

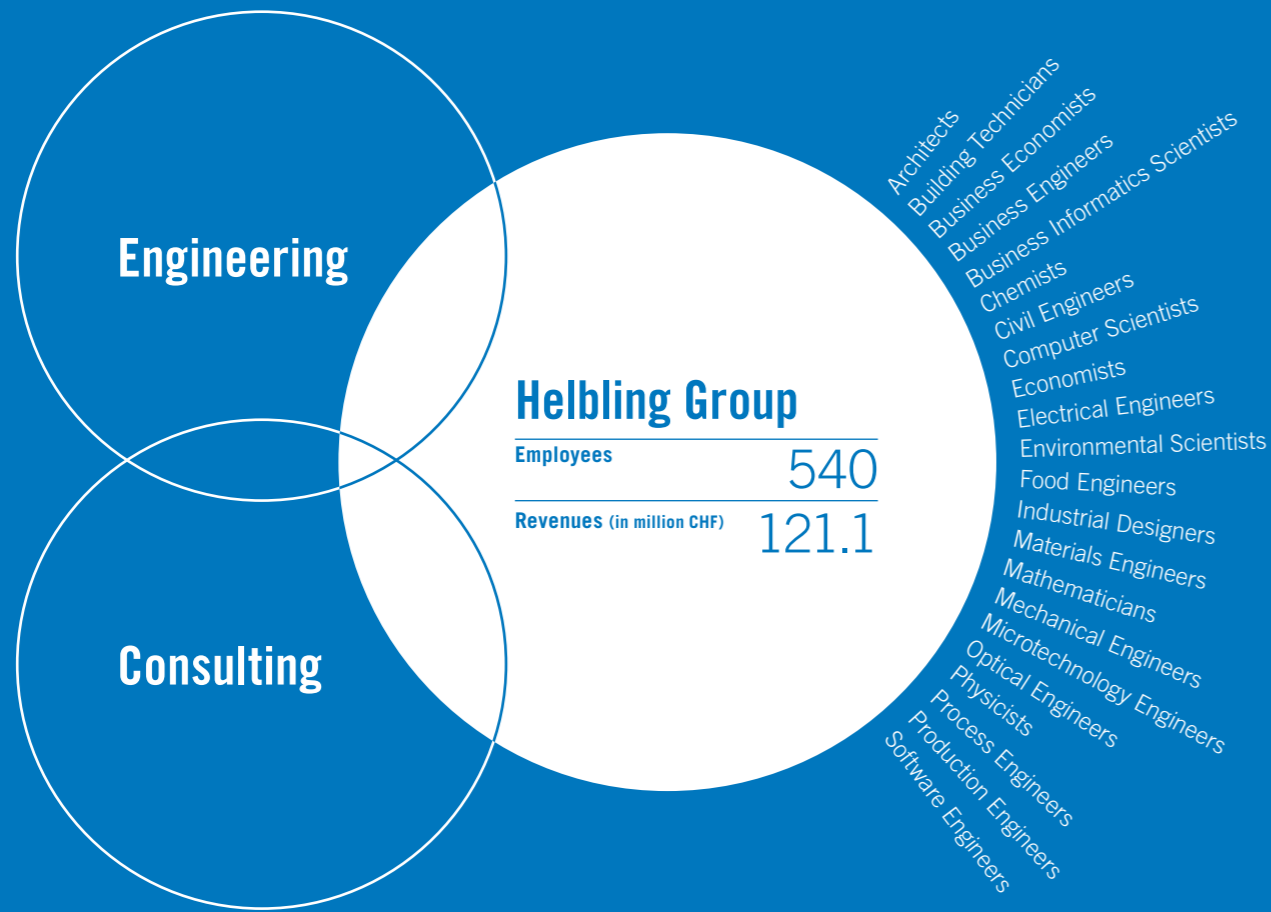
helbling



Company Portrait and Business Year 2017

Helbling Group
Valuable through Innovation

We realize innovations efficiently and solve entrepreneurial tasks



Helbling Technik		Helbling Business Advisors		Helbling Beratung + Bauplanung		Helbling PLM Solutions	
Employees	394	Employees	70	Employees	45	Employees	15
Revenues (in million CHF)	87.8	Revenues (in million CHF)	17.1	Revenues (in million CHF)	9.2	Revenues (in million CHF)	7.0
Aarau, Bern, Wil SG, Zurich, Munich, Boston, San Diego, Shanghai		Zurich, Düsseldorf, Munich, Stuttgart		Zurich		Zurich	

Digitalization Initiates Change. People Create Success.

Dear Readers

In their reporting the media tend to focus on things that go wrong. Catastrophic events like a plane crash figure right on the front page of the newspapers, whereas good news, such as the fact that 2017 was the safest year in the history of civil aviation, hardly receives a mention. Given the logic of today's media coverage, we are more than happy that Helbling does not make the headlines. Just like that of aviation specialists, our work outside the focus of the media helps innovative products and solutions to function well – in the medtech field as well as the automotive or consumer goods industries, to name just three examples.

The review of our business year in 2017 is worth a low-key headline, however, because what we achieved is due to you, our clients, our collaboration partners and our employees: 2017 was yet another successful year for the Helbling Group and we are quite frankly proud of that. What motivates us, however, is not the vision of a record performance, but your trust in us and the prospect of tackling major entrepreneurial challenges together with you.

Foremost among these challenges is digital transformation, which is changing the world as we have known it to date step by step, leaving no industry untouched. It is essential for us as your partner to help you shape this process of change proactively and with a clear goal in mind. To do this requires not just know-how and methodological competence, but also creativity and intuition, not just flexibility and agility but also dedication and stamina. All these qualities and capabilities come to fruition most effectively in relationships that are based on trust. The reason for this is obvious: innovations today are always the product of teamwork. Why? Because even in the age of digital interfaces it is the human interface that remains the decisive factor for future success.

Valuable through Innovation – to secure this aim in what is the 55th year since our foundation we will continue to raise the benchmark in everything we do, further optimizing our services and directing our efforts towards anticipating your needs even more accurately. Now and in the future, we are not aiming to make the headlines, but more than ever to enable your success.

We hope you will continue to share this journey with us.

Sincerely yours

Dr. Christian Péclat
Chairman of the Board
CEO



Marcel Fäh
Member of the Board
CFO



Innovative. Collaborative. Successful.

For the Helbling Group 2017 marked the most successful year in the company's history. With revenues of CHF 121.1 million we surpassed even the previous year's excellent results by a further 6.5%. In line with this growth, we were able to increase the number of professionals we employ by 7% to a total of 540. Roughly 20% of these work in the Group's international locations.

