

Innovating a sustainable future.



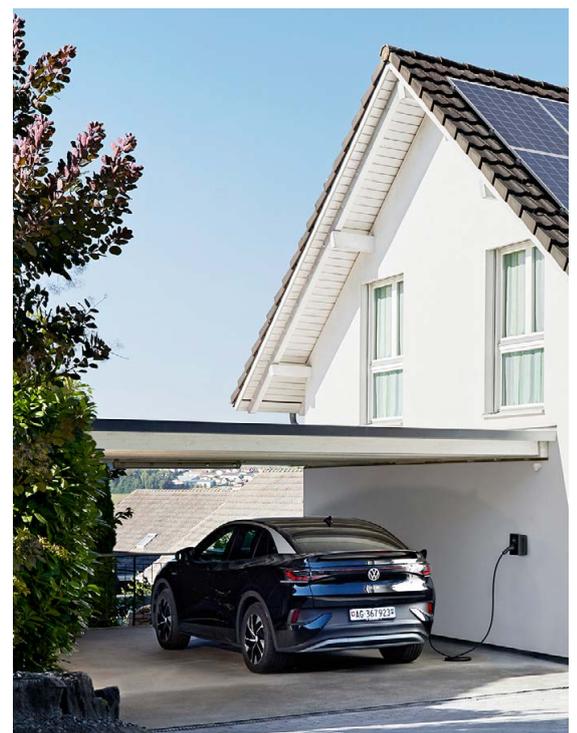
Highlights of 2022

Page 8

The shift towards greater sustainability:
An opportunity and a necessity

Page 10

AMAG Group AG:
A future market leader
for sustainable,
personalized mobility
and energy



Contents

Editorial	4
Key figures	5
The Helbling Group	6
Review / outlook	7
Sustainability	8
Projects	10
Business units	20
Locations	24

Page 12

ESGE AG: The BAMIX® Cordless with charging station

Page 13

The Davos municipal authorities and transport operators: Electro-mobility concept

Page 14

Nestlé System Technology Center: NESCAFÉ Dolce Gusto NEO, the next generation “coffee shop at home” experience

Page 15

Synhelion AG: Sustainable solar fuels for CO₂-neutral mobility

Page 16

Mibelle Group: Development of an R&D function strategy and organizational evolution

Page 17

Entsorgung + Recycling Zürich: Demolition of a waste incineration plant / construction of the Josefstrasse energy supply center

Page 18

Rüschlikon municipality: “Kranich” Lake Water Network Rüschlikon

Page 19

The DeepWood research project: Disruptive engineering for industrialized wooden construction

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60 years of Helbling Continuity in times of change

Dear Readers,

In 2023, the Helbling Group is celebrating the 60th anniversary of its inception. Looking back at its history, the group's defining characteristic of continuity became apparent at an early stage. And that's not all. It was this continuity in particular that enabled it to develop from an office for engineering services into an international engineering and consulting company.

In 1963, Max J. Helbling founded a company in Zurich that was soon the subject of strong demand for its design and product development services. Other locations were soon added – first in Switzerland and later in other countries as well. At the same time, consulting services were gradually introduced to complement the engineering services. Today, the Helbling Group is made up of four business units, and employs more than 600 people at eleven locations in five different countries.

This development was facilitated and driven by Helbling's positioning, which is the same today as it was back then. The focus in this respect is on our talented employees, who work in multidisciplinary teams with a focus on innovation to develop solutions for our clients. They do this as part of a federal group structure that offers ample scope for the entrepreneurial refinement of existing services and the development of new ones – fully in keeping with our conviction that employees make markets. This approach has enabled us to tap into every sector of the manufacturing industry over the years. Our high levels of specialization, experience, and efficiency have proven key when it comes to accessing the

global market, and this access is also ensured by our ideally situated locations in high-wage countries. For almost 40 years, the development of our company has been based on a partnership model that guarantees independence and stability.

We have modernized our branding to express this positioning even more clearly. It has always enabled us to respond to new challenges with innovative approaches. All of our actions are guided by our clients' needs and the desire to make them more competitive. The transition to sustainability is known to be one of the biggest challenges of our times. That is why we have made it an integral part of all of our services, and the focus of our new slogan: "Innovating a sustainable future."

