Energy and Network Management with Flexible Energy Tariffs" – an initiative sponsored by the German Federal Ministry of Economics and Technology as part of the ProInno program for fostering innovative networks. This system enables independent energy producers and loads from both the commercial and private sectors to be included on the energy market. The Steinbeis experts developed an Internet-based communications platform based on new-generation embedded systems, which can integrate modern metering systems as well as wireless sensor/actuator networks for connection to meter counters and control of energy loads and producers.
- The ME3GAS project was set up to tackle the development of "Smart Gas Meters & Middleware for Energy Efficient Embedded Services". It is supported by the European Commission and the German federal government within the scope of the Artemis Joint Undertaking (Artemis JU). In addition to R&D institutions, manufacturers of consumption meters and measuring devices, in addition to energy suppliers, are also contributing to the project.
- As part of the two-year WiMBex project "wireless water meter reading solution based on the EN 13757 standard, providing high autonomy, interoperability and range" – a project sponsored through the EU's Framework Program for Research and Technological Development – project partners from Spain, Ireland, Great Britain, Hungary, and Germany are developing cost-effective radio modules for the primary communication layer, which can energize themselves through small water flow generators (maintenance-free) and network with one another automatically.
- In addition to these publically sponsored projects, the Steinbeis transfer center is also involved in numerous industrial development projects. Direct license agreements with large semiconductor manufacturers, which cover the use of software solutions developed by the Steinbeis experts, are central to this work.



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Wing.



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Wanted: Female Engineers!

The German Aerospace Academy (ASA) develops concepts for returning to full-time work

In Baden-Württemberg alone, around 6,000 female engineers are no longer in employment, despite the fact that the skills shortage is likely to worsen due to demographic change. In economic terms, this is a total waste of key resources. In social policy terms, it should be an obligation to offer working parents family-friendly and flexible career arrangements. Since its foundation, the German Aerospace Academy (the ASA Steinbeis Innovation Center) has added equal opportunities and staff diversity to its portfolio. A member of the Life-Long Learning Alliance and a partner of the Pact for Women in MINT Careers, the center is developing new and innovative concepts for continuing professional development.

It has been known for some time that successful staff diversity brings commercial benefits. The ASA offers specialist knowledge and consulting through a variety of target group-specific services related to continuing professional development and recruitment. These ASA services are of

benefit to companies and women looking to return to a career in business. The center offers these services through its comprehensive network of contacts in the Steinbeis Network as well as in trade and industry. It also collaborates closely with industry associations, women's and voca-

tional help centers, the state employment agency and economic development organizations.

As part of a "Women in Science and Engineering" initiative, in 2011 the Ministry for Finance and Economics in Baden-Württemberg issued a state-wide request for proposals, calling for an effective concept to support the many highly qualified women wanting to return quickly to the field of engineering after childcare leave or working in other areas. The ASA was successful in gaining approval, under a project titled WING, which was piloted in 2011-2012. The program was designed to provide women with an important stepping stone back into their chosen profession by connecting them with companies that were desperately seeking qualified female employees. Central to success was the connection made between professional development and a 6-month company internship. The original program spanned four areas: aerospace, automotive, mechanical engineering and plant construction. It was received so well that the number of industries covered was gradually expanded to include industrial engineering, ICT, CAD, medical engineering and biotechnology.

Detailed interviews were conducted with 29 women to examine their previous experience and skills, develop a skills profile and gauge their expectations and current situation. They each received training on successful application strategies and attended several courses to expand their skills set. A Steinbeis certification course was specially developed for the target group of women returning to work under the title "Project Manager in Engineering." The aim of the course was to prepare women for their future role as a female engineer working in a team. The ASA also lined up internships within companies, each specifically matched to the profile of applicants, with the goal of assisting the women in entering a full-time position afterwards. Bringing together applicants and companies throughout the state, matching up qualifications, and finding positions in a nearby area turned out to be a major challenge.

The pilot project enabled the ASA to set up an active network of companies and female academics, easy to connect each other and with benefits for both sides. For both parties, working together is an attractive proposition. Most of the women already went back to work in 2012. Out of 27 applicants 24 had an internship and subsequently entered a proper position, and 15 of those were already back in their profession taken over in permanent employment on a part-time base early 2013.

The project did show, however, that flexible working arrangements are the real key to success. Most companies do already offer family-friendly working arrangements in their efforts to retain staff in the long term, but part-time positions for qualified professionals applying from outside the company are a rarity, especially in engineering.

The WING project not only showed that many qualified female academics are interested in professional support to return to their vocation, "starting again" really can work. This also underscores the valuable potential offered by the women returning to a full-time career. As a result, the ASA is determined to keep making targeted offerings of this kind available to women and companies. It also wants to make even more improvements to the circumstances surrounding a return to work.

Following the major success of the WING project, the Ministry for Finance and Economics in Baden-Württemberg continued its request for proposals at the end of 2012. Certain course modules will be redeveloped and expanded, the scope of the program will be rolled out to include all fields of engineering, advisory services will be extended, and it is anticipated that there will be more involvement from companies and women. Last but not least, the ASA was awarded the project once again for its extended concept. As a result, the established Project Manager in Engineering certification course will be offered again and additionally a new certification course on Product Lifecycle Management (PLM) is under development.

The latest recruitment drive started in early 2013. The aim is to pave the way for another 60 women to make a successful return to their chosen profession, complete with qualifications.

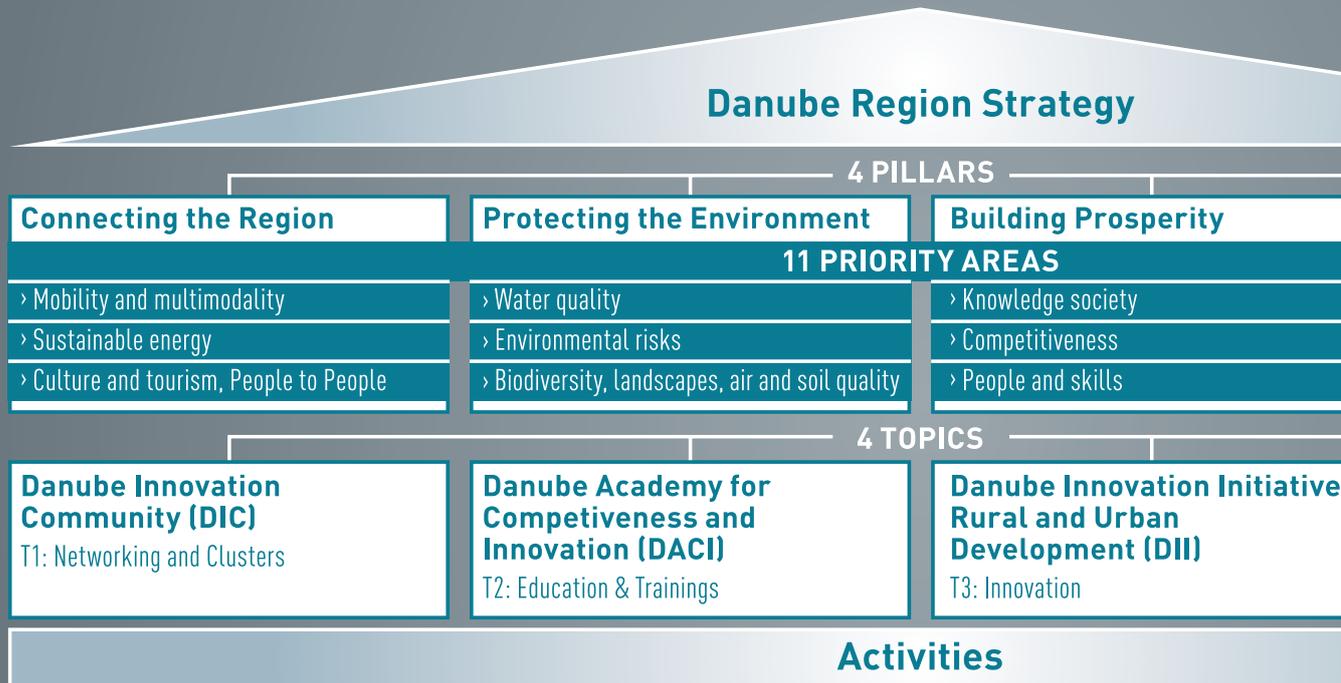
The skills shortage – a sensitive subject

There is an increasing shortage of skilled workers, especially among small and medium-sized companies. A number of reports have confirmed this, such as the recent report, "HR Strategy & Organisation 2012/13" issued by Kienbaum management consultants. One thing companies and industry associations agree on: This acute shortage has serious consequences. According to an estimate issued by the Association of German Engineers (VDI) and the Institute for Economic Research, last year, the German economy suffered a loss of 8 billion euros in added value simply because, every month, 92,000 engineering vacancies could not be filled.

In Baden-Württemberg alone, there is a shortage of over 20,000 skilled workers with an engineering background, and it is medium-sized companies in particular that are wringing their hands looking for technically qualified personnel. It is therefore imperative that women with family commitments are attracted back to work and that awareness within companies is raised. Supporting women keen to return to their chosen profession and advising companies on the issues encountered in this area will therefore remain an important focus of the work of the ASA.



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Aims of the EU Danube Region Strategy

Transfer across borders

Steinbeis enterprises give their support to the EU Danube Region Strategy

The establishment of Danube Transfer Centers in Romania, Serbia and Slovakia should bridge the gaps between research and innovation and make it possible to launch new products and services more quickly on the European market. This should add impetus to cross-border research and technology collaboration, plus EU projects in regions all the way along the Danube River, opening access to new markets. Ultimately, in times of skills shortages this should also be of benefit to companies in Baden-Württemberg. Steinbeis Enterprises are an excellent model of successful technology transfer. The first pilot centers are being set up at universities in Romania and Slovakia with the support of the Steinbeis-Europa-Zentrum and the Steinbeis-Donau-Zentrum.

In late 2012, Prof. Dr. Norbert Höptner, Commissioner for Europe of the Minister of Finance and Economics of Baden-Württemberg and Director of the Steinbeis-Europa-Zentrum, signed a cooperation agreement with five universities from Romania, Slovakia and Serbia in the presence of the Baden-Württemberg Minister of European Affairs, Peter Friedrich. The agreement covers the setting up of Danube Transfer Centers with whose help the gaps between research and innovation should be bridged. Business plans and business models have already been developed, individually by country and center, taking local conditions into account. An overarching strategy is also being developed to plan trans-national technology transfer in the Danube Region. Similarly, the intention is to fuel cross-border research and technology collaboration, submit joint EU funding applications and provide training to personnel in the Danube countries.