We achieved our goals for 2017 and in some cases even exceeded them. The positive performance of the global economy and the systematic upswing in business activity, especially in Helbling's most important markets Switzerland, Europe and the USA, helped us here. At the same time developments demonstrated once again how important innovations are for achieving sustained competitive advantage. This applies to new products, just as much as to new kinds of business models and production processes – all the more given the wave of digitalization that is sweeping from one industry to another and affecting all companies without exception.

We also benefitted in 2017 from our investments in the enhancement of our services and the ongoing modernization of our technical infrastructure. We were thus optimally positioned to make the most of the many and diverse opportunities that the good economic climate generated. We registered particularly pleasing progress in the Engineering und Product Innovation areas, with the development of miniaturized measuring systems or a camera that can transform any pair of spectacles into smart glasses. Also projects such as the financing of a production facility or the design of a completely new factory demonstrate the broad spectrum of areas in which our business divisions are active.

The number of clients who entrusted us with the execution of sophisticated projects rose to over 400

last year. Many of these companies have a worldwide presence and we maintain longstanding partnerships with the vast majority of them. Since our inception 55 years ago Helbling has developed from a local engineering office to an internationally active corporate group: in the past business year we earned 37% of our revenues outside Switzerland.

Prerequisites for Innovation

The international character and diversity of our clients and their projects are an important stimulus for our innovative drive. It is a known fact that real innovations only happen when several factors come together. These include knowledge and creativity, realism and passion, systematism and agility, but also tenacity and tolerance. The ideal dosage and combination of these ingredients is in many cases a delicate matter and can vary according to the task in hand. Equally decisive for the outcome is the specific composition of the teams. Given the undisputed fact that heterogeneous teams are known to be more creative: innovations emerge at the interfaces between disciplines.

Employees Make the Difference

With their specialist expertise and their readiness to perform, our employees form the basis both for the success of our clients' projects and for the long-term profitable growth of the Helbling Group. Attracting highly-qualified professionals is therefore one of our

strategic core objectives. No less important to us are investments in further education and the personal development of our staff. These investments are probably one of the reasons for our low staff turnover rate of under 10%, which for a service company is rather a positive exception.

In one area, however, we have not yet attained our goal: the percentage of female specialist staff and managers in the Helbling Group is still not as high as we would like. Partially this is due to the fact that women are still underrepresented in certain technical professions, but we are not satisfied with this as the sole explanation for the discrepancy at Helbling. We will therefore be making a continued and even more intensive effort to engage the interest of female scientists, engineers, architects and consultants in working for Helbling.

Healthy Finances and a Stable Shareholder Structure

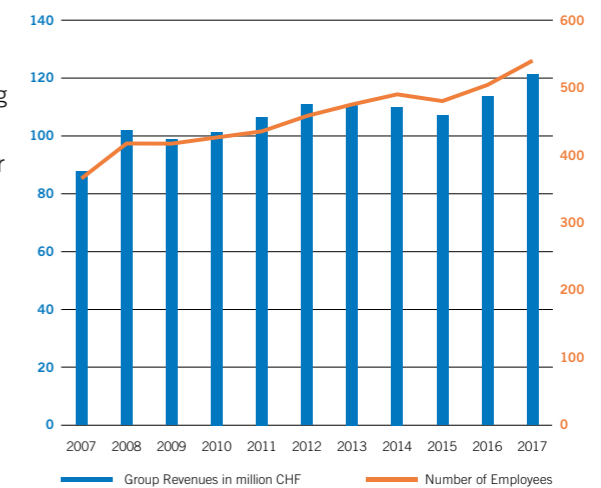
Operating cash flow of the Helbling Group rose in 2017 from CHF 12.8 million to CHF 13.8 million. As a result we were once again able to finance the investments needed for the development of our business from our own funds. These investments were directed at the further development of our services, the ongoing education of our staff and the expansion of our infrastructure, including technical laboratories among other things. The earnings power of the Helbling Group is moreover reflected in the top rating we are given by the banks for services companies of our size.

Thanks to the independence of the Helbling Group – given that our long-term financing comes solely from our equity capital – our attention can remain focused on our customers. Our stability rests on the fact that we are not exposed to pressure from any single

influential shareholder, nor are we controlled by a large corporation: The Helbling Group is currently owned by 30 executive partners and by some 240 employees who hold shares in our company via participation certificates. It is this tried and tested ownership model that enables Helbling to ensure an ongoing succession process. In 2017 three employees were welcomed as new partners in the firm, while two longstanding partners left the company.

Much Achieved and More Envisaged

We have made a good start to the current year and can view the future with confidence in view of the positive outlook for the economy. This confidence stems from the numerous investments we plan to make in this year as well. At the beginning of the year we initiated the expansion and enlargement of our locations in Bern and Boston. We now have a new presence, too, with our own location in California's San Diego. This enables us to provide our clients on the west coast of America with the same level of intense and close coverage that we deliver in all our markets.



Walter Huber, Partner
dipl. Ing. FH
Member of the Group
Executive Committee



Christian Péclat, Partner
Dr. sc. techn. EPFL
CEO



Stefan Huber, Partner
lic. oec. HSG
Member of the Group
Executive Committee



Bruno Berther, Partner
Head of Controlling



Kathrin Schwarz
Head HR Administration



Marcel Fäh, Partner
lic. oec. publ.
CFO



Philipp Stoffel, Partner
dipl. Ing. ETHZ, Dr. sc. techn.
Member of the Group
Executive Committee



Christoph Rothlin
CIO

Spectrum of Experience in the Global Economy

The Helbling Group has its headquarters and several subsidiaries in Switzerland, is represented through companies in Germany, USA and China and has worldwide project experience.

Our Focus

- A nexus of technological and business know-how
- Entrepreneurial innovation management from strategy to product development, marketing and resource planning
- Mid-sized companies/organizations and divisions of large corporations
- Industry know-how
- Implementation and achievement of results
- Independence (no conflicts of interest) thanks to sound finances and an enviable track record of business success