On behalf of the Helbling Group partners,



Dr. Christian Péclat



Marcel Fäh



621

Full-time equivalents

The number of full-time equivalents with indefinite contracts rose from 589 to 621. With turnover of 8.6%, more than 80 employment contracts were concluded in 2022.

143.9

Revenue (in CHF million)

The 5.9% increase in revenue in 2022 is the third time in a row that the group's revenue has risen, even though the euro depreciated 5% in the course of the year.

39%

Outside Switzerland

Helbling looked after clients from a total of 22 countries in 2022. 16% of the company's revenue was generated with clients from Germany, and 11% with clients based in the US.

490

Clients

Helbling's clients include major corporations, SMEs, and increasingly also start-ups. Most of these are companies from practically every sector in the manufacturing industry. Others include clients from the service and public sectors.

16.6

Cash flow (in CHF million)

The successful business activities of the Helbling Group also generated a healthy operative cash flow in 2022. This guarantees that the group will still be able to fund all of its future investments itself.

12.6

Investment (in CHF million)

We are constantly investing in buildings, workstations, IT infrastructure, IT tools, and laboratory equipment. In this way, we make sure that we appeal to prospective employees and are able to best serve our clients.

1963

Founding year

Helbling has experience from thousands of projects over six decades. This, combined with cutting-edge research and technologies, provides the basis on which our engineers and consultants develop their innovative products and solutions, always in close collaboration with clients.

36

Partners

The Helbling Group has 36 partners and 290 employees who also participate in the company through participation certificates. This participation model ensures stability, independence, and a long-term focus for the company's business.

>65%

Equity ratio

The Helbling Group's solid financing is one of the main prerequisites for its sustainable development. Thanks to its high equity ratio and very solid liquidity, Helbling has a first-class rating among banks for privately owned SMEs.

Innovating a sustainable future

The Helbling Group has its headquarters and four locations in Switzerland, is represented through companies in Germany, Poland, the USA and China, and has worldwide project experience.

About us

The Helbling Group was founded in 1963 and is owned by its 36 managing partners. The internationally active engineering and consulting firm employs some 600 professionals in four business divisions focused on innovation/product development, management consulting, mergers & acquisitions, restructuring, real estate, energy and infrastructure.

Our industry expertise

- Home, Office, and Catering Appliances
- Production Machines and Automation Systems
- Industrial Appliances and Tools
- MedTech
- Diagnostics and Lab Systems
- Transportation and Mobility
- Automotive Industry/Supplier
- Energy and Smart Infrastructure
- Chemical Industry, Pharmaceuticals, Biotechnology
- Food Industry
- Construction Industry
- Infrastructure/Public Sector

Our visions

Clients are our livelihood

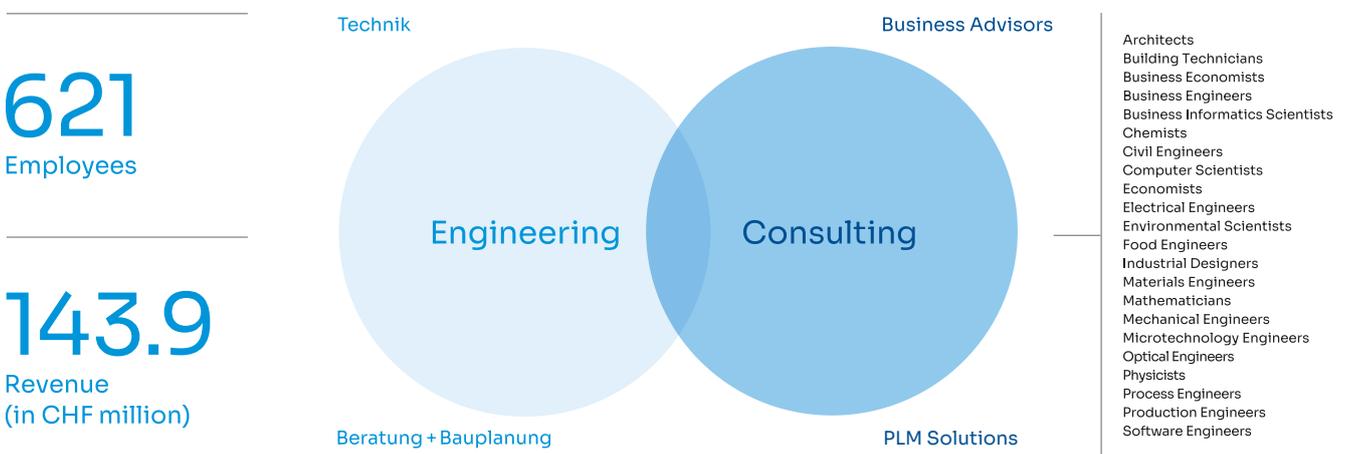
We develop long-term, service-oriented client relationships based on trust.