The centers being set up will be at the Slovak University of Technology in Bratislava, the Slovak University of Agriculture in Nitra (both in Slovakia), and the Technical University of Cluj-Napoca in Romania. The Technical University in Romania also has a cooperation agreement with Babes-Bolyai University. There are also plans in the pipeline for another center in Serbia at the University of Novi Sad.

The Danube Transfer Centers are an integral part of Priority Area 8 of the EU Danube Region Strategy. Priority Area 8 is being coordinated jointly by Baden-Württemberg and Croatia. The Steinbeis-Europa-Zentrum and the Steinbeis-Donau-Zentrum are spearheading a working group for innovation and technology transfer in the Danube Region. To help set up the Danube Transfer Centers, they are receiving an injection of funding from the German state of Baden-Württemberg. To safeguard

Strengthening the Region

> Institutional capacity and cooperation

> Security

Danube Technology Transfer Initiative (DTTI)

T4: Technology Transfer

their ongoing existence, the centers have committed to raise further domestic and European funding. The European networks of the Steinbeis-Europa-Zentrum and its many years working on European projects are helping to integrate the activities of the Danube Transfer Centers into the European Research Area and to set up joint funding projects. According to the Steinbeis philosophy, the Danube Transfer Centers should increasingly attract funding through projects with industry. Local demand for projects should be fostered by Steinbeis, for example by training innovation managers from Romanian companies.

There is still unused EU funding available for the year 2013, especially for projects in Romania and Bulgaria. The new EU funding period starts in 2014 with a variety of new programs and additional budgets, and it is these funding programs that the Steinbeis teams want to tap into. The aim is to involve companies from Baden-Württemberg and the Danube Region in activities, making the seller's market more attractive for German companies. Steinbeis will also strive to make suitable programs available in eastern reaches of the Danube Region.

Further development of the Danube Region will result in stronger demand for technology and services from Germany. How precisely this

demand develops and what will be the target of demand, can be shaped by becoming involved during the preparation phase. It is here that both Steinbeis Centers have a major opportunity to wield influence.

The EU Strategy for the Danube Region

The EU Strategy for the Danube Region works on a macro-regional level. Its aim is to foster closer collaboration between nations all the way along the banks of the Danube River in order to develop the economy in the Danube Region. The focal areas of the strategy are infrastructure, environmental protection, building prosperity and strengthening institutional leadership. In the long term, the joint strategy should turn the region into one of the most attractive regions of the 21st century. The Council of Ministers in Baden-Württemberg has appointed the Minister of European Affairs, Peter Friedrich, to act as a special representative for the implementation of the EU Danube Region strategy in the state.

The Danube Region Strategy has eight EU state members: Bulgaria, Germany, Austria, the Czech Republic, Hungary, Romania, the Slovak Republic and Slovenia. Non-EU state members of the strategy include Croatia, Serbia, Bosnia and Herzegovina, Montenegro, the Republic of Moldova and the southern regions of Ukraine.

Baden-Württemberg was the first region in Europe to recognize and further the economic, political and cultural potential of the macro Danube Region. The significance of this region lies not least in the fact that it simultaneously links EU member states, candidate countries and states with strong political ties with their neighbours.



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Reconciling Work and Family Life

Exchanging perspectives at Steinbeis University Berlin

Learn from the best – this was the underlying idea of a workshop on striking the right balance between work and family life held at the end of last year at Steinbeis University Berlin. Twenty HR managers responded to an invitation from Prof. Dr. Dr. Helmut Schneider, Director of the Research Center for Family-Friendly Human Resources Policy at Steinbeis University Berlin. During the workshop, they discussed the prospects for innovative working hour arrangements.



After shorts talks from Professor Schneider, Astrid Oellerer (Trumpf), Udo Schwab (Merck) and Dr. Hans-Peter Klös (Institute for German Economic Research), the workshop participants engaged in lively discussion. The conversation revolved around factors that promote and hinder innovative working hour arrangements at the workplace, and the time demands experienced by Generation Y. Opinions were shared openly, and everyone who attended agreed the day was extremely beneficial.

The workshop was organized through a company network on reconciliation management, an informal work group that regularly convenes to discuss current issues relating to reconciling work and family life. Summarizing the event, Professor Schneider says it was "An excellent platform, not only to exchange experiences between companies, but also for transfer between science and business." The next event will focus on healthcare and careers.



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Aerospace Engineering and Lightweight Technologies

New Master's program at the German Aerospace Academy (ASA)

Maintaining Germany's technological advantage and stemming the lack of skilled workers is a mission of the ASA, a Steinbeis Transfer Institute known as the German Aerospace Academy. Its new Aerospace Engineering and Lightweight Technologies program culminates in a Master of Engineering degree and complements the ASA's own training and continuing professional development program, which is aimed at the aerospace industry, automotive industry and all related branches. These sectors of industry are heavily involved in research and technology and seen as drivers of economic growth and employment.

The program is taught in English at the German Aerospace Academy (ASA) in Böblingen. It starts with the fundamentals of the aerospace engineering, lightweight technologies and relevant management subjects. During the second year, students are given the chance to specialize in aircraft technologies, space technologies, lightweight technologies, or a combination of all three disciplines. In this form, the specialization in lightweight engineering is totally new and underscores the huge potential this area holds for mechanical engineering overall. Lecturing staff is made up of specialists from leading universities like the University of Stuttgart, research centers like institutes of the German Aerospace Center (DLR) and companies.

Like all SHB programs, the new master program is job-integrated and is based on the project-competence-concept, which requires a supervised project in the student's company. Projects are supervised by two mentors: one from the company, one from the ASA. Applicants who are not employed or do not have a project will be supported by ASA to find a suitable company and project.



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Master of Arts in Internal Revision

New degree program at the School of Governance, Risk & Compliance

Starting in October, auditors working at all kinds of German companies will be able to gain a specialized master's qualification. The German Institute for Internal Auditing (DIIR) has entered into a strategic partnership with the School of Governance, Risk & Compliance (School GRC) at Steinbeis University Berlin (SHB),

making it possible for people in full-time work to gain more qualifications.

The two-year master program complements the continuing professional development program already offered by the DIIR. A certified university degree, the program covers a variety of disciplines and is closely matched to the changing nature of the profession, addressing the new range of tasks now required and evolving job demands.

Amplifying Students' Opinions

Student representatives look back

Time for student reps at Steinbeis University Berlin (SHB) to hand on the baton: As planned, at the end of last year Katharina Thau and Diego Ruch became head representatives for all students on the University Council, succeeding Karina Schuck and Matthias Völzke. The out-going student reps joined TRANSFER magazine to look back at their time in office.

The voluntary, unpaid work of a student rep covers many issues and topics. Sometimes a student might need personal support, due to academic or personal hardship. Sometimes there is a need for conflict mediation at one of the institutes. Sometimes people from inside or outside the organization simply need some questions answered. It's all in a day's work. There were a number of positive resolutions and highlights in 2012, plus successful head office projects. The six-monthly



student meetings were expanded in terms of content and frequency. This made it possible to organize social gatherings, and academic exchange with top-notch guest presenters could also be included. The number of regular student reps has now grown and it is now easier for students to network virtually in an online forum during the course of their studies, at <http://inside.steinbeis-hochschule.de>.

One of the highlights lined up by the student reps, which was organized for the first time in 2012, was a summer festival for the whole of Steinbeis University. This was an ideal opportunity for students, alumni

and lecturers to soak up the sunshine, share cocktails, listen to talks, play games to test mind and body, savor the food and enjoy an evening of live music. The next summer festival takes place on September 7, 2013, once again on the SIMT campus in Stuttgart.

To complete their time in office, the student reps conducted a survey among all students last summer. It attracted the highest return rate ever of over 1,000 questionnaires. The anonymous results of the survey have since been analyzed for all university departments and shared with the University Council. The president of SHB now plans to discuss the survey findings with institute directors and take action where necessary. Overall, studying at Steinbeis University would be recommended to others by 75% of respondents. The survey is scheduled to take place again this year.

Following in the footsteps of the head student reps on the University Council are Katharina Thau and Diego Ruch, both students at the School of Management and Technology. Both assumed office in October 2012. Having enjoyed their time representing other students, the out-going student reps wish them a rewarding and engaging time in office, that the open dialog and collaboration with university directors may continue, and that both parties support the interests of one another. They will also be available to answer any questions the two might encounter during their new careers as student reps!

Student representatives at SHB

The student representatives at Steinbeis University Berlin (SHB) constitute the major student committee of all degree programs offered by the Transfer Institutes. Their role is to work with others to steer the work of the university with the interests of students in mind. Students on all academic paths are eligible to vote and be elected as student representatives. The student reps are represented by two head student representatives on the University Council.



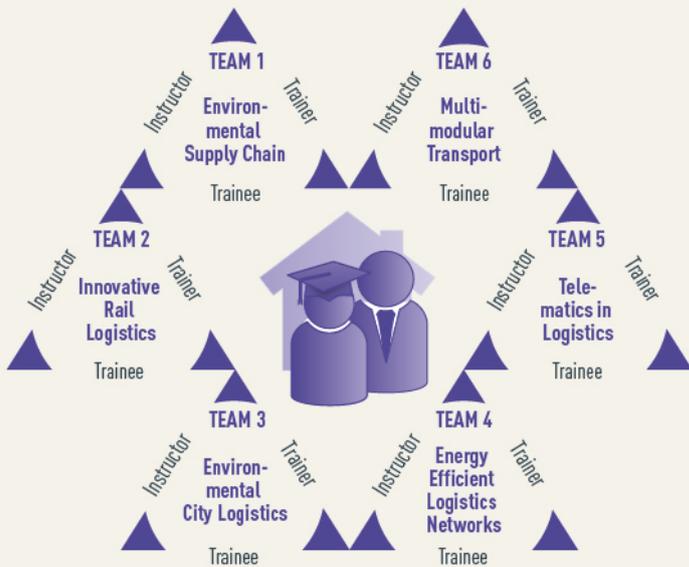
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The Project Competence Degree broadens the qualifications of internal auditors aspiring to enter a management position. The curriculum includes topics such as the nature of modern auditing, verification processes, specialist areas of revision such as white-collar crime or compliance, and legal issues pertinent to the profession of auditing. Seminars are closely geared to business practice, training course participants in key disciplines such as management, communication and conflict management. The students also gain exclusive access to a network of leading experts, become the first port of call for auditing

issues, and have the chance to dedicate their energy to scientific pursuits through specialist research and publishing.