Our Visions

Employees make markets

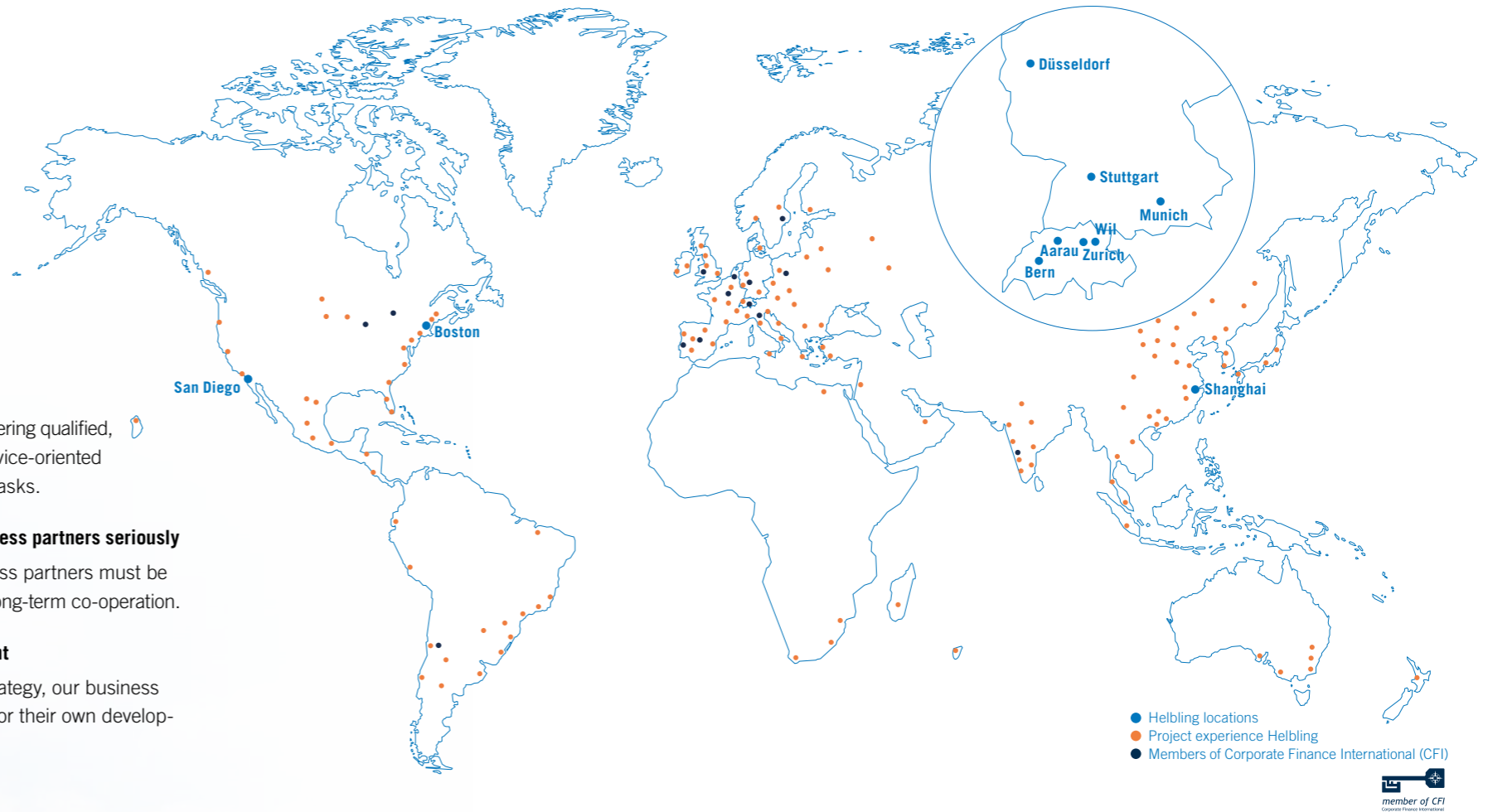
Recruiting, integrating and empowering qualified, entrepreneurially minded and service-oriented employees is one of our prime tasks.

We take the interests of our business partners seriously

Our relationships with our business partners must be fair and respectful and promote long-term co-operation.

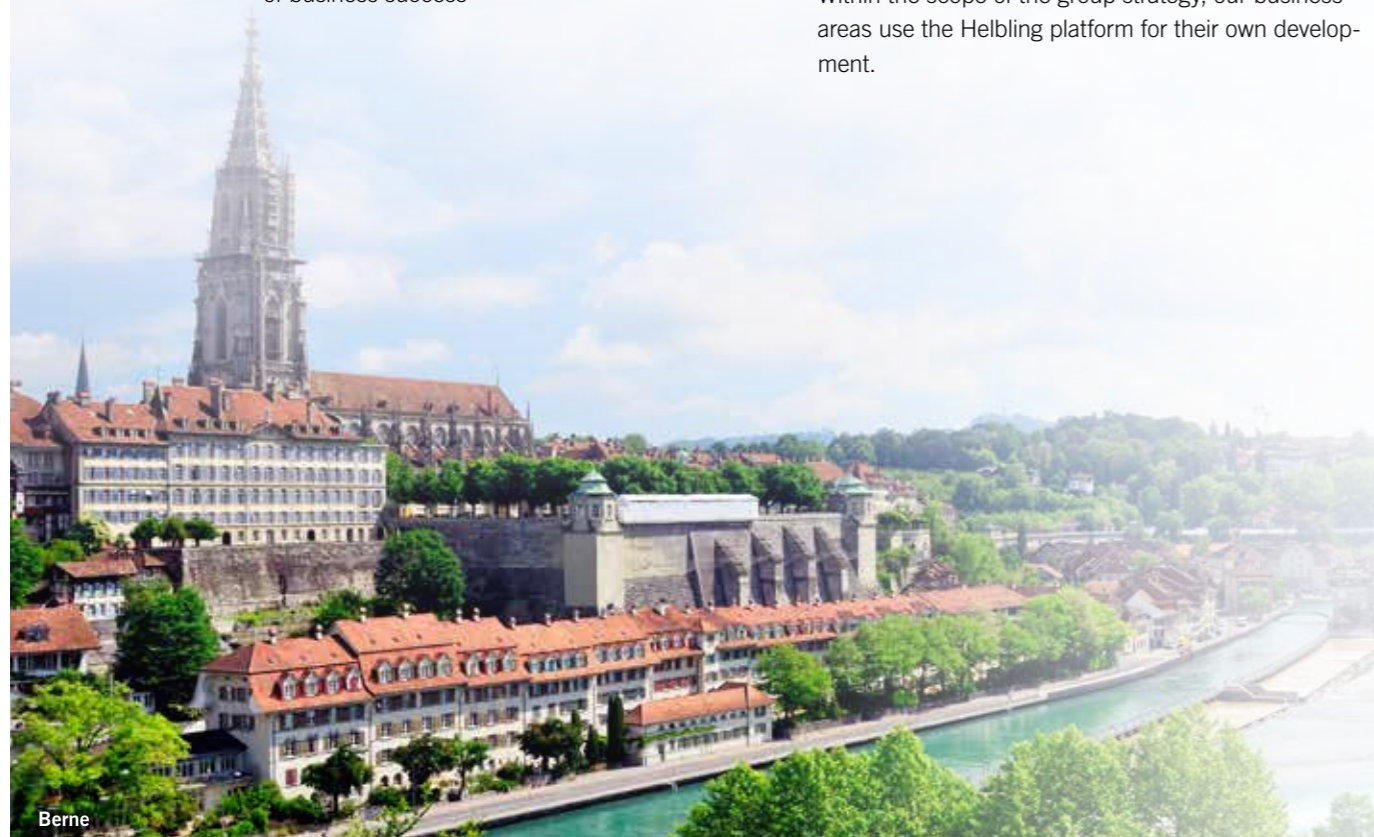
Federalism as a strategic element

Within the scope of the group strategy, our business areas use the Helbling platform for their own development.