Employees make markets

We give our staff the freedom they need to develop top interdisciplinary teams and creative services.

Innovation to shape a future worth living for

Our company's culture strives to bring out the best in its people and the environment we operate in. Through our federalist system, we aim to provide a space that gives our people the freedom and assistance they need to innovate.



Strong performance in 2022 financial year

The Helbling Group performed well in the 2022 financial year. Revenue rose 5.9 percent year-on-year to CHF 143.9 million. About 39 percent of this amount was generated outside Switzerland.

The number of full-time equivalents rose in step with revenue, from 589 to 621. Helbling employed a total of 670 people at the end of 2022, representing an average employment level of about 90 percent. The employee turnover rate of 8.5 percent was once again below the long-term average of 10 percent. Although the shortage of specialists is particularly severe for engineering professions, we were able to hire a total of more than 80 new employees in 2022.

Ongoing development of our services

Last year, in addition to working for our clients in almost every sector of the manufacturing industry, we undertook targeted efforts to expand the services we offer in all of our business units. The focus in Engineering was on the further specialization of our various different areas of technological expertise, always with a close eye on our clients' needs. Those needs above all include their ability to adapt to a changing regulatory environment and new standards. One overarching goal of the ongoing development of all of our services in 2022 was also building up our expertise with regard to sustainability. This was a focus both for our internal training activities and for the continuous improvement of our development methods for clients in all sectors, from medical technology and mechanical engineering to consumer electronics. In the consulting business, we mainly expanded and reinforced our services relating to the digitization of manufacturing processes. These include virtual product development using digital twins, digital factory management (MES), and system modeling in conjunction with product lifecycle management (PLM).

New location in Poland

In fall 2022, Helbling Technik (our biggest business unit) opened a new location in Wrocław, Poland. The plan is for this to be built up into a business center for software engineering in the medium term. To some extent, this nearshoring is a response to the ongoing shortage of specialists, which is particularly severe in the field of software development. It also enables us to achieve a competitive cost mix for large-scale projects.

Investment in start-ups and real estate

In 2022, we established Helbling Equities AG to invest in start-ups whose activities are related to our business. These investments are not just intended as purely financial arrangements, but also as a way of reinforcing the company's integration into the start-up and private equity scene, and continuously interacting with new technologies. In 2022 we also invested in real estate for the first time. We were able to acquire a building complex in Wil (SG) in which we had previously been a tenant. This laid a good foundation for developing the location.

Outlook

The future is highly uncertain – in terms of both geopolitics and macroeconomics. Nevertheless, all of our business units expect to continue growing, and are preparing to do so by investing and hiring new employees. We continued the expansion of our location in Liebefeld-Bern, for example, creating space for 35 additional workstations. The confidence on our part that this reflects is based on our knowledge of our capacity to rapidly adapt, as well as our financial stability and independence.

The shift towards greater sustainability – An opportunity and a necessity

The transition towards a sustainable economy is one of the biggest challenges facing us. More and more companies have come to the realization that ecological and social challenges must be dealt with, and are treating the issues with urgency and commitment as a result. They are setting ambitious sustainability goals, and developing corresponding measures to achieve them. One of the main driving forces behind this development is the increasing pressure being exerted by all stakeholders. These include employees, clients, and increasingly also investors, who expect or even demand that the companies they deal with take sustainability seriously.

Optimization alone is not enough

At present, however, many companies are not always clear about how they can go about achieving their sustainability goals. This is because simply optimizing existing business practices is not enough to achieve ambitious sustainability goals. What is needed is a comprehensive transformation into a sustainable company. It begins with a culture of sustainability, which must be firmly established at the company. This is a prerequisite for incorporating the concept of sustainability into a company's strategy, organization, processes, product range, and services. Successful companies work on win-win solutions – for the environment, society, and the economy.

Adaptability opens up opportunities

One of the bigger challenges facing companies at present is ensuring that they remain able to operate and economically viable despite the changing conditions. This calls for a certain degree of resilience, which stems in no small part from a company's ability to adapt and change. Companies that are able to rapidly adapt to changing conditions can tap into new markets, improve their efficiency, and in so doing become more competitive.