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Interaction between roles across different industry areas

Energy-efficient Logistics

A plan for holistic qualification in the transport and logistics sector

Ranking third behind the automotive and healthcare industries, logistics is now among the most important economic sectors in Germany. In terms of energy efficiency and sustainability, however, activities within the sector show plenty of room for improvement. That's what makes the appropriate qualifications, especially in this area, both necessary and inevitable. In light of this, the Steinbeis Innovation Center for Logistics and Sustainability is now contributing its expertise to the "Energy Efficiency: Logistics" initiative of the German National Environment Foundation (German: Deutsche Bundesstiftung Umwelt – DBU).

Recent developments in climate change and globalization reveal a need to give energy efficiency a higher priority in the transport and logistics sectors. In the future, sustainable thinking should become so widespread within the industry that it is more highly valued and perceived as a natural element of daily business. The transport and logistics sectors currently reduce these two important principles to "green logistics", with relatively little consideration of the social aspects involved. What's more, these sectors are currently focusing primarily on measuring CO₂ footprints. But the most significant aspect isn't pure measurement, but rather keeping an eye on social and environmentally relevant factors.

"Energy efficiency: Logistics" – that's the name of an initiative sponsored by the DBU, which also calls on the expertise of the Steinbeis Innovation Center for Logistics and Sustainability in Sinsheim. The project focuses on helping trainers, instructors and trainees become qualified to improve energy efficiency within the transport and logistics sectors. The initiative uses a holistic approach to reach its objective of both sparking interest among trainees and carrying out qualification measures for company trainers and teachers at vocational schools. This concept serves to guarantee that affected parties from vocational schools and businesses possess

the skills set necessary to implement sustainable development strategies in the short and long term. In addition, it hopes to raise awareness of sustainability issues among emerging specialists. Through a number of different qualification measures, the initiative will meet the demands for sustainable development at both a business and an academic level.

"We have continued to notice high potential for development in the areas of energy efficiency and sustainability within the transport and logistics sectors, especially on the employee level. We have to take first steps towards tapping into this potential and back this up with constant support," says Jens-Jochen Roth, project initiator and director of the Steinbeis Innovation Center.

The initiative's central issue is sustainability, a topic it strives to anchor into the minds of participants. The implementation activities, therefore, are oriented closely around the three pillars of sustainability to form qualification triangles during the knowledge transfer process. Each of these consists of one trainee, trainer and instructor. Together, the three form what is called a "sustainability team". These teams will not just receive abridged information on sustainable thinking, but also benefit from insights into the complete spectrum of environmental actions. Basic and more advanced modules form the source of the knowledge transfer. While sustainability, environmental protection in business, environmental financial management and social aspects are the focus of the basic modules, the more advanced modules touch on concrete issues such as energy efficient logistics networks, innovative rail logistics, electromobility, etc. Through this high-power network of cooperation, the business trainers and instructors from participating vocational schools will develop concrete sustainability strategies to serve as models for future projects to the same end.

Five vocational schools and five small to medium-sized logistics companies in Germany are taking part in this initiative.



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Systems.Methods.Added Value.

2013 Steinbeis Engineering Day

An efficient product development process is indispensable in order to move from the idea for a new product past an often complex manufacturing process, and on to successful sale. The sequence of the individual sub-processes has to be coordinated, interactive factors have to be considered and the individual steps must be closely aligned with one another. The 2013 Steinbeis Engineering Study is taking an in-depth look at the criteria for successful product development processes. The study's findings, as well as the resulting best practice examples, were presented at the 2013 Steinbeis Engineering Day. The event took place on April 17, 2013 at the House of Commerce in Stuttgart.

Experts from the Steinbeis Transfer Network, in addition to external speakers, addressed current issues from the area of product development in presentations throughout the event and highlighted how they can be most effectively integrated into everyday work environments.

The aim of the Steinbeis Engineering Day, which took place for the second time since its launch in 2011, is to connect the fields of product engineering, process engineering und project engineering. The event takes place every two years within the scope of the Steinbeis Engineering Forum, the Steinbeis Transfer Network's forum for transfer-oriented research and development. The forum brings parties involved in product development together to discuss current issues related to this core element in successful engineering and to reveal future prospects.

Participation in the Steinbeis Engineering Day is free, but online registration is required.



For more information and to register for the next Engineering Day event online, please visit: www.steinbeis-engineering-tag.de



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Andreas Laich is the deputy business health management officer at Elsässer Filtertechnik.
Photo: © Elsässer Filtertechnik

Fit for the job

A company launches a business health management initiative

By the end of 2013, the Nufingen-based filter specialist Elsässer Filtertechnik plans to become one of the first companies in Germany to gain Occupational Health Management certification under the new DIN SPEC 91020. The new standard stipulates which health-promoting and efficiency-enhancing business mechanisms have to be in place, as well as systems and processes. It also defines how workers can be empowered to engage in health-promoting practices. The filter specialist is being supported in its efforts by the Steinbeis Consulting Center for Operational Health Management.

Elsässer Filtertechnik has more or less considered standard-based quality management systems – and with this, efforts to enhance efficiency and customer satisfaction through high quality standards – as a given, and this at least since 2005. It is also officially certified under ISO 9001:2008. The specialist in filter technology is also committed to environmental management and is distinguished by its responsible approach and long-term thinking, as underscored by its certification under ISO 14001:2004.

The business set up a six-strong steering group in 2012. Its task is to introduce and implement occupational health management (OHM) across the company, designing and planning the best way to comply with requirements laid down by the new DIN SPEC 91020 on behalf of everyone at the firm. The entire project is being advised by Ulrike Niethammer who heads up the Steinbeis Consulting Center for Operational Health Management.

The first phase involved generating awareness and asking fundamental questions. These included: "What does health actually mean, at home and at work?", "Can health be improved at work?", "What can people do for their own health (individual prevention)?", "What structures need putting in place at work to promote health (contextual prevention)?", "How can health-promoting factors like transparency, involvement and meaning be integrated into work processes (salutogenesis and organizational development)?". The steering group soon concluded that implementing OHM would involve a lot more than organizing team sports and encouraging people to make healthier meal choices.

In the second phase, the current working environment at Elsässer Filtertechnik was examined with respect to key health issues. This was carried out by conducting an employee survey, which was designed and organized by the steering group and evaluated by experts at the

Steinbeis Consulting Center for Operational Health Management. The results were encouraging: 30 out of 32 distributed questionnaires were evaluated. The steering group held a workshop to examine, discuss and mull over 134 separate issues, eventually laying down priorities in terms of significance and effectiveness. By the end of the workshop, the group had identified eight health threats and eleven health opportunities with corresponding "areas of action" and a detailed list of next steps.

The results of the survey were also presented to company staff at a separate workshop. After the presentation, the experts at the workplace – the employees themselves – discussed different views, explanations and ideas revolving around five separate issues, all derived from the survey results. The opinions and suggestions made by employees formed a basis for exploring ways to solve each "area of action" in the subsequent OHM process. Measures would also need preparing and implementing.

Meanwhile, the results speak for themselves. Following requests from staff, since the end of last year two staff representatives are elected, one female and one male. Their job will be to mediate in the event of conflict or if there are personal issues between an employee and his or her manager. Eating arrangements were also criticized, so now people at Elsässer can order a free Italian meal two times a week. The joint lunch with colleagues has been extremely well received, and there is lively conversation and a feeling of togetherness.

Staff members also have a say in the arrangement of health-promoting measures at work. For example, personal fitness will be supported through subsidized membership at a local gym which is scheduled to open nearby in September 2013. There are also plans to stage team events at the company, such as an introduction to healthy movement, back exercises, how to lift heavy objects and information on health checks. The next summer festival will also open the door to family members for a hike through the nearby Schönbuch forest followed by an archery event.

There were also calls to do more about communication and management. As a result, there are plans to set up a summer school for managers to provide regular instruction on management skills and leadership qualities. A method based on "collegial consultation principles" will be introduced in management. The aim will be to develop joint solutions to the everyday challenges of business administration, to learn from one another and to derive benefit from the experience of colleagues.

On top of these measures, the project teams are also drafting procedural guidelines which will cover systems used in quality management, environmental management and occupational health management. Goals are being set, based on the eight health threats and eleven health opportunities identified through research. These goals will relate directly to the management handbook, so that later a procedure can be established to identify and assess such criteria.

The next one-day workshop will look at organizational development, communication and management in more detail, which will be captured formally. There is also a need to examine company planning and auditing processes, as well as monitoring, measurement, analysis and evaluation. Afterwards, preparations will be made for an internal audit, complete

with management evaluations and improvements. The employee survey will be repeated and evaluated in September 2013 to check progress and put in place a continuous improvement process. That being said, Elsässer and Ulrike Niethammer already consider the project a complete success.

A discussion with Frank Elsässer

"Everyone benefits from successful projects"

Mr. Elsässer, what was it, in your role as managing director of Elsässer Filtertechnik GmbH, that made you want to invest in occupational health management?

It became clear to me during the first interview with Ulrike Niethammer that the most important assets of my company are not my warehouse or the modern office building, but the value of every individual who works for my company. I should have invested in my employees much earlier.

What business objectives have you set for the OHM process?

All of my 32 employees enjoy my unlimited trust. Most have been working for my company for a very long time – over 75% of them are in their 40s or older. I'd like my employees to still enjoy coming to work for the next 20 years and for them to remain healthy and ready to work.

What benefits do you expect as a result of the introduction of the new DIN standard?

I'd like every single employee to keep thinking about the personal contribution they can make to keeping up their performance and staying healthy. I'm working permanently with the steering group to put the mechanisms in place so that everyone can make a contribution with their professional knowledge and through their individual potential. This will allow us to grow together and make our quality services available to others at all times. We're building a new hall in 2013, and we're already looking for people with the right fit. I'd also encourage other company managers to invest in occupational health management because everyone benefits from successful projects at a healthy company – clients, staff, managers, and the region.



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Certified competence

The Steinbeis consulting certificate

Constantly changing market conditions and growing demands on small and medium-sized enterprises are presenting business consultants with massive challenges. Not only does this new environment demand the competence to identify core problems through analytical approaches and develop practical measures, it also almost requires consultants to become a trusted partner to the business management level in the implementation of these measures. The Steinbeis consulting certificate documents the expert and methodological suitability of a consultant for interested customers.

Small and medium-sized companies are still shy in taking advantage of consultation offerings despite the acute need for these services. One reason for this is the sheer volume of offerings available and the poor transparency over quality of the service providers. It appears anyone can

be a professional business consultant; there are no uniform education and training requirements and no uniform standards.