Our clients include leading players in the following sectors:

- | | | | |
|---------------------------|------------------------------|------------------------------------|---------------------------------|
| - Apparatus | - Energy | - Micro Technology | - Senior Residential Facilities |
| - Automation and Robotics | - Engineering | - National and International Trade | - Software |
| - Automotive | - Environmental Technologies | - Paper Production | - Space |
| - Automotive Supply | - Financial Services | - Pharma | - Telecommunications |
| - Aviation | - Food Industry | - Plastics | - Textiles and Clothing |
| - Banking and Insurance | - Healthcare | - Precision Instruments | - Tool and Mold Making |
| - Biotechnology | - Hospitals | - Printing | - Transportation and Logistics |
| - Building Systems | - Household Appliances | - Public Companies | - Vehicle Construction |
| - Care Homes | - Industrial Electronics | - Public Sector | - Watch Industry |
| - Chemicals | - Information Technology | - Research and Education | - Wholesale |
| - Construction | - Instruments Manufacturing | - Retail | |
| - Consumer Electronics | - Mechanical Engineering | - Security Technology | |
| - Electrical Engineering | - Medtech | | |



Berne



Digitalization – The Pot of Gold at the End of the Rainbow?

“For companies, digital supply networks and the digital networking of the entire life cycle of products and services offer considerable business potential. This ranges from productivity increases via innovations in products and services to new business models.”

The promises made in the area of digital transformation are keenly reminiscent of the Irish legends in which dwarves hide their hoards of gold in a pot at the end of the rainbow. To claim this treasure for your own all you have to do is follow the dwarf to the end of the rainbow . . .

Much has been and is still being written about the need for digital transformation and the success it can deliver. By contrast with these theories, however, for many companies this transformation is as distant and unattainable as the end of the rainbow. The digital vision and strategy exist to some extent in rudimentary form only and frequently the necessary capacities are lacking to realize them.

The basic prerequisite for a successful digital transformation is the readiness to embrace change and the courage to tear down existing structures. Cooperating with a partner who has the knowledge and the necessary project experience helps companies to successfully execute their digital transformation.

Product innovation – 4.0 Ready

The technologies for realizing innovative ideas are there but they must first be combined in the right way. “An interconnected system, open for the integration of new services, reproducible in the digital factory”, or “4.0 ready” are statements that promise a lot. However, the continual process of product innovation requires new and customized combinations on a repeated basis in addition to a holistic system approach that examines such diverse elements as the human factor, technology/IT, organization, strategy and processes and brings them together in an appropriate manner.

Smart Data

Data analysis is a powerful tool, “big data” an equally powerful word. When new products are developed the data are rarely “big” at the outset and must first be collected and evaluated. This process involves a lot of work but is critical for the success of the project. For this reason it makes sense to begin analysis at an early stage in order to capture the data efficiently and thus ensure

their optimal quality. If a project involves image recognition, for instance, external factors that influence image quality and recognition rate must be taken into account at the data collection stage. The best learning algorithm is no substitute for good data and a targeted data capture. It requires knowledge of both engineering and data analysis. This specific know-how is not automatically available in sufficient amounts at every company.

Digital Factory and Digitalized Business Processes

Digitalizing the supply chain is one of the success factors in digital transformation. These include:

- Holistic planning, control, and continuous improvement of all major factory processes and resources
 - An integrated supply chain
 - Digital support from marketing through to after sales service
- New technologies and tools such as augmented reality, bots, MES software or machine learning are useful applications but they need to be employed properly and require experience and specialist capabilities.

The Agile Company

An agile company recognizes early on that markets are changing and thus reacts faster than its rivals. This means that the corporate culture and organization are adapted, while continual shifts in customer needs and technological trends are identified and integrated into a new value chain. By setting up a continuous improvement process after the initial transformation phase, companies can considerably shorten the time to market for new ideas and developments. The exchange of knowledge between know-how carriers works and the company’s resilience is bolstered for the long term.

With our combination of capabilities in engineering and consulting we can support our clients in all these challenging projects, thereby contributing significantly to the implementation of their digital transformation.

Helbling Technik

Innovation, together we do it

Helbling Technik

394 employees

Your Partner for Innovation and Product Development through Cooperation

Specialist Areas

- Product Innovation
- Mechanics and Construction
- Electronics, Firmware
- Software and IT
- Usability
- Data Analytics, Internet of Things
- Microtechnology and Microsystems Technology/MEMS
- Optics
- Physics, Thermodynamics, Fluidics, Acoustics
- Modelling, Calculation and Simulation
- Measurement Technology and Sensors
- Signal and Image Processing, Algorithmics
- Automation, Robotics and Mechatronics
- Plastics Technology
- Material Science
- EcoDesign

Industries

- Home and Office Appliances, Consumer Goods
- Medical Technology
- Diagnostics and Lab Systems
- Automation and Mechanical Engineering
- Transportation and Mobility
- Energy and Smart Infrastructure
- Service Industry and Public Sector
- Clean Tech
- Instruments and Tools

Innovation Management

- Innovation Pre-Projects
- Product and Cost Management

Innovation – a Question of Teamwork, Methodology and Systematology

Worldwide demand for innovation services remains high and brought Helbling Technik another very successful year in 2017.

When we speak of success, we are not just referring to the marked increase in sales, revenues and headcount. We are thinking primarily of the successes our clients achieved with numerous innovative product launches, to which we contributed decisively with our innovation and engineering services. Now more than ever, the projects and products realized in the marketplace are our greatest motivator, inspiring us to be a valuable innovation and development partner for our clients.

The challenges are enormous and becoming bigger by the day. The competition for innovative products cannot be won with cheaper engineering resources – on the contrary. The advent of new technologies is making product innovations increasingly complex so that they can only be realized in ever-shorter times by top-line professionals working in multidisciplinary teams. The mix of skills and the technology expertise they bring to the table are game-changing parameters for these innovation teams. Even the best educated engineers excel themselves when working in a strong team.

Once these essentials are in place, what it then needs is stamina and determination

and the ability to exact and to foster efficiency in the development team.