Sustainability provides competitive advantages

It is therefore clear that the better a company is able to manage the transition to sustainability, the more varied the competitive advantages that open up to it will be. Sustainable companies find it easier, for example, to attract new employees for meaningful work when there is a shortage of specialists. They enjoy a competitive position in the tender processes of large corporations and government-linked companies, which are increasingly stipulating conditions relating to sustainability. Using energy and resources more efficiently can reduce costs and make a company less sensitive to price fluctuations, supply bottlenecks, and supply chain problems in those markets. Finally, sustainability enables companies to anticipate future regulations better, and in so doing avoid coming under sudden pressure.

Innovation as the most important lever

Compensation alone is not sustainable, because you need to keep doing it again and again. The costs of compensation are also set to rise so high in the future that it makes much more sense to invest the money in sustainable innovation instead. The biggest opportunities present themselves if companies are able to tap into new markets with innovative products, services, or business models based on sustainable technologies and processes. This kind of approach goes well beyond optimizing that which is already in place, and is essential for achieving ambitious sustainability goals. Sometimes such an approach is achievable only in concert with other sustainable companies whose innovations are mutually dependent, and which drive the transition to a sustainable economic system together (see figure).

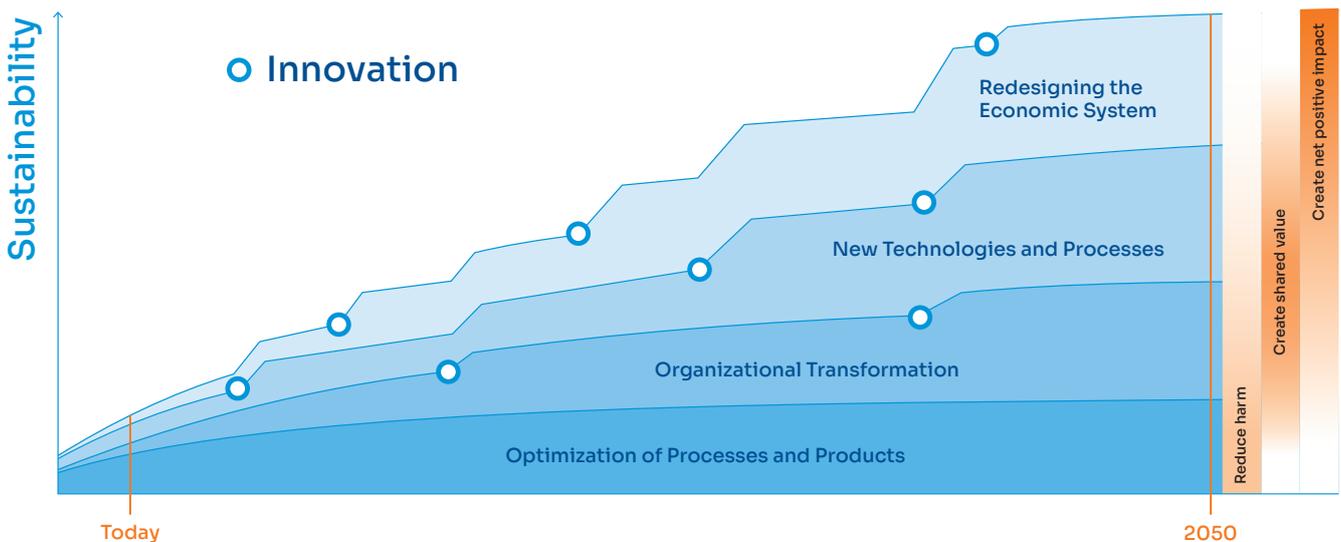
A successful transition through partnerships

How can your company become more sustainable but still thrive economically? What do you need to do to firmly establish the concept of sustainability in your strategy and culture, and also in your organization? How can you identify and take advantage of opportunities for sustainability innovation? How can you best adapt to changing circumstances?

Answering these questions calls for an approach that brings together a wide range of different skills. On the basis of the conviction that change is only possible with this kind of holistic perspective, the Helbling Group has made targeted additions to the range of services it offers. This means that we can help companies make the most of the sustainability-related opportunities that present themselves. We work with our clients to develop sustainable

strategies and business processes, and also develop ecologically and socially intelligent products and systems for them. We also help our clients plan sustainable infrastructures and systems, and make their buildings and factories more energy-efficient.