This is where recognition as a Steinbeis-Certified Consultant comes in. The certificate offers companies assurance for quality-certified consulting. Consultants are given a certificate that sets them apart from others in the field in that it documents their suitability and experience for customers to see. It is the first formal certification of its kind introducing a standardized professional profile for consultants. It acts as an unmistakable reference for high quality consulting services, makes the business more transparent and gives customers a measure of assurance and trust.



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EXI startup bonus

Steinbeis consulting in the pre-startup phase

Steinbeis has been authorized by the Ministry for Finance and Economics in Baden-Württemberg, Germany to carry out pre-startup consultations within the scope of the European Social Fund (ESF) sponsorship program "EXI Startup Bonus – In-depth consulting for company founders during the pre-startup phase".

The aim of the program is to expand on the current offerings for pre-startup consulting and position more (potential) startup founders to benefit from qualified pre-startup consulting. In addition, the program has been designed to deliver more focused consulting for growth-oriented business startups, which may have more acute consulting needs than average startups due to the complex nature of their planned business ventures. Qualified Steinbeis consultants support new founders from initial business conception to successful operation in the development and implemen-

tation of the startup plan. The offerings include free brief consulting sessions and intensive consulting sessions spanning several days for technologically oriented and innovative startups in Baden-Württemberg.

Key consulting areas include:

- Founder character/personality (competence assessment, profile of competence and requirements)
- Motivation for founding the startup
- Business plan
- Strategy and organization
- Marketing and sales
- Finance and management accounting



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Consultants wanted!

Sponsorship through ESF program

The Steinbeis Consulting Center for Business Coaching has been authorized by the Ministry for Finance and Economics in Baden-Württemberg, Germany, to carry out projects within the framework of the European Social Fund (ESF) sponsorship program for "Coaching" and "Qualifications Consulting & Human Resources Development".

Steinbeis consultants can support, consult, and coach companies in the development and implementation of business strategies. To this end, they can apply for subsidies from the German state of Baden-Württemberg.

Sponsorship program for "Coaching"

Coaching measures related to the follow topics are applicable for sponsorship:

- Plans for innovation
- Cooperation
- Reductions in energy consumption

- Demographic change
- Company handovers

Sponsorship for up to 15 work days is available for each of the topics listed above.

Sponsorship program for "Qualifications Consulting & Human Resources Development"

Coaching measures related to the follow topics are applicable for sponsorship:

- Consulting on qualifications and continued professional development (A)
- Systematic human resources development (B)

Each company and branch location can be sponsored in both key areas. Key area A can be sponsored for up to 10 work days; key area B can be sponsored for up to 20 work days.



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Common, network-wide...



...with a common goal: a future-oriented, professional management and human resources development approach!

Networked Human Resources Development

A cost-efficient instrument for employee loyalty and development

3% of German family-run businesses name human resources development as a central area of investment and list this issue as their top priority, even before investment in production, research and development, and sales and marketing. This was discovered as part of a 2010 study carried out by the consulting agency PricewaterhouseCoopers. Small and medium-sized enterprises in particular are often left empty-handed compared to the competition when it comes to finding qualified personnel, with many engineers subsequently choosing larger, better known companies as employers. One reason for this is that smaller businesses tend to invest less in the development of their employees and managers than larger companies. Prof. Dr. Benedikt Hackl, Director of the Steinbeis Consulting Center for Human Capital Management, in cooperation with the Chamber of Industry and Commerce (IHK) in the Lake Constance/Upper Swabia region and the agency Peopledynamix, created a human resources development concept to facilitate affordable access to regional, high quality professional development offers and expertise for small and medium-sized enterprises.

The basic idea is simple: to save on overhead costs for human resources development, businesses pool their demands and training content into a

single, networked solution. This enables, for example, the creation of management development programs that accommodate multiple companies – programs that can be developed, for example, on the basis of a comprehensive demand analysis. This format would allow individual managers in up to ten participating companies to reduce costs in human resources development by 70–80%. Moreover, cross-company learning and high-powered exchange on valuable topics means quality can also be improved. The companies prevent labor piracy across the network since, should an employee leave the company within 2 years following the human resources development offer, he or she must cover the costs incurred by the company. The regional focus of the participants is also key in eliciting savings in transportation costs. And the preparation and selection of the appropriate experts would be facilitated through external "human resources coordination".

In order to determine the demands and exact organization for the region, Benedikt Hackl and his project partners surveyed around 50 small and medium-sized enterprises across a broad range of sectors in the region. The team concluded that the networked human resources development approach is considered useful as a motivational instrument and for preparation of the employee for the next level of management responsibility. The surveyed companies saw great potential in the improvement of methodological competence, best-practice exchange, strengthening of social skills and the creation of a knowledge network for human resources development. Project partners and surveyed companies alike shared the opinion that networked human resources development can lead to significant cost savings. In addition, the approach is perceived as a vehicle for raising quality and enhancing the variety offered in in-house human resources development landscapes.

A pilot version of the networked human resources development approach is planned in the Lake Constance/Upper Swabia and Upper Bavaria regions beginning in 2013. It will involve putting together customized human resources development programs for selected employees at 10 to 15 companies across multiple sectors. The development of the program will be based on company-specific demand analyses. The offerings will include 10 optional modules from the areas of business competencies, management, self-marketing, coaching, experience exchange, and learning incentives for experienced managers. The program is supported by the IHK in the Lake Constance/Upper Swabia region, the Baden-Wuerttemberg Cooperative State University (DHBW) in Ravensburg and the Steinbeis Consulting Center for Human Capital Management in Stuttgart. The participants of all modules will receive certification by the Human Resources Development Association, the DHBW and the IHK.



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Sharing Responsibility

Steinbeis student examines job sharing among managers

At the end of the 1990s, Julia K. Kuark and Hans Ulrich Locher delved into the issue of management-level job sharing in Switzerland. Their research objective was to help develop a management model based on partnership in the form of "job sharing", and to incorporate it into relevant work and management tasks. The concept was successful on all levels at the time, though it didn't result in widespread implementation in the German-speaking world. The shortage of skilled workers in the market today, however, is causing a paradigm change in human resources. Businesses are now introducing a number of part-time models in order to gain qualified management personnel. As part of her bachelor studies in Business Administration at the SHB School of Management and Technology, Susanne Broel looked at how managers use part-time employment models to strike the right balance between work and family life.

During her project competence degree, Broel worked as department head in a regional development bank, where she dealt with the issue of job sharing and whether this management model provided a reasonable balance

between work and private life. This issue is frequently highlighted in the media as "top sharing", and describes the sharing of management tasks between two people. In her project, Susanne Broel surveyed German com-



panies on their familiarity with the model and their willingness to introduce it into their management strategies. She also interviewed "top sharing" pairs.

Broel was interested to see just how much a change in values within German society might affect a business' notion of management. This change in values is reflected, for example, in a transition away from the traditional concept of a male provider and female household organizer, and a shift towards a cooperative educational model with professional and familial equality for men and women, in addition to a constantly growing demand for work-life balance across all demographics. Susanne Broel discovered that more and more human resources departments are giving serious

thought to the possibility of part-time work conditions for managers, and are also evaluating how to apply the job sharing model more effectively.

Yet many managers are somewhat skeptical of this type of management model and question the ability to successfully fulfill the requirements of qualified positions at only part-time capacity. However, it is precisely their perceptions of their own roles in management which make job sharing a viable option in the first place. Conventional management concepts are based on power, clear hierarchical relationships, control, above vs. below, and the uninterrupted, indispensable availability of management personnel at the core of all work procedures. Top sharing would break this convention and replace it with a modern conception of management in which aspects of relative availability, trust among responsible employees, a delegation of decision-making authorities and responsibilities, management through goal setting and teamwork would play a significant role.

In addition to flexible work hours and increasing internationalization, this model can make a contribution to addressing employee needs, raising their motivation and securing their loyalty to the company in both the short and long term. As a result, this type of part-time structure can also have a positive impact on the business' image. And the model can play an important part in overcoming the economic effects of aging within the German population, better integrating younger employees into a company, for example, when older employees move towards retirement.

In an economic landscape marked by intense competition and specialization, know-how, creativity and management performance levels will be decisive factors for a company's success. Their greatest potential lies in their existing employees and managers. The idea of flexible work hours is simple enough; if businesses can develop a job sharing model, they grant employees more individual freedom and managers more time. In doing so, they create added value for themselves and their team: There is a noticeable increase in satisfaction and motivation among managers and specialists, and, in turn, they come to identify more strongly with their company with positive effects on their performance.

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Roland Hoffmann

Better together – but how?

Steinbeis student explains reorganization across company locations

The relevance of change management, or the planning, management and control of change processes within an organization, has gained in significance over the past several years. Indeed, merger and acquisition transactions frequently necessitate business reorganization. Singulus Technologies, the market leader for optical disc production lines and provider of vacuum coating machines for the semiconductor field, expanded its business activities into the photovoltaic market with the acquisition of Stangl Semiconductor Equipment in 2007. Fabian Koock, graduate of Steinbeis University Berlin (SHB) and current consultant at Q_PERIOR, was managing the resulting alignment of business procedures across various locations with the objective of helping the company achieve group certification according to ISO standard 9001:2008 for quality management.

Two organizations, two business cultures, two process models, one goal: getting better together. This slogan was the basis of an initiative to bring both businesses to their common goal, but how? In addition to the complex demands for project organization, the major challenge lay in transforming the affected parties into participants in the change process, a fundamental task of change management. In fact, technical demands such as the creation of process models, implementation of ISO 900-relevant requirements, and the development of process management software took a backseat. The acceptance of project objectives within the company and its influence on the necessary level of involvement from employees proved far more crucial to the success of the change process.

Fabian Koock's studies helped him find a strategy which prioritized the essential aspects: A strategy strongly driven by customers together with targeted measures in the area of project marketing should secure acceptance and customer involvement in the company.

To this end, Koock implemented four key measures during the project. After defining the various customer groups involved in the project, he was able to determine the relevance of each group for the project. He then focused on individual customer groups classified according to project phase.

Afterwards, customer demands were analyzed from the perspective of the project itself, and project objectives were prioritized based on customer group. The results of both analyses formed the basis for a call for action. Moreover, the customer demand analysis shed light on those objectives that were important for specific customer groups and, thus, which were to be especially suitable for the internal marketing of the project.

Using the call for action derived from the analysis, a project customer strategy was developed for each group. The results of the customer

analysis also provided interesting insights into the opportunities and risks involved in implementation of individual strategies.

The phase-oriented prioritization of project customers defined the customer strategies that should be implemented at given stages of the project. For effective implementation of the individual strategies, Koock used an adjusted marketing mix made up of product, pricing, communications and distribution policies. It also offered appropriate training and specialized support for the individual customer groups.