The current debate is dominated by new development and project management methods and we too are dealing with these intensively. One example is design thinking with an agile project management in the early stages of a project and the use of such methods in projects where they yield great advantages. This is especially true of software development where the customer is in agreement. Agility and a value centered approach have become key factors in the early innovation stages. Nevertheless, our methods, which are based on broad and deep experience, are probably somewhat different from those applied by many new competitors in the market. Human Centered Thinking is undisputedly a creative and valuable method of finding new solutions. Once these have been identified, however, it is only possible to save time and costs when faced with technological challenges in the development process through the use of good planning and analytical thinking. We see similar challenges in the application of agile project management methods. Agile, self-organizing teams are more efficient than micro-managed individuals.

Although this finding is not new, work must be planned well in agile processes and the responsibility towards the other teams must be clearly defined in the interfaces. How teams work together with clients, manufacturers, suppliers or institutions must

be well organized at all times. Our clients rightly demand that we as professional and often longstanding partners announce the projected results, costs and deadlines at an early or at least reasonably early stage. By their nature, innovation projects involve a high level of entrepreneurial risk, but in 2017 we were able yet again to ignite the enthusiasm of many clients for our approach. Our relationships with over 80 % of our clients are characterized by trust and endure for many years.

Helbling Technik has consciously chosen a decentralized organization with its 37 development teams, each with its own defined specialized services in eight different locations in Switzerland, Germany, USA and China, the latest addition being a new location in San Diego, USA.



Nescafé Dolce Gusto coffee machine "Majesto"

© Nestlé S.A.

Walter Huber, Partner
dipl. Ing. FH
CEO Helbling Technik



Harald Zurheide, Partner
dipl. Ing. FH
Senior Vice President
Aarau



Nicolas Schärer
dipl. Ing. ETHZ
Senior Vice President
Bern



Franz von Niederhäusern, Partner
dipl. Ing. ETHZ
Senior Vice President
Zurich



Tom Russi, Partner
dipl. Ing., Dr. sc. techn. ETHZ
Senior Vice President
Aarau

Michel Brühwiler, Partner
MSc. Eng., MBA
Managing Director
Boston



Martin Eisenmann
dipl. Ing. TU
Managing Director
Munich



Urban Schnell, Partner
dipl. Ing., Dr. sc. techn. EPFL
Senior Vice President
Bern



Hans Tischhauser, Partner
dipl. Ing. FH
Senior Vice President
Wil SG



Center for Transportation, Power Generation & Simulation
30 employees

Center for Software Engineering & IT
30 employees

Innovation Center Transportation, Power Generation & Simulation

We are the development partner for our clients when it comes to realizing individual, secure and connected mobility for humans and goods. These include rolling stock, amusement rides, cable cars, subsystems and the infrastructure. The transport of persons requires that high standards of safety, comfort and information be met. With our systematic approach and familiarity with international standards we create added value for our clients through efficiency and routine in the development of vehicle structures, interior furnishings and the integration of electronic components in transport systems. The wear and tear on systems for the transport of people is increasing – the answer to this lies in the measurement, recording and evaluation of physical strain on the components as well as the parallel analysis of these strains.

We are practised in the various process steps in the development of digital twins and thus help our clients to master the challenges of heavy wear and tear on materials and infrastructure.

Innovation Center Software Engineering & IT

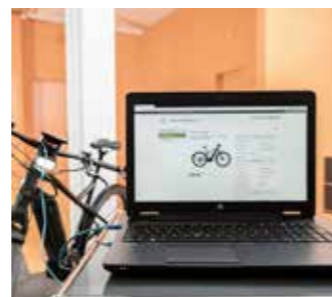
Digital transformation is essentially driven by software: whether what is envisaged is a connected system of devices, machines and mobile applications or the digitalization of entire process chains – from sensor data to intelligent decision aids. The core competency of the Innovation Center Software Engineering & IT is the development of customized, secure and easy-to-use solutions. As a member of Swiss Made Software we develop our software exclusively in Switzerland. In this way our customers profit from the innovative talent as well as the high quality of our software engineers. Last year we continued to expand our capabilities in machine learning, data analytics and statistics in order to be able to extract valuable knowledge from large amounts of data. Thanks to our agile development methodology we can integrate our clients even better into the development process, while at the same time reducing project risk and ensuring that parts of the product are delivered continuously in regular cycles. As a reliable partner we accompany our clients on their journey to digital transformation.



Rock fall simulations allow for optimal dimensioning of Geobrugg's rock fall barrier system RXE.



Faster development times with augmented reality and digital twins.



Configurable, personalized E-Bike products



Battery operated carpenter's planer with unmatched ease of use. Pre-development of sub-aspects and integration into a functional model.



PogoCam TM – a small, look-and-shoot camera that attaches to eyewear to take photos and hands-free video from your unique perspective.



Center for Home & Office Appliances
33 employees

Center for Medtech, Optics & Micro Technology
57 employees

Innovation Center Home & Office Appliances

In our innovation center we develop outstanding innovative products and appliances for the home, office and hotel/catering trade from ideation right through to series production. We support our clients with our expertise in mechanical and electrical engineering development as well as in physics. To this end we use state-of-the-art, highly developed methods derived from systems engineering and process modeling to organize the development processes in a targeted fashion while keeping them short and plannable.

For products of everyday life the key factor is an optimal relationship between the individual and the product. This is achieved through the reliable, intuitive functioning and handling of the product, a sophisticated choice of material and connectedness via the IoT. Thanks to these excellent, innovative products our clients are able to operate successfully in their markets.

Innovation Center Medtech, Optics & Microtechnology

The trend towards digitalization, personalization and the use of consumer goods technologies in the medtech field is still in full swing and in combination with leading-edge technologies is opening up innovative diagnostic and therapeutic possibilities in the healthcare area. These products are increasingly in use in operating rooms, doctors' surgeries and in the everyday life of patients. Our innovation center Medtech, Optics & Microtechnology has recognized this trend and works together with large corporates, small and mid-sized enterprises and startups on successful technology and product developments with the focus on mobile medical devices and active implants. To strengthen and expand our services in the field of medical embedded software we will be building a new development team from 2018 onwards. Spurred by the growth in both our innovation centers in Bern we started to expand our infrastructure in 2017. As from autumn 2018 we will have available a further 40 attractive workplaces and another 8 highly specialized development labs housing a total of 130 employees on a surface area of 2,600 square meters.