The multidisciplinary services we provide are based on an understanding of innovation that adds sustainability to the three traditional aspects of satisfying a need, technical feasibility, and profitability. Our new slogan, “Innovating a sustainable future,” expresses the resulting aspiration.



Innovation is the key factor for the transition to a sustainable future.



AMAG Group AG

A future market leader for sustainable, personalized mobility and energy

The AMAG Group – a leading provider of personalized mobility in Switzerland – is consistently pursuing a vision of sustainable mobility. In order to add to its own expertise, it acquired Helion, the market leader for installations relating to photovoltaic systems, heat pumps, and charging solutions. Helbling supported the acquisition by carrying out commercial due diligence.

A clear vision for becoming the leading provider of sustainable mobility and energy solutions

The AMAG Group is pursuing a vision of playing a key role in Switzerland's mobility revolution. Electromobility is an important element of this. AMAG expects more than 70% of all vehicles sold to be battery-powered by the year 2030. Not only does the company want to meet the resulting increased demand for electricity itself, but it also wants to develop into a provider of sustainable energy and mobility solutions.

The coupling of the electromobility and photovoltaic sectors is to become an important element of AMAG's future business model. Based on the full range of services offered in connection with sustainable energy and mobility, decentralized energy communities are to be created in the long term that produce and exchange renewable energy. The driving forces behind this are the proliferation of decentralized photovoltaic systems combined with the existing, likewise decentralized, battery storage in the electric vehicles.

In order to achieve its vision, in fall 2022, AMAG acquired Helion, a pioneer and market leader for the planning, installation, and maintenance of decentralized energy components such as photovoltaic systems, electric charging stations, and heat pumps.

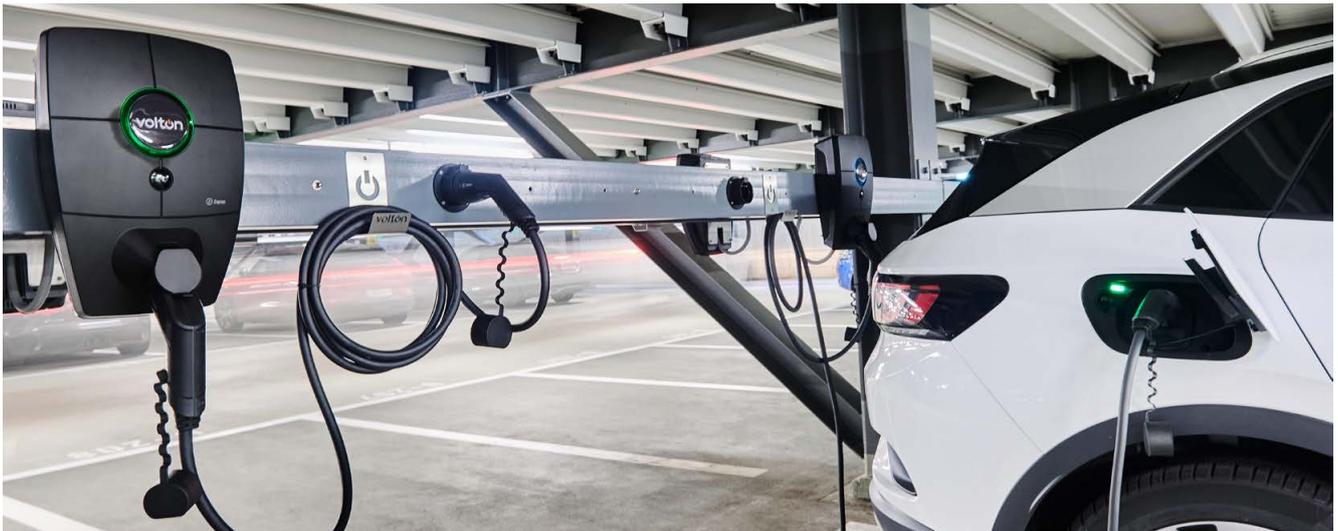


Michael Weber

Director, Member of the Executive Management Team, Helbling Business Advisors, Zurich, Switzerland

Helbling Business Advisors carried out the commercial due diligence under the leadership of Michael Weber, who headed up a multidisciplinary team comprising representatives of the Strategy, Organization & Market, Corporate Finance, and Operations & Technology business units. This ensured that the commercial due diligence provided a comprehensive overview.