This strategic project approach ensured that the needed level of acceptance among project customers was achieved. Affected parties were turned into participants, even decision-makers responsible for developing and driving the results. The project demonstrated that change management has to be more than just an aspect of project organization. The most important success factor for projects undergoing change is, by far, the effective mobilization of affected parties and winning their commitment. The study points to a high probability that change projects will fail without the right change management strategies in place.



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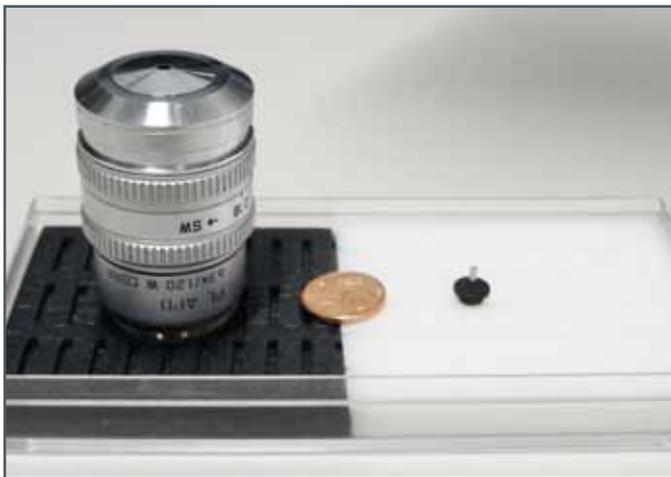
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Shedding new light on...

Minimally invasive endomicroscopy and diagnostics

Modern light microscopy enables imaging of biological structures down to the sub-micrometer range. The samples can thus remain in non-hostile environments – a decisive advantage in the research of processes in living cells, organs and organisms. Non-linear contrasting processes such as multi-photon fluorescence or optical frequency amplification are particularly interesting for biomedical applications because highly contrasting signals can be created without the need for coloring the samples first. Two Steinbeis centers are currently conducting research with these techniques.

The techniques can be used in medical diagnostics, but there is a hitch: The light reaches a maximum depth of only one millimeter and the lens cannot penetrate the tissue under standard design and assembly. As a result, it is impossible to achieve optical imaging in deeper layers of the



body. Rod-shaped gradient-index lens systems of up to 0.3 mm in diameter are shedding light on new possibilities. Here the focusing of light is not based on polished, spherical interfaces with discrete beam deflection as in conventional lenses, but on a glass material with a spatially varying refraction index. The light inside the rod lens is continually refracted.

But how effective are these systems in biomedical applications, particularly in the resolution of signal levels? In a direct system comparison – “classic vs. GRIN” – the experts at the Steinbeis Transfer Center for Medical Biophysics and at the Steinbeis Research Center for Medical Technology and Biotechnology conducted tests on “second harmonic” imaging in non-colored skin and muscle samples. This procedure is particularly suitable for system tests in non-linear microscopy on account of its physical properties. The result: In the GRIN system, the signal level achieves on average 25%, with only a factor 2 loss through imaging. An excellent result, especially when the form factors of both technologies are compared. The Steinbeis team is sure that the development of minimally invasive endomicroscopy and diagnostics has only just begun.



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MINT makes it happen

Motivating women to take on technical professions

A number of very successful businesses are located in the Schwarzwald-Baar region in the south of Baden-Wuerttemberg, Germany. To remain successful in the future, they need an innovative and creative workforce. These types of employees, however, are getting increasingly difficult to find and hang on to. Young women offer up a world of potential – if only they could be tempted by jobs in trades, technical/industrial jobs or positions in the natural sciences. The Steinbeis Innovation Center Know-how + Transfer wants to attract more young ladies to these areas.

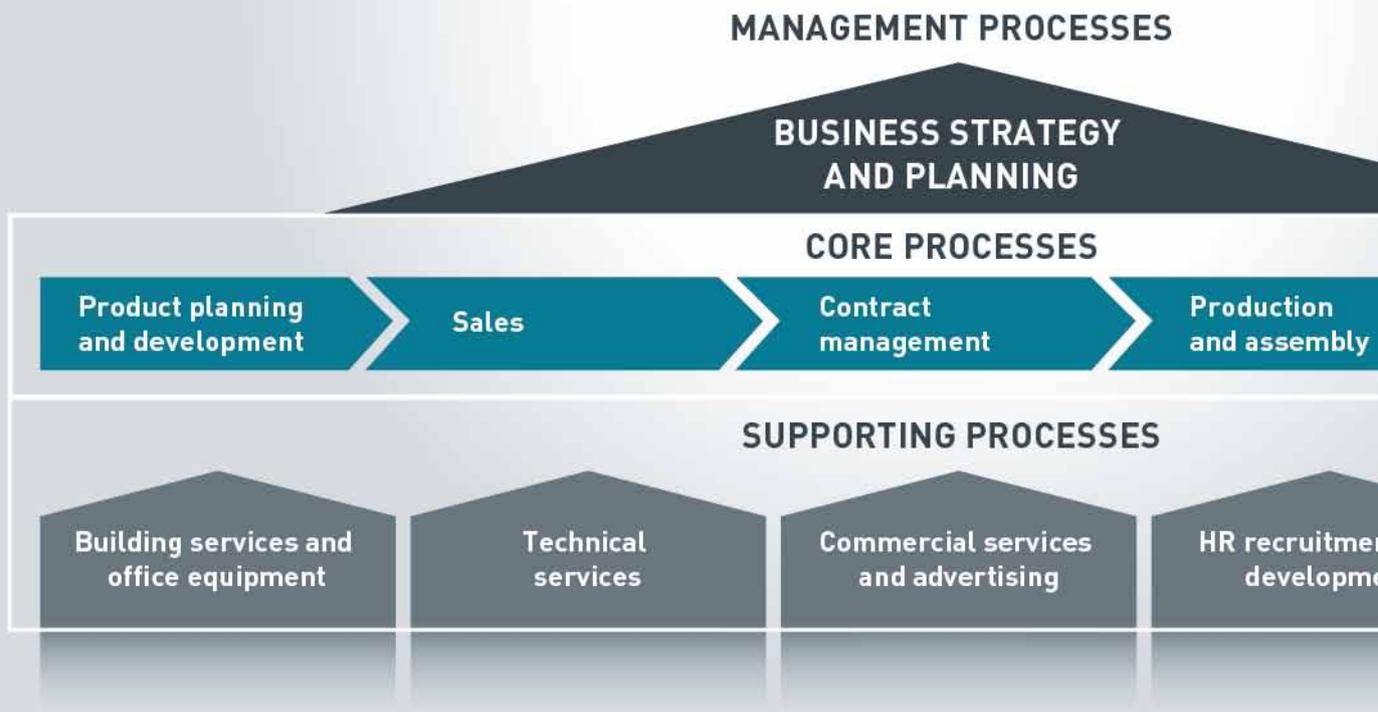
That's why it established the “MINT in” project together with the Trade Association Regional Center (Gewerbeverband Oberzentrum) in Villingen-Schwenningen. The project is intended to attract female specialists in the district of Schwarzwald-Baar. The aim of the initiative is to increase the number of female school graduates in the region interested in “MINT”: mathematics, information technology, natural sciences, or technical engineering. They also hope to get more young women interested in learning a trade. The goal is to achieve an increase of 10% by 2014. To inspire girls and young women to take on professions in

these areas, they are introduced to trade groups and MINT companies. It gives the girls a chance to discover more about the fields and their personal suitability for MINT professions. At the same time, companies have the opportunity to vet potential talent among the students. In addition, new structures and business concepts, which would be of interest to young female academics and school graduates, are developed for participating companies. This is supported through a mentoring program in the individual companies.

The project is being sponsored within the scope of the national initiative for “Equality for Women in Business”. The program was developed by the German Federal Ministry of Labor and Social Affairs (BMAS) together with the National Association of German Employer Associations (BDA) and the German Confederation of Trade Unions (DGB). The program is funded by BMAS and the European Social Fund (ESF).



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Business service providers: key partners to SME business

B2B day in the north German region of Oldenburger Münsterland

Several hundred business service providers are based in the region of Oldenburger Münsterland in the Federal state of Lower Saxony. Their focus spans from automation technology to temporary personnel services. They are crucial partners to local businesses and thus central to the success of the regional economy. A business-to-business day on April 26, in Emstek took a detailed look at the services offered in Oldenburger Münsterland. The aim of the event: to promote networking between service providers and small and medium-sized businesses in the area. The event was organized by the Oldenburger Münsterland Steinbeis Transfer Center.

Tight cost control is a key success factor for the long-term existence and economic success of medium-sized enterprises. To manage costs efficiently, the organization has to be kept lean, and procedures in administration and production have to run like clockwork. Tasks beyond the activities considered core to a business, or tasks only carried out infrequently, can thus only be allocated limited resources in terms of specialist expertise or equipment. Unlike larger companies, which can afford to have specialist departments to fulfill "auxiliary" processes, medium-sized enterprises typically have to rely on business service providers. These third-party companies are expected to be quick, to know their business, and to provide inexpensive input.

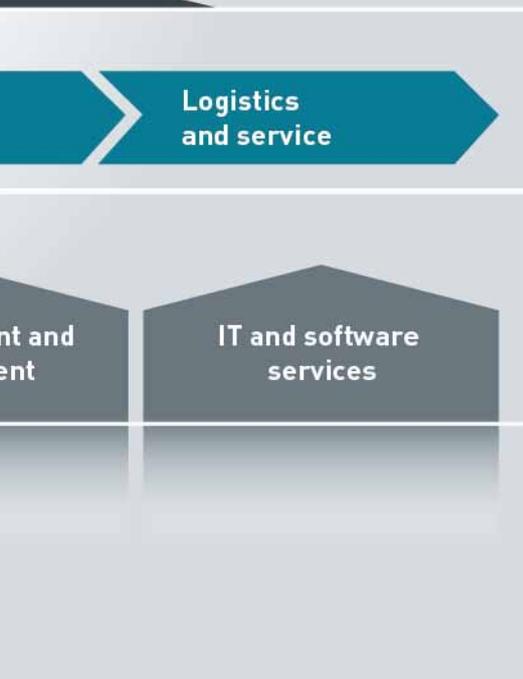
Over the past few decades, the region of Oldenburger Münsterland – the area of northwest Germany covered by the Oldenburger Münsterland Steinbeis Transfer Center (TZOM) – has witnessed a significant concentration of business service providers setting up their companies around the growing number of medium-sized enterprises in the area. These service providers are making a significant contribution to the success of the local economy. Their facilities and skills base are closely geared to the needs of local companies, but the more specialist their service offering, the more restricted the scope of potential demand tends to be. To make proper use of human and technical resources, and move forward as a business (and thus stay viable as a business), many service providers have to gradually extend their area of operation and their portfolio of services. Increasingly, doing business in the heavily industrialized Ruhr

Valley, Berlin, or even southern Germany is no longer the exception but the rule.