Markus Hofer
dipl. Ing. FH
Head of Development



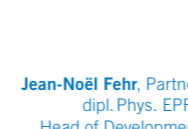
Benno Steiner
dipl. Ing. FH, MAS BA
Head of Development



Andreas Suter, Partner
dipl. Ing. FH
Head of Business Unit



Rainer Maisch, Partner
lic. oec. publ.
Head of Business Unit



Jean-Noël Fehr, Partner
dipl. Phys. EPFL
Head of Development



Niklaus Schneeberger
dipl. Phys.,
Dr. sc. nat. ETHZ
Head of Development



Hans Bernhard
dipl. Ing., Dr. sc. techn. EPFL
Head of Development



Stefan Troller, Partner
dipl. Ing. EPFL
Head of Development



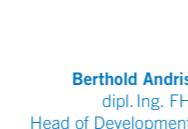
Emmanuel Gremion
Partner
dipl. Ing. FH
Head of Business Unit



Urs Anliker
Dr. El. Ing. ETHZ
Head of Development



Muzaffer Dogru
dipl. Informatiker
Head of Development



Berthold Andris
dipl. Ing. FH
Head of Development



Daniel Hauri
dipl. Ing. FH
Head of Development



Julian Yeandel
MSc. El. & SW, PhD
Head of Development





Helbling Technik Wil SG
120 employees

Innovation Center Wil SG

Looking back on the year 2017, there were two particular highlights for us in the innovation center in Wil. The first was the development of a wearable that designed for the early recognition of symptoms of an acute illness with the aim of being able to start medication at an earlier stage. The second was the start of a project for a new kind of toilet system for developing countries in collaboration with an American non-profit organization.

We are expanding our capabilities on a continuous basis and the business unit Healthcare & Diagnostics with its focus on connected therapy devices and laboratory systems profited from this in particular with the formation of a new group of 4 professionals in the design and usability area. Also our proven industry specializations such as home appliances, power tools, sensing and optics, as well as beverages and food systems are benefitting from our investments in head-count and infrastructure. For 2018 further investments in areas such as EMC and virtual reality labs are planned.



Optical Engineering of a Rain-Light-Sensor for Valeo



The first Freeze Dryer with continuous sublimation. Lyovapor by BÜCHI Labortechnik AG (www.buchi.com)



Nestlé BabyNes System – 2nd generation

© Nestlé S.A.



Osterwalder – New high-efficiency multi plate powder press with press forces 800 – 2000 kN

Innovation Center Zurich

The Innovation Center in Zurich focuses on the development of machines, production systems and devices for the mechanical and electrical engineering industries (MEM). Year for year, customers from both Switzerland and abroad entrust us with complex projects. In these mandates the emphasis is not so much on individual resources but on seasoned teams that work in close collaboration and have the necessary experience, specialist expertise, creativity and methodology. Many of these projects start in the early stage of innovation where there is a close interplay between desirability, feasibility and viability and a solid basis is laid for the accurate execution of the development project itself.

In the past business year the number of projects we undertook grew significantly, especially in the area of international factory planning. Due to this, as well as for other reasons, we invested in the future and in a new robotics team which is an ideal extension of our existing mechatronics capabilities. We look forward to supporting our clients with technical expertise in a full range of disciplines and thereby contributing to the competitive strength of the MEM industry.



Helbling Technik Zurich
76 employees



Zehnder Zenia – multifunctional bathroom heater: Digitalization for optimal airflow and intuitive control



Ronal Group – Factory Planning of a production plant in Teruel, Spain



Ralph Kugler, Partner
dipl. Ing. ETHZ
Head of Business Unit

Chris Gugl
dipl. Ing. ETHZ
Head of Development



Alexander Heinrich
dipl. Ing. TU
Head of Development



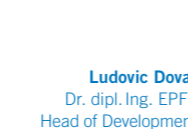
Christian Gärtner, Partner
dipl. Ing. TU
Head of Development



Johannes Eckstein
dipl. Ing. FH
Head of Development



Michael Weibel
dipl. Ing. FH
Head of Development



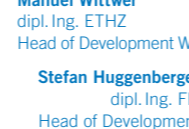
Ludovic Dovat
Dr. dipl. Ing. EPFL
Head of Development



Gabriel Sutter, Partner
dipl. Ing. FH
Head of Development



Manuel Wittwer
dipl. Ing. ETHZ
Head of Development Wil



Stefan Huggenberger
dipl. Ing. FH
Head of Development



Guido Brunecker, Partner
dipl. Ing. ETHZ
Head of Business Unit



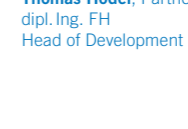
Christian Lobeto
dipl. Ing. FH
Head of Development



Ueli Schläpfer
dipl. Ing. EPFL
Head of Development



Thomas Hodel, Partner
dipl. Ing. FH
Head of Development



Beat Zumbühl
dipl. Ing. FH
Head of Development



Andreas Portmann, Partner
dipl. Tech. HF
Head of Business Unit



Helbling Technik Munich
30 employees

Innovation Center Munich

The Munich innovation center's core activity is the development of high-performance embedded systems from ideation all the way to series production. The efficient and secure wireless transmission of data is an increasingly important factor for our clients. In line with this need we have further extended our electronics, software and test know-how so that we are able to successfully use a wide variety of radio standards in diverse automotive and consumer goods projects. We see further interesting tasks in this area, which we will tackle with enthusiasm and the aid of modern tools in the year ahead. In the field of power electronics, industrial customers benefitted from our capabilities and tools for EMC-compliant design and the simulation of circuits and magnetic fields. The development of embedded software compliant with IEC 62304 also remains a core focus in the medtech industry. We already developed successful concepts for adapting devices to the latest edition of IEC 60601 last year and will be bringing these into series production this year.



Helbling Precision Engineering
18 employees

Innovation Centers Boston and San Diego

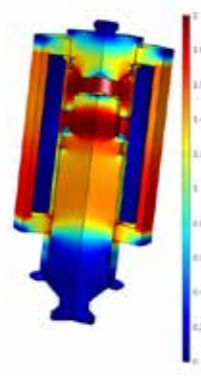
The dynamic nature of the healthcare industry demands innovation partners that link the past to the future. Helbling's Boston and San Diego teams made that link for many start-ups and established firms in the Medical Device, Robotics, Diagnostics, Lab Automation, Pharma and Biotech fields by combining creativity, unique technical skills and user focus.

The drive to better patient outcomes creates new opportunities in many areas including safely connected Medical Devices with the potential for data aggregation and analysis, and Robotic Surgery systems that expand the range of accessible and affordable procedures.

We have been actively working in these markets for several years and plan to continue investing in services that help our clients develop products with a positive impact on people's lives. In short, we deliver creativity that works.