Helbling wants to make an important contribution to achieving a future that's worth living in. Focusing on this vision, Helbling's team worked hard and in close partnership with the client's team to ensure that AMAG's sustainable ambitions become a reality.



“The best of both worlds” – sustainable mobility and energy combined

The success of such an ambitious transaction requires careful planning and comprehensive project organization – as well as the right partners. AMAG put its faith in Helbling to carry out commercial due diligence and provide support with the acquisition process.

Helbling worked closely with the AMAG project team and key people in various different functions to estimate the opportunities presented by the market, investigate the benefit to the client of an integrated offering, critically assess the seller’s business case, and identify potential risks in Helion’s business.

Helbling was also involved in the development of the integrated buyer business plan, assisted with the drafting of the investment application for AMAG’s Board of Directors, and developed the first concepts for the potential integration.

And with success. The seller accepted the bid and the transaction was completed as at November 2022 following the signing of the contract in September 2022.

Acquisition followed by integration

Helion was integrated into the new AMAG Energy & Mobility unit in accordance with a comprehensive and detailed process. The intention was for Helion to keep the entrepreneurial freedoms it needs as a growing company. In this case as well, we planned the integration in close partnership with key people at AMAG.

Results/achievements

The transaction was successfully completed in accordance with the planned timeline and for the proposed purchase price. All of the parties involved completed the integration within the shortest possible space of time, laying the foundation for the smooth establishment of AMAG Energy & Mobility.

“Helbling’s team provided us with the best possible advice and support in connection with the successful acquisition of Helion.”

Martin Everts
Managing Director,
AMAG Energy & Mobility
Member of the AMAG Group’s
Executive Board

ESGE AG

The BAMIX® Cordless with charging station

ESGE introduced the first “Bamix” hand blender onto the market in 1954, and it has been a permanent feature in Switzerland’s kitchens ever since. Bamix devices are particularly sustainable thanks to their good quality and extraordinary longevity. ESGE is planning to continue this success story with a cordless model in order to offer more convenience.

Project information

The aim was to develop a battery-powered hand blender with the same output as a corded 200 W model. A rapid charging station would enhance the blender’s user friendliness and mobility. Creating a modern, recognizable design was also a goal, as was achieving the established quality and longevity. Helbling worked on this vision from the concept phase through to series production.

Our contribution

Helbling carried out the following development tasks: drive train simulation, developing cost-effective electronics with Hall-sensor-based BLDC drive, conducting design studies for the device and charging station, tool-compatible design of the hand blender and charging station, integration of electronics and battery cells into the preferred product design, and supporting accreditation.

Results / achievements

The new “magic wand” is 300 g lighter than the corded version, and runs for more than 20 minutes on a fully charged battery. The device offers more output than competing devices on the market, despite being more compact.



Michael Pulfer
Senior Project Manager,
Helbling Technik, Wil, Switzerland

A small team of Helbling experts with years of experience in the field of battery-powered electronic devices was able to miniaturize the drive train specifically for the application. Despite the addition of a battery, the BAMIX Cordless was not any bigger, and the motor provides the same output as the corded version. The close partnership with Helbling’s internal industrial designers meant that ESGE’s requirements could be optimally combined with the technical specifications. The project was carried out by Helbling, from design through to series support.



“Thank you very much for the great, forward-looking partnership, the joint clearance of obstacles, and the creativity when it came to finding solutions.”

Marcel Buff
Project Manager / COO, ESGE AG

The Davos municipal authorities and transport operators

Electromobility concept

Davos hopes to become Switzerland's first climate-neutral vacation resort by the year 2030. The electromobility concept developed by Helbling provides specific recommended courses of action based on a techno-economic evaluation.

Project information

Helbling determined how much energy the fleets of the municipal authorities and transport operators require on the basis of a survey of the operational data. More than 80 vehicles covering around 750,000 kilometers each year were identified, consisting of buses, municipal vehicles, and special-purpose vehicles. Particular attention was given to the seasonal fluctuations, in terms of both the climate and the number of people staying in Davos.

Our contribution

Firstly, Helbling showed that battery-powered vehicles are the best solution for Davos in the long term compared to vehicles powered by hydrogen or biological, synthetic or conventional fuels, both financially and in terms of emissions. Secondly, the project team developed a concrete plan for the successive substitution of the vehicle fleets.