Slowly but surely, this is leading to a watering down of the competitive advantage gained through specialization and geographical proximity. Coming in the opposite direction, service providers from other parts of Germany are now being hired in Oldenburger Münsterland. Free competition is the way forward and it is important, but it only stands to reason that that local service providers should at least have a home advantage – they have many years of industry experience, they know the regional idiosyncrasies, and, after all, they are practically on the doorstep!

Hermann Blanke, who heads up the TZOM, has been working on technology transfer in the region for over two decades and is involved in hundreds of meetings with local companies each year. Commenting on the situation, he says: "It defies all logic why, for example, a company from Bavaria should win a contract to install a new computer system while none of the local suppliers are even invited to tender. In all probability, the actual services on offer are not well known enough."

As a result, for the first time, a number of key players in the area have undertaken to form a consortium to showcase the wide variety of high-standard business service providers in Oldenburger Münsterland and speak with a common voice. The aim is to raise their profile among manufacturing companies, the manual trades, and agricultural busines-



ses. Overall, the goal is to foster more networking between businesses in the region. Service providers and local companies should talk to one another, get to know each other, and compare notes on business requirements and actual offerings. In the long term, this should solidify and build added value, know-how, and employment opportunities in the area. The initiative, which has been called the Business Offensive Oldenburger Münsterland, or boom for short, is being backed by the economic development departments of the district of Cloppenburg and Vechta, the three big business zones in the area (c-Port, ecopark, and Niedersachsenpark), the not-for-profit Oldenburger Münsterland association, and the Oldenburger Münsterland Steinbeis Transfer Center. The initiative is also receiving funding from the regional savings bank Landessparkasse zu Oldenburg (LzO).

As part of the initiative, the project partners were organizing a large-scale B2B event on Friday, April 26, 2013. The venue for the event was the ecopark near Emstek just off the A1 autobahn (nicknamed the Hansa Line by locals). The day included a services trade show, a regional congress and an evening event. A variety of business service providers from the Oldenburger Münsterland region showcased their portfolio to industry specialists and answer questions. There was a strong turnout among people working in purchasing and sales, as well as CTOs and commercial officers, business owners, and CEOs of local companies and agricultural businesses. The aim was to accelerate the process of forging regional business contacts and make networking more efficient. In the afternoon there was a congress on "sustainability." A number of leading figures from the worlds of business and science gave talks outlining their stance on the meaning of sustainable economies in environmental, economic, and social terms. These were followed by Q&A sessions to hear the opinions of the audience and their questions. At the top-rate evening event, exhibitors and visitors had another opportunity to engage in conversation,

meet acquaintances, and make new friends. There was also a supporting program and premium catering arrangements. The event was highly entertaining and very congenial.

Oldenburger Münsterland Steinbeis Transfer Center

The Oldenburger Münsterland Steinbeis Transfer Center enables businesses and organizations in the Oldenburger Münsterland region to gain access to the entire spectrum of services offered by the Steinbeis Foundation. Steinbeis experts from the entire network are available to provide their services.

- General advice
 - Help with:
 - Structuring projects and issues with business startups
 - Submitting funding applications
 - Application of scientific knowledge
 - Brokering of:
 - Contacts interested in business collaboration
 - Contacts at research and development institutions
 - Business information
- Technology consulting from experts
 - Problem analysis and possible solutions in the following areas:
 - The entire spectrum of technology application
 - Business management
 - Design
 - Technology and market assessment
 - Product development and design applications
 - Diversification strategies
- Applied research and development
 - Selection and definition of R&D projects
 - Project planning and management
 - R&D projects on behalf of companies



Dr.-Ing. Roland Larek

Hermann Blanke

Steinbeis Transfer Center Oldenburger Münsterland (Vechta and Cloppenburg)

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New centers in the Steinbeis Network

The Steinbeis Network comprises around 900 Steinbeis enterprises spanning all fields of technology and management. Depending on the nature of their work, these may be Transfer Centers, Consulting Centers, Innovation Centers, Research Centers, Transfer Institutes or separate legal entities. The following new Steinbeis enterprises have been founded since October 2012:

Kornal-Münchingen



Communication and information systems

Management: Dipl.-Ing. Hans Josef Stegers |
E-mail: su1663@stw.de

Services

- Planning, concept development and consulting in the field of information and communication technology services and systems, especially including
 - launches, analysis, evaluation and commissioning of new services and technologies
 - the analysis, evaluation and fulfillment of requirements
 - management of and support with development projects
 - Project management

Tuttlingen



Applied Mathematics and Algorithms

Management: Prof. Dr. Sebastian Dörn | E-mail: su1664@stw.de

Services

- Employee training and seminars
- Consulting
- Applied research and development

Göppingen



Processes in Motion

Management: Prof. Dr. Ben Marx, Prof. Dr. Christian Cseh
E-mail: su1665@stw.de

Services

- Concept development, optimization and development of business processes
- Support with the implementation and launch of IT projects
- Consulting and technical development of IT systems
- Project management

Dresden



Development, Construction and Manufacture of Plastics

Management: Prof. Dr.-Ing. Lars Frommann, Werner Weißbach
E-mail: su1666@stw.de

Services

- Consulting in welding and joining, dimensioning and construction of components and machinery
- Comprehensive consulting and implementation of projects in the areas of polymer materials, plastic processing, manufacturing tech-

nology, mechanical engineering, research and science management, and the acquisition of funding

- Development and manufacture of plastic machinery and components
- Process development

Stuttgart



Strategic Skills Management

Management: Dipl.-Wirt.-Ing. (FH) Markus Riehl |
E-mail: su1667@stw.de

Services

- Strategy development and consulting of SMEs with respect to marketing and sales
- Measurable, skills-oriented individual and group coaching sessions
- Workshops and seminars for strengths-oriented company development
- Coaching for startups with an emphasis on entrepreneurial characteristics

Waiblingen



Media Management

Management: Prof. Uwe Swoboda | E-mail: su1668@stw.de

Services

- Communications concepts
- Empirical studies
- Carrying out of media-related research projects
- Examination of social media behavior

Ettenheim



Leadership in Science and Education

Management: Prof. Dr. Thomas Breyer-Mayländer |
E-mail: su1669@stw.de

Services

- Organizational and human resources development for universities, schools and other educational institutions
- Strategy development for universities and schools
- Assistance during the change management process (consulting, training, coaching)
- Support on questions related to leadership culture, style and situations (conflicts, etc.)

Nordheim



Social Media Management

Management: Prof. Dr. Sonja Salmen | E-mail: su1670@stw.de

Services

- Social media management consulting
- Social media training courses for decision makers and company directors (seminars/in-house workshops)
- Social talent management consulting
- Management of social media projects for medium-sized businesses

Oederan



Conveyor technology/intralogistics

Management: Prof. Dr.-Ing. Klaus Nendel |
E-mail: su1671@stw.de

Services

- Development and design of conveyor technology and its basic elements
- Tribological and mechanical analysis/parameter identification
- Dimensioning of conveyor systems, particularly traction and suspension mechanisms
- Materials selection for conveyor systems

Immenhausen



Kassel Business School

Management: Dipl.-Ing. (BA) Carsten Stehle, MBA |
E-mail: su1672@stw.de

Services

- Management seminars
- Bachelor's programs
- Master's programs
- Project consulting

Reutlingen



Digital Factory, PLM, NC Technology

Management: Prof. Dr.-Ing. Thomas Reibetanz |
E-mail: su1673@stw.de

Services

- Consulting
- Project management/support
- Applied research and development
- Calculations
- Trainings

Esslingen



Innovative Production Engineering (IP)

Management: Prof. Dr.-Ing. (IWE) Martin Greitmann
E-mail: su1674@stw.de

Services

- Technology transfer in the field of production engineering with a focus on joining technology
- Testing the suitability of materials for joining and welding

- Process diagnostics and numerical process simulations
- Sample welding/prototype production, consulting, training

Stuttgart



Skills development and technical consulting

Management: Prof. Dr. Uwe Zimmermann, Dipl.-Phys. Jan Peter Gehrke | E-mail: su1675@stw.de

Services

- Preparatory and prerequisite courses for mathematics and physics
- Development and invigilation of entrance exams and aptitude tests (mathematics/physics)
- Supplementary company courses
- Industrial consulting in the field of environmental sensors for automobiles and electro-mobility

Sao Paulo



Steinbeis Consulting Services – Brazil

Management: Dipl.-Ing. Diego Nascimento, M.A., Dipl.-Ing. Andreas Nascimento, M.Sc. | E-mail: su1676@stw.de

Services

- Consulting for companies in process of expansion in Brazil and Germany.
- Consulting and development of projects for energetic (oil and gas, presalt) sector.
- Organization of international fairs, conferences and workshops.
- Support for German companies for development of PPP in Brazil.
- Intermediation in recruitment of professionals for the Brazilian and German market.
- Development of international partnerships and exchange programs for the public and private sector.
- Reception of delegations and organization of business roundtables for German and Brazilian entrepreneurs.