Electrical toothbrush with pressure sensor



Magnetic field simulation of a gas safety valve



Electronics development for smart medical device

Helbling Business Advisors

Together we push your business



Perlen Papier AG – Business consulting by Helbling Business Advisors

Helbling Business Advisors

70 employees



Restructuring

- Turnaround Concepts and Implementation
- Financial Restructuring Expertises and Business Plan Plausibility Checks
- Liquidity Planning and Control
- Business Planning and Financial Modeling

Mergers & Acquisitions

- Sell- and Buy-side M&A
- Succession Planning and Solutions
- Management Buy-outs and Buy-ins
- Due Diligence and Corporate Valuations

Operational Excellence

- Supply Chain, Production and Procurement
- Process and Cost Optimization
- Business and Innovation Management
- Digitalization and Industry 4.0

Strategy

- Strategy and Organization
- Marketing and Sales
- Performance Management
- Transformation and Change Management

We are the experts for corporate finance, operations, digital transformation and strategy within the Helbling Group and advise our clients on strategically important and critical decisions for their businesses. With our systematic approach we focus on the needs and aspirations of our clients.

for action in their business. We develop strategies to ensure their success and increase profitability that lead to a sustained improvement in their market position, business performance and capital.

We see ourselves as sparring partners who offer clients a neutral view of their company. To achieve this we develop a dialogue with them as equals, give them honest feedback, create clarity and deliver concrete and practical recommendations

Our solutions-driven approach and our strength in implementation were key elements of our success in 2017 as well. More than anything, it is the trust our clients place in us that motivates us to raise our commitment and the quality of our services on an ongoing basis.



Matthias Moll
dipl. Ing. (Univ.)
Head of Development
Munich



Godert de Jager
Dr. sc. techn. ETHZ
Head of Development
Shanghai



Michael Isermann
dipl. Ing. (Univ.)
Head of Development
Munich



Lutz Beckmann
dipl. Ing. TU
Head of Development
Munich



Cole Constantineau
MSc. Mech. Eng.
Head of Development
Boston



Stefan Huber, Partner
lic. oec. HSG
CEO Helbling Business Advisors



Ralph M. Bush, Partner
lic. oec. HSG
Chairman of the Partner Assembly
Member of the Executive Board
Zurich



Markus Mühlenbruch, Partner
Business Economist
Managing Director
Stuttgart



Thomas Bertschinger, Partner
lic. oec. HSG
Managing Director
Zurich



AISA Automation Industrielle SA – Business consulting by Helbling Business Advisors

Restructuring

The global economy continues to grow, driven by the upswing in Europe and Asia and the tax reform in the USA. Currently there are no indications that this good economic trend is about to end. Nevertheless, competition in the global marketplace, fluctuations in sales and rising wage costs and the availability of qualified staff, especially in Germany and Switzerland, present companies with ever new challenges, that can also give rise to crises in the organization.

For our clients we development bespoke concepts and assist them while they introduce new business and leadership models. Our concepts help them optimize manufacturing costs for the long term, enable growth and secure the financing they need. Especially in critical situations we aim to support companies and work with them to develop suitable solutions. Our range of advisory services contains all the essential building

blocks that enable us to respond swiftly and holistically to crisis situations.

Mergers & Acquisitions

The number of corporate takeovers was also high in 2017. Companies invest in anorganic growth and the availability of financing on cheap terms and the digitalization of business models play a key role here. M&A transactions are a suitable means of strengthening an enterprise's own market position and its readiness to cope with the future. In 2018 as well, anorganic growth will be a decisive factor in the implementation of strategies.

Besides comprehensive specialist and industry-specific expertise and long years of experience we have in-depth technological know-how embedded in our organization. We are at our clients' side to assist with all strategic issues of the M&A process and support

them from the acquisition strategy and target search through due diligence and all the way to post-merger integration. Whether the topic is classic successor planning or the disruptive forging of digital alliances – we bring them together with the right partner. As part of Corporate Finance International we have global reach and access to investors all over the world.

Operational Excellence

Data have long become the raw material of the future and artificial intelligence is likely to soon be a crucial ingredient in any corporate planning process. Companies' agility, speed, adaptability to internal and external changes, their client-centricity and agile approach are more than ever at a premium.

For our clients we draft concepts that are effective and value-enhancing and support them in implementing their globally connected supply chains. Here the focus is on the optimization of the global network of engineering, production and logistics locations (global footprint), procurement, sales and customer services. We improve their competitiveness, effectiveness and efficiency, their costs and lead times; we help them make their structures and processes more flexible and optimize the deployment of staff and assets.

Our concepts are based on feasibility, flexibility and a fast return on investment. To this end we combine new 4.0 technologies such as the smart factory, big data, intelligent networking with clients via an Internet of Things platform and innovations of existing IT applications (such as CRM, PLM, ERP) with established operational excellence methods.

Strategy

For companies, particularly in technology-driven industries, we develop strategies for profitable growth. These focus on organic, acquisition-driven and organizational solutions for the further development of business models, product innovations, market penetration and opening new sales channels, customer segments and markets. The enormous possibilities of digital transformation and the prospect of optimizing the global supply chain are decisive drivers in this process.



M&A-Transaktionen (extract)

Jan Maser
dipl. Wirtschaftsingenieur (FH)
Member of the Executive Board
Düsseldorf



Jan-Erik Gürtner, Partner
dipl. Kfm.
Managing Director
Düsseldorf



Gernot Schäfer
dipl. Ing.
Member of the Executive Board
Stuttgart



Volker Gross
dipl. Volksw., LL.M.
Member of the Executive Board
Düsseldorf



Ulrich Feindt
dipl. Wirtschaftsingenieur (FH)
Member of the Executive Board
Munich



Malte Jantz
Business Economist
Member of the Executive Board
Zurich



Nicolas Gutbrod
Bachelor of Business Administration
Member of the Executive Board
Munich



Helbling Beratung + Bauplanung

Your Partner for Real Estate, Industry and Infrastructure Projects

Helbling Beratung + Bauplanung

45 employees



Industries

- Real Estate
- Industry
- Infrastructure
- Energy

Services

- Site Development and Master Planning
- Project Owner Advisory and Representation
- Optimization of Production Costs using the Pinch Method
- BIM Manager/Coordinator/Modeler
- Energy Concepts
- Expert Planning Building Technology
- General Planning and Management
- Feasibility Studies and Valuations
- Representative of Building Occupants and Operators
- Project Definition and Procurement Concepts
- Project Management for Project Owners
- Project and Risk Management
- System Integration for Process Engineering
- Technical Due Diligence
- Thermal Building and Flow Simulations
- Profitability Calculations, Life Cycle Assessments
- Second Opinions

Helbling Beratung + Bauplanung is an independent consultant for real estate, industry and infrastructure projects. We provide advisory, representational and planning services for both public and private project owners. In 2017, we continued to expand our leading market position in these business segments. This applies in particular to our project owner advisory and representational services for private and public clients as well as in the area of complex technical planning tasks.