Results/achievements

The electromobility concept also convinced the political decision-makers, and was adopted by the Municipal Council. As a result, in the future battery-powered drive systems will be chosen when buying new vehicles.

“The open and constructive discussions within the project team made it possible for sustainable and practicable fleet scenarios to be developed.”

Simon Müller
Motor Vehicle Technology Team Manager,
Helbling Technik, Aarau, Switzerland



Thomas Bütler
Senior Engineer,
Motor Vehicle Technology Team,
Helbling Technik, Aarau,
Switzerland

Helbling's multidisciplinary team of environmental, energy, vehicle, and mechanical engineers ensured that the situation was analyzed comprehensively, and a professionally sound concept was developed. Domain expertise on the part of the client and interest in the subject matter resulted in a project experience that was enriching from both a technical and personal perspective, in which the timely involvement of local politicians proved valuable to achieving the desired result.



Nestlé System Technology Center

NESCAFÉ Dolce Gusto NEO, the next generation “coffee shop at home” experience

Together with Nestlé, Helbling has developed a new proprietary coffee machine technology that uses home-compostable pods, creating the brand’s best coffee quality and most sustainable system to date.

Project information

The NEO system combines high quality, cutting-edge technology, and sustainability to create the ultimate coffee experience. The paper-based pods come in different sizes with a thin compostable biopolymer lining. They are home-compostable and use less packaging than current capsules. The machine system automatically recognizes the pod type and adapts the brewing unit and parameters accordingly.

Our contribution

After creating and evaluating several concepts, Helbling was asked by Nestlé to develop and industrialize the new coffee machine. With high forces during extraction and the need to recognize and adapt the brewing unit to different pod sizes, the team was challenged to find cost-efficient, robust solutions, fulfilling the high-quality demands on usability, hygiene, and industrial design.

Results/achievements

The NESCAFÉ Dolce Gusto NEO system was launched as planned in November 2022 and will set a new standard for sustainable coffee capsule systems.



Anders Vestreli

MSc in Mechanical Engineering,
Head of Development,
Food & Beverage Systems,
Helbling Technik, Wil, Switzerland

In a few years, the Helbling engineering team developed the system, from concept to start of mass production. At most, the Helbling team consisted of nine engineers and experts, in the fields of systems, mechanics, optics, simulations, testing, as well as a project manager. Defining and following a strict project plan, the team successfully developed this new system platform and machine within the given project budget, and without delays or compromises on the machine quality, machine functions, or industrial design.



“NESCAFÉ Dolce Gusto NEO creates the perfect combination of a great coffee experience, new coffee system and packaging, all in one.”

David Rennie

Head of Nestlé Coffee Brands

Synhelion AG

Sustainable solar fuels to decarbonize the transportation sector

Synhelion produces solar fuels to decarbonize the transportation sector. The sustainable carbon-neutral solar fuels are compatible with the existing global fuel infrastructure and can directly replace fossil fuels.

Project information

Synhelion has developed a unique technology to produce sustainable solar fuels. In this project, the core technical components (Heliostats, Solar Receiver, and Reactor) were coupled to produce syngas on an industrial scale. Syngas is a precursor of liquid fuels.

Our contribution

- Plant control (hardware and software)
- Support in the design of mechanical system components
- Support in risk analysis and development of safety concepts
- Support in project management (from concept development to commissioning)
- Support during commissioning on site in Jülich, Germany

Results/achievements

In 2022, Synhelion has successfully coupled and operated its technology, becoming the first company in the world to produce solar syngas – a precursor to liquid fuels – on an industrial scale using solar heat.

“As a client, we are grateful for the valuable and constructive collaboration with Helbling. It was an intensive and interesting time in which we could always rely on Helbling.”

Philipp Good
CTO, Synhelion



Franck Robin
Senior Project Manager,
Helbling Technik, Zurich,
Switzerland

The project team consisted mainly of machine and process engineers, constructors, and technicians from Synhelion as well as control specialists and machine engineers from Helbling. The solutions for the hardware and software of the extensive control system were specified in close exchange and developed from scratch by Helbling. Helbling also took over the assembly of the control components and supported the commissioning of the system on site. The collaboration between the Helbling and Synhelion project teams was cooperative, goal-oriented, and based on trust.