Lottstetten-Nack



Geoenergy and Reservoir Technology

Management: Dr. Eva Schill | E-mail: su1677@stw.de

Services

- Technology transfer in the development of industrial geothermal projects
- Technology development involving non-conventional geothermal energy:
 - Development of exploration concepts for investigating fractured and confined reservoirs of non-conventional geothermal resources: integration of 3D geology, geophysical and geochemical processes
 - Development of methods for determining reservoir parameters from geophysical processes

- Radioactivity and geochemistry of outages at power stations
- Economic viability
- Feasibility studies involving non-conventional geothermal resources
- Continuing professional development: reservoir exploration, geothermal energy, non-conventional hydrocarbons

Freiburg



Business Establishment and Development

Management: Johannes Merkel | E-mail: su1678@stw.de

Services

- Consultation and Coaching for startups and freelancers
 - Developing tailored services for the right customers
 - Developing and adapting practice-oriented strategies and business plans
 - Identifying potential customers and exploring markets
 - Taking advantage of individual opportunities for funding/financing
 - Simplifying the understanding and management of finances and key figures
 - Interacting with financial authorities in a professional manner
- Network and Cooperation for startups and freelancers
 - Identifying the right customers, multipliers and partners
 - For communal, regional and supra-regional parties
 - Developing and implementing target group-oriented, issue-specific events and regional models of cooperation with economic partners and districts, universities, clusters as well as employment agencies and job centers
 - Cooperation with MONEX Baden Wuerttemberg for microfinancing
 - For transnational actors and partnerships within the EU
 - Transnational networking and cooperation; implementation of regional projects in alignment with Europe's 2020 Strategy

Lich



Institute of Marketing, Media and Management

Management: Prof. Dr. Andrea Honal | E-mail: su1679@stw.de

Services

- Consulting of companies, public bodies and other institutions
- Practice-based research
- Studies, analysis and expert reports
- Continuous professional development and staff training (courses)
- Speeches, seminars and workshops

Heidelberg



German Center of Excellence in Music Therapy (G-CENT)

Management: Dr. Heike Argstatter | E-mail: su1680@stw.de

Services

- Vocational Research: quality management in work related to clinical and music therapy (preparation stage for Steinbeis certification course)

- Vocational Training: employee development for diagnosis-specific treatment methods (preparation stage for Steinbeis certification courses)
- Postgraduate Coaching: PhD programs - clinics - branches - research - career planning

Neumarkt



Institute for Nursing Theory

Management: Diplom-Supervisor Peter Bernsdorf, Prof. Dr. med. habil. Alexander Schuh, Dr. Franz Sedlak, MBA |
E-mail: su1682@stw.de

Services

- Professional training in the field of nursing
- Dual qualification in nursing and a higher education degree
- Specialized training in anesthesia/intensive care (German Hospital Association)
- Intensive care practitioner, Steinbeis Transfer Institute Berlin
- Dual studies program Nursing + Bachelor of Nursing

Rostock



Research and Development in Body Movement and Training (German: FEBT)

Management: Prof. Dr. habil. Sven Bruhn | E-mail: su1683@stw.de

Services

- Motion analysis in prevention, rehabilitation and high-performance athletics
- Performance diagnostics in prevention, rehabilitation and high-performance athletics
- Development and evaluation of motion-based programs designed to improve motor skills
- Development and evaluation of motion-based programs designed to enhance performance
- Evaluation of the effects of technologies related to body movement
- Transfer research and consulting in the development of technologies related to body movement
- Development of new measuring processes
- Consulting on questions regarding the science of training and body movement
- Further education events

Stuttgart



Education, Technology, Economics - ETE

Management: Prof. Dr. Dr. Dr. h. c. Eva Marie Haberfellner
E-mail: su1684@stw.de

Services

Consulting of ministries on the topics of education and continued professional development.

Breaking New Ground for Future Growth

Steinbeis expands into Ilmenau

Prof. Dr.-Ing. habil. Eberhard Kallenbach (Steinbeis), Univ.-Prof. Dr.-Ing. habil. Prof. h. c. Peter Kurtz (TU Ilmenau), Univ.-Prof. Dr.-Ing. habil. Gerhard Linß (Steinbeis), Jörg Fleischer (Goldbeck), Prof. Dr. Dr. h.c. mult. Johann Löhn (Steinbeis) (from left to right)



Last year, just one day before the German reunification holiday, selected guests met near the Technical University in Ilmenau for a groundbreaking ceremony to kick off the construction of the city's second Steinbeis building. The new structure will provide more than 1,000 square meters of space for future transfer projects. But that wasn't the only reason to celebrate: Several Steinbeis enterprises gathered in Ilmenau that same day to mark the anniversary of their founding.

The new Steinbeis House should be ready for its first occupants beginning late summer of this year. The building promises superb working conditions for the employees of the Steinbeis Transfer Center for Quality Assurance and Image Processing. The construction project lays the foundation for further Steinbeis growth in Ilmenau, where successful technology transfer has been taking place for 20 years: Both the Steinbeis Transfer Center for Quality Assurance and Image Processing as well as the Steinbeis Transfer Center for Mechatronics looked back on two successful decades of technology transfer work at the opening of construction in Ilmenau. The company innomas and the Steinbeis Transfer Center for Automotive Engineering are only half as old but no less successful. And Professor Dr. Dr. h. c. mult. Johann Löhn made sure to underscore the outstanding contributions of all the Ilmenau-based Steinbeis founders in his celebratory speech.

Professor Dr. rer. nat. habil. Peter Scharff, Vice Chancellor of the Technical University in Ilmenau, highlighted the fact that universities deal with the entire chain of information, from basic research to practical

application. In his view, completing the chain of technology transfer – that is, transferring knowledge directly to businesses – requires partners like the Steinbeis Transfer Centers. "A truly successful professor sees to it that his research findings get implemented into real, marketable products," said Scharff. Professor Dr. Gerhard Linß, Director of the Steinbeis Transfer Center for Quality Assurance and Image Processing, praised the excellent collaborative relationship shared with the university's vice chancellor and attested to the success of the Steinbeis transfer concept. "The synergy effects that technology transfer creates between science and business will push the businesses in this region forward in the future," said Linß.



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TAG DER LOGISTIK

18. April 2013

Logistics Day

Insights into the project work of logistics consultants

For the second year in a row, the Steinbeis Transfer Center for Logistics and Factory Planning took part in the national "Logistics Day" with a series of expert presentations. Under the theme "Logistics makes it possible", local businesses and an interested audience of trade visitors were invited to meet in Göppingen on April 18, 2013, to learn more about current projects and trends in logistics.

Building on the success of last year's event, center director Dietmar Ausländer and a number of other specialists and cooperative partners

from the Steinbeis Network gave practical insights and valuable stimulation for participants from the field of logistics. The event took place as part of an initiative of the German National Association for Logistics (BVL). Presentations on lean production concepts, scenario planning for logistics networks, sustainability in logistics planning, implementation of lean management strategies in logistics and factory/office development planning made the event worthwhile and informative. A get-together following the presentations offered yet another platform for more in-depth discussion and networking.



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Factory Planning (Göppingen)
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Tastes Like a Winner!

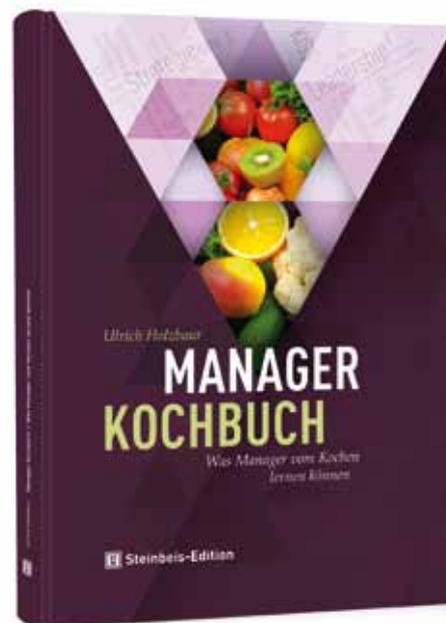
Manager Cookbook serves aims of the United Nations World Decade "Education for Sustainable Development"

Not even completed yet, and already getting stellar praise from Berlin and Bonn: The German Commission for UNESCO's World Decade "Education for Sustainable Development" recognized Prof. Dr. Ulrich Holzbaur for his "The Manager's Cookbook", which was featured in Steinbeis Edition.

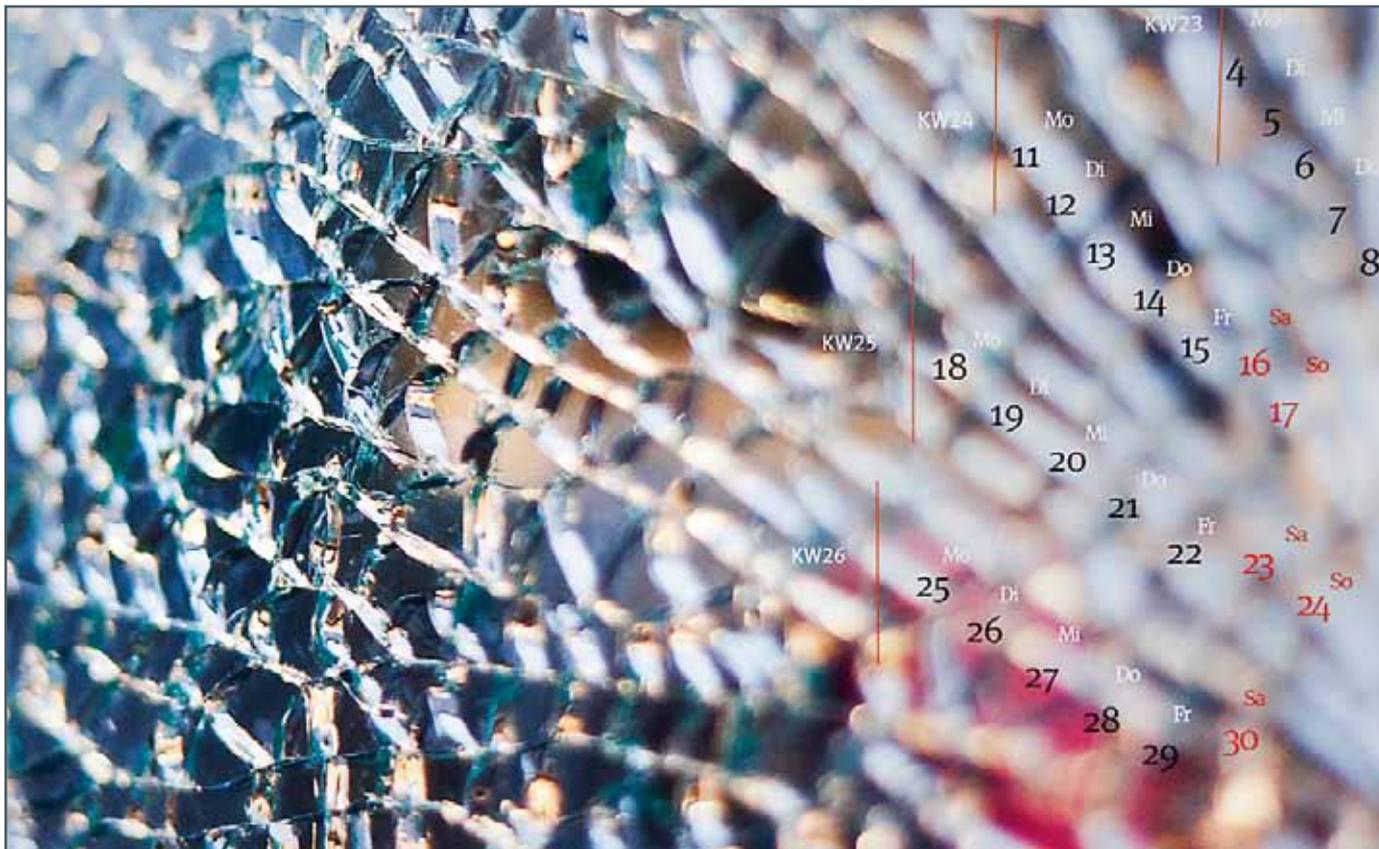
The Manager's Cookbook compares essential aspects of management and cooking based on the idea: What can managers learn from cooking? The book purposely doesn't contain a traditional collection of recipes, since "Recipes are no guarantee for success," according to Ulrich Holzbaur. "You need an understanding of the principles behind it." In the chapters management and cooking, science, project-centered approaches, results-centered approaches and sustainability, Holzbaur digs into the "secret ingredients" in management and cooking.