Real Estate

In the past year we supported renowned project owners in various roles, helping them to successfully plan and realize their construction projects. Both public and



Vulcano Zurich: Project Owner Representation and Quality Assurance in the field of Building Technology

private project owners enlisted our expertise, as for example on the Vulcano project in Zurich, thereby placing their trust in our capabilities. In addition, we supported our clients in the technical modernization of their property holdings as well as in quality assurance. Given the growth in competition and the increasing tendency to commission studies we also received many exciting mandates to help clients with diverse building projects.

Industry

We advise our clients from the industrial sector on the initiation and implementation of their projects both in and outside Switzerland. We were thus mandated in 2017 to provide advisory services to the paper and

waste recycling industry in Italy and Austria. In the course of these projects we conducted an in-depth analysis of a waste incineration plant in Zistersdorf (Austria). Our services during the year also included the reduction of operating costs through technically clever solutions with a view to achieving a more efficient use of resources.

Infrastructure

Infrastructure projects face ever greater problems because of the limited space available. What is increasingly required is the ability to coordinate the interests of all three levels of government. An exemplary project here was our role as a regional planning staff unit, tasked with integrating the projected busy traffic arteries of the Glattal highway and the Brütten tunnel into the local environment. As a representative of, or advisor to, project owners we also accompany various infrastructure projects for rail, road, power generation and transmission.

Energy

Despite the continued low level of energy prices, the demand for an intelligent, resource-saving and sustainable supply of energy is unbroken. In line with this, our clients are focusing more and more on solutions that involve a holistic view of entire sites. Driven by this trend, we drew up a master regional development plan for the future energy supply of the Zurich region of Lengg. In addition, we assisted our clients with energetic studies for the continuous optimization of their specific energy consumption.



Incineration plant at Zistersdorf (A): Energy Analysis



Arbitration/integrated regional planning Glattal: Satisfied clients of local, cantonal and national state level



General project plan "Lengg / Zurich": Feasibility study future energy supply



Philipp Stoffel, Partner
dipl. Ing. ETHZ, Dr. sc. techn.
CEO Helbling Beratung + Bauplanung



Rainer Bendel, Partner
dipl. Ing. ETHZ
Senior Vice President



Martin Gähwiler, Partner
dipl. Ing. ETHZ
Senior Vice President



Martin Kessler
dipl. Ing. FH
Teamleader



Gian-Reto Peer
dipl. Arch. FH
Senior Vice President

Helbling PLM Solutions

Enabling Innovation with Information Technology

Helbling PLM Solutions

15 employees



PLM Consulting

- Project Management
- Coaching
- Surveys, Audits and Analyses
- Organizational Consulting
- Process Optimization
- Methods
- Solution Concepts
- IT Architecture/IT Infrastructure

PLM Solutions

Conception and Implementation based on the products:

- 3DEXPERIENCE Platform
- CATIA
- ENOVIA
- SIMULIA
- DELMIA
- SmarTeam

PLM Services

- Training
- Support (Hotline; On-site)
- Customer-specific Developments
- CAM Postprocessors
- Outsourcing of System Support

Product Lifecycle Management drives the digital transformation

The transformation to the digital world requires a digital mindset. Away from key numbers and paper data storage, to database-driven and workflow-based processes. To achieve such a change of paradigm, our customers need advice and expertise derived from a wealth of successful projects. "Data driven", "model based" is the motto of our partner Dassault Systèmes' trendsetting 3DEXPERIENCE platform and we are taking a leading role in its implementation in several industries.

3D constructs are the basis for the digital representation of a product. The digital information can be used to perform

simulations and calculations, to present variations and configurations and also to plan assembly steps. System-based requirements engineering helps orchestrate user expectations, laws and guidelines in the development process. Project management, task and issue management help organize the data flow, special security mechanisms protect this data in the company's own data center or in the cloud.

The consultants and technicians of Helbling PLM Solutions support customers in building the engineering foundation for a digital world. The know-how, commitment and reliability of our consultants form the basis for a trusting partnership with our customers that in most cases lasts for many years.



Bacher supplies complete solutions for rail vehicles, transport systems and other sheet metal components with CATIA V6, the process workflow will be realized with the 3DEXPERIENCE platform.



HAKAMA develops based on of the 3DEXPERIENCE platform, innovative casings made of thin sheet metal for the highest requirements on functionality and design.



Janos Barko, Partner
dipl. Ing. TS
Senior Vice President



Karlheinz Ribar
Senior Consultant PLM
Senior Vice President



Michael List
dipl. Ing. ETHZ
Senior Consultant PLM
Senior Vice President



www.helbling.ch

Switzerland

Helbling Holding AG

Hohlstrasse 614
CH-8048 Zurich
+41 44 438 17 11

Helbling Technik AG

Schachenallee 29
CH-5000 Aarau
+41 62 836 45 45

Helbling Technik Bern AG

Stationsstrasse 12
Postfach 171
CH-3097 Liebfeld-Bern
+41 31 979 16 11

Helbling Technik AG

Hubstrasse 24
CH-9500 Wil SG
+41 71 913 82 11

Helbling Technik AG

Hohlstrasse 614
CH-8048 Zurich
+41 44 438 17 01

Helbling PLM Solutions

Hohlstrasse 614
CH-8048 Zurich
+41 44 986 39 39

Helbling Business Advisors AG

Hohlstrasse 614
CH-8048 Zurich
+41 44 743 84 44

Helbling Beratung + Bauplanung AG

Hohlstrasse 614
CH-8048 Zurich
+41 44 438 18 11

Germany

Helbling Holding Deutschland GmbH

Leonrodstrasse 52
DE-80636 Munich
+49 89 459 29 250

Helbling Technik GmbH

Leonrodstrasse 52
DE-80636 Munich
+49 89 459 29 250

Helbling Business Advisors GmbH

Leonrodstrasse 52
DE-80636 Munich
+49 89 459 29 400

Helbling Business Advisors GmbH

Bolzstrasse 3
DE-70173 Stuttgart
+49 711 120 46 80

Helbling Business Advisors GmbH

Neuer Zollhof 3
DE-40221 Düsseldorf
+49 211 137 07 0

USA

Helbling Precision Engineering Inc.

625 Massachusetts Ave, FL1
Cambridge, MA 02139, USA
+1 617 475 1560

Helbling Precision Engineering Inc.

600 B Street, Suite 300
San Diego, CA 92101, USA
+1 617 475 1560

China

Helbling Shanghai Representative Office

Room 510, JieLong Headquarter Park
No.2112 Yanggao mid Rd.
Pudong Shanghai, PC200135
+86 21 508 179 29

The Helbling Group was founded in 1963 and is owned by its 30 managing partners. The internationally active engineering and consulting firm employs some 540 professionals in four business divisions focused on innovation/product development, management consulting, mergers & acquisitions, restructuring, information technology, real estate, energy and infrastructure.