The book can be considered a significant contribution to "Education for Sustainable Development" in that it highlights the important role long-term thinking and sensible usage of resources play in both management and cooking. And the knowledge of these connections can make a huge difference when it comes to shaping future strategies – or to borrow the motto of the UN's Agenda 21 action plans: "Think global and cook local." The cookbook hopes to provide valuable information not just to the cooking manager or the managing cook, but also to anyone interested in learning more about management, cooking and the world. Indeed, management and cooking both require a solid skills basis and creative execution of ideas. The year in which the Manager's Cookbook was published was proclaimed the "Year of Nutrition" as part of the United Nations World Decade "Education for Sustainable Development" – and it certainly does its part to address the objectives of the United

Nations with contributions from the fields of nutrition and management which both offer solutions to future problems and help shape future sustainability strategies. Due to its impact, the book was recognized by the German UNESCO Commission as part of the World Decade program. It can be obtained through Steinbeis Edition starting in April (ISBN 978-3-943356-35-9).



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Excellent Network

2012 GOOD DESIGN Award Chicago

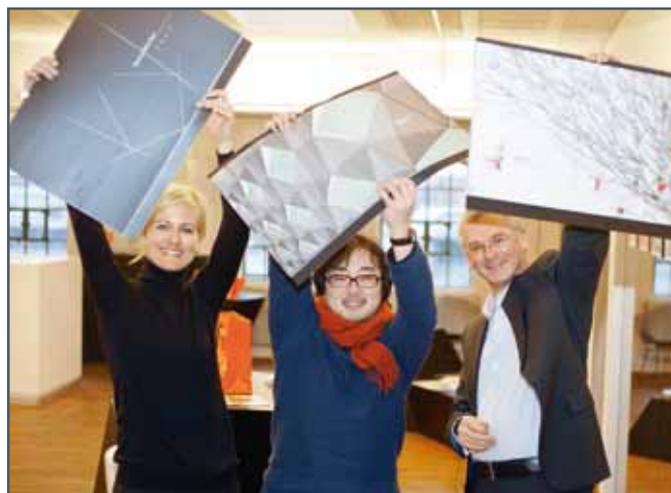
The Steinbeis Transfer Center Institute for Integrated Design (i/i/d) in Bremen and print and media partner Müller Ditzten, received the sought-after international GOOD DESIGN Award Chicago for their yearly calendar "Netzwerke 2012". Conceived and designed by i/i/d and implemented by the printer, paper supplier Hansa was also on board the project.

It all started when the printer, the paper wholesaler and the creative agency joined forces to develop a calendar. A calendar? Not the most original idea, you might think. But through design (sketches and layouts: Detlef Rahe, Melanie Köhler, Shushi Li), styling, photography, visual selection, typography, 12 types of paper and 12 finishing techniques that prove the skill of each of the partners, the calendar gains its uniqueness.

The topic of networks is in the air. It is considered the key to influence, success and personal advancement. Of course, with so much networking going on, the soul of business – real work, true friendships, pure values – are being threatened. The calendar takes the word "network" literally, presenting real networks and structures seen and photographed at different places in the world. Worldwide networks, so to speak.

The GOOD DESIGN Award Chicago is the oldest and one of the most well-known and esteemed design awards in the world. It is granted annually through the Chicago Athenaeum Museum of Architecture and Design in cooperation with the European Centre for Architecture, Art, Design and Urban Studies. Since 1950, the award has been given each

year for contributions in the categories of design and innovation, sustainability, creativity, branding, ecologically responsible design, human factors, materials, technology, graphic arts, packaging and universal design.



Thrilled about their award: Melanie J. Köhler, Shushi Li, Prof. Detlef Rahe (from left to right)



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Alan Merrigan

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New releases from Steinbeis-Edition

Steinbeis-Edition, the publishing arm of the Steinbeis Foundation, regularly publishes works reflecting the scope of the Steinbeis Network's expertise. All titles can be easily ordered via our online shop at www.steinbeis-edition.de.



Status Quo – Opportunities and Challenges
Proceedings of the 2012 Symposium
Andreas Seufert, Peter Lehmann, Klaus
Freyburger, Thomas Becker (Publ.)

2013 | Paperback, B&W | 138 pages, German/English
ISBN 978-3-943356-44-1

About the publishers

Prof. Dr.-Ing. Peter Lehmann and Prof. Dr. Andreas Seufert are directors of the Steinbeis Transfer Institute of Business Intelligence. Prof. Dr. Klaus Freyburger and Prof. Dr. Thomas Becker are part-time lecturers at Steinbeis University Berlin (SHB).



More online



Cross-ETP Research and Innovation Roadmap
for the Energy Efficiency in Building
M. Cioffi, F. di Genaro, S. Zinetti (Lead authors)
| L. Bax, S. Boudjabeur, L. Bourdeau, C. Dankl,
E. Herrmann, F. Jadwiga, J. Oakey, M. Ccalia,
J. Elvnert

2013 | Paperback, color | 102 pages, English
ISBN 978-3-943356-37-3

About the Project

The strategic objective of the project is to establish effective coordination of European technology platforms and major initiatives whose strategic research agendas (SRAs) and activities address energy efficiency in building environments from an NMP perspective, and also to identify and review their needs in terms of long-term research and innovation, thus accelerating the implementation of sustainable solutions by ad-

ressing non-technological barriers and gaps at a program level. The Building Up Consortium, which is coordinated by the Centre Scientifique et Technique du Bâtiment (at the chair of the European Construction Technology Platform, or ECTP), has ensured active involvement of a wide spectrum of stakeholders working in the energy efficiency of building environments, despite coming from different technology sectors (e.g. steel, chemistry, textiles, materials development, forest-based products, water treatments, renewable energy, etc.). Indeed, Building Up brought together the know-how and expertise from its eleven partners, covering various technology sectors.



More online



Dealing with Dementia Patients
A Guidebook for Legal Guardians,
Relatives and Institutions
Gottfried Binner
Publication Series on Legal Guardianship
and Custody | Volume 1
Norbert Ahrend, Ramona Groneberg,
Bärbel Held (Publ.)

2012 | Paperback, B&W | 73 pages, German
ISBN 978-3-943356-41-0

About the author

Gottfried Binner studied Public Management while working full-time as a legal supervisor at the Academy of Public Administration and Law at Steinbeis University Berlin. He specialized in "Supervision and Custody." He finished his degree in 2011 culminating in a Bachelor of Arts. For his final diploma, he looked at the issue of "Dementia Patients with Respect to Legal Guardianship."



More online



Digital Factory Operating Reference (DiFOR)
Integrated Digital Planning Methods in
Globally Distributed Planning Environments
Mathias Engel

2012 | Paperback, B&W | 240 pages, German
ISBN 978-3-943356-29-8

About the author

Mathias Engel studied Business Engineering at Esslingen University of Applied Sciences. Before entering a doctoral program at Daimler AG, he was head of a digital factory for a consulting company. Engel is the founder of the Digital Factory working group within the Steinbeis Technology Group on Xing, the German online business portal. He also

works as a part-time lecture for Esslingen University. He gained his doctorate in 2012 at Steinbeis University Berlin.



More online



A Method for Implementing Digital Factory Principles in a Production Planning Network
Tobias Riegmann

2012 | Paperback, B&W | 252 pages, German
ISBN 978-3-943356-30-4

About the author

After completing an apprenticeship as an industrial mechanic, Tobias Riegmann studied business engineering at Pforzheim University of Applied Science. He currently works in the strategy department of a leading automotive company. He previously worked at the same company as a doctoral student and trainee. He gained his doctorate in 2012 at Steinbeis University Berlin.



More online



The SCMT K.I.S.S. Method
The Slightly Different Approach to Self Management – a Way to "Internal Satisfaction"
Walter Beck | Patricia Kuppinger-Beck,
Walter Beck, Claudius Borer (Publ.)

2012 | Paperback, color | 58 pages, German/English
ISBN 978-3-943356-36-6

About the author

Dr. Walter Beck played a key role in the founding of Steinbeis University Berlin (SHB) and was one of the founding directors of the limited company Steinbeis-Hochschule-Berlin GmbH as well as one of the founding directors of the first Steinbeis Transfer Institute (STI). Since then, he has founded several STIs at the SHB, for which he performs a variety of director and management roles. He still serves as the director of the Steinbeis Center of Management and Technology, which was founded in 2009.



More online



Agile Teams.
Effective Task and Project Management
Jörg Friedrich

2013 | Paperback, B&W | 136 pages, German
ISBN 978-3-943356-39-7
Also available through ePub: ISBN 978-3-943356-40-3

About the author

Professor Dr. Jörg Friedrich founded the Steinbeis Transfer Center for Task Management Solutions in 2005, which he still heads up today. He is the key driver of the development of Trackplus, a tool for managing projects and work tasks.



More online (book)



More online (ePub)



Business meeting points.
Our Path to Success –
Students and Managers Give their Personal Accounts
Alb-Schwarzwald Business School (Publ.)

2013 | Paperback, color | 150 pages, German
ISBN 978-3-943356-38-0

About the publisher

Alb-Schwarzwald Business School was founded in 2004 as an institute belonging to Steinbeis University Berlin in the Black Forest region of Alb-Schwarzwald. Its aim was to boost the success of managers and entrepreneurs.



More online



Yvonne Hübner
Steinbeis-Edition (Stuttgart)
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Steinbeis is an international service provider in tangible, implementation-oriented knowledge and technology transfer. The Steinbeis Transfer Network is made up of about 900 Steinbeis Enterprises and project partners in 50 countries. Specialized in chosen areas, Steinbeis Enterprises' portfolio of services covers consulting; research and development; training and employee development as well as evaluation and expert reports for every sector of technology and management. Steinbeis Enterprises are frequently based at research institutions, universities and colleges, which are constituting the Network's primary sources of expertise. The Steinbeis Network comprises around 5,800 experts committed to practical transfer between academia and industry. Founded in 1971, the Steinbeis-Stiftung is the umbrella organization of the Steinbeis Transfer Network. It is headquartered in Stuttgart, Germany.