© Synhelion

Mibelle Group

Development of an R&D function strategy and organizational evolution

The Mibelle Group – an innovative and internationally successful company that is part of the Migros Group – operates in the personal care and beauty, home care, and nutrition sectors. Helbling is helping the Mibelle Group develop an R&D strategy.

Project information

In 2022, the Mibelle Group set itself the goal of developing a function strategy for the Research & Development unit with a focus on implementation. The group's capacity for innovation is to be built up as a crucial competitive advantage in order to be able to offer a valuable benefit for clients in the various different target groups and international markets with the various different sales channels.

Our contribution

The Research & Development team developed a strategy to best meet the needs of the internal business units and their clients while getting to grips with increasing complexity, the efficient use of resources, and the realization of synergies. In order to empower the organization, the organizational operating model was designed so as to support the strategy, and talent management was aligned accordingly.

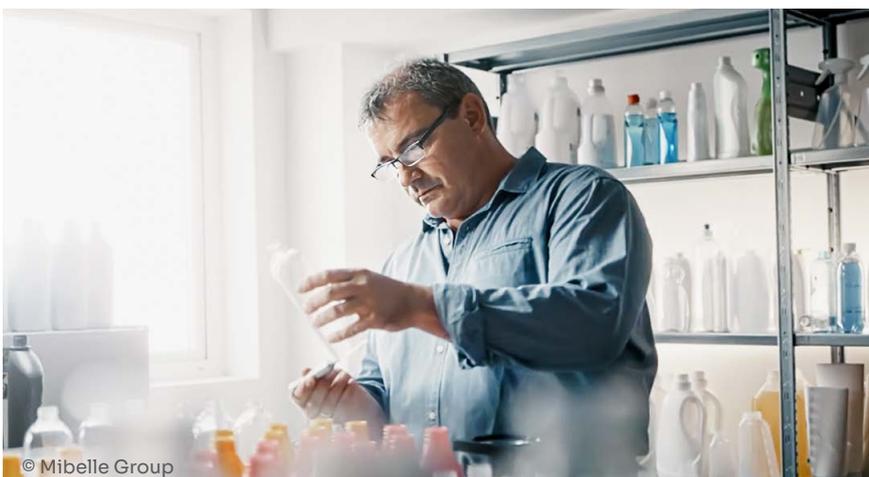
Results / achievements

The functional strategy that was developed was ratified by the Executive Board and the organization changed accordingly. The implementation plan created for this purpose ensures the targeted implementation of the strategy.



Stefan Baldenweg
Member of the Executive Board,
Helbling Business Advisors,
Zurich, Switzerland

The results achieved by the project are the product of the close collaboration between the Mibelle Group, M-Industry, and Helbling. The Research & Development team is characterized by its pioneering spirit, and its valued areas of expertise are crucial to the Mibelle Group's success. The potential on offer was exploited with the involvement of key people from all of the company's units. Helbling Business Advisors from the Strategy, Organization & Market team gave the Mibelle Group their full support with the project.



“The collaboration with Helbling was characterized by openness, respect, and trust, as well as (very importantly) a dialog between equals.”

Bernd Söllner
Mibelle Group, Head of R&D/
Head of Research and Development

Entsorgung + Recycling Zürich

Demolition of a waste incineration plant / construction of the Josefstrasse energy supply center

The waste incineration plant on Josefstrasse in Zurich was decommissioned in 2021 after operating for more than 100 years. A connecting pipe and new energy supply center are required in order for the city to be able to continue fulfilling its supply obligations with respect to district heating, and to connect additional districts.

Project information

The project involves the surface and subterranean demolition of those sections of the waste incineration plant that are no longer in use, while simultaneously building all of the structures and facilities required for the energy supply center (gas/oil boilers, pumps, containers, etc.) and redesigning the surroundings. The operation of the district heating facility may not be interrupted during the construction process. The new facility will be completed by the end of 2023.

Our contribution

Helbling is representing and advising the City of Zurich on all construction-related matters, and is managing the construction site as the general site manager. Helbling is also helping the city set up and manage the project and contract controlling, and assisting it with the reporting on the project progress, deadlines, costs, and risks. Other tasks include procuring, engaging, and managing contractors (planners and traders), and coordinating planners, authorities, and third parties.

Results / achievements

The City of Zurich wants to completely do without fossil energy for district heating by the year 2040. The project makes a significant contribution towards achieving that goal. The project is currently on schedule and within budget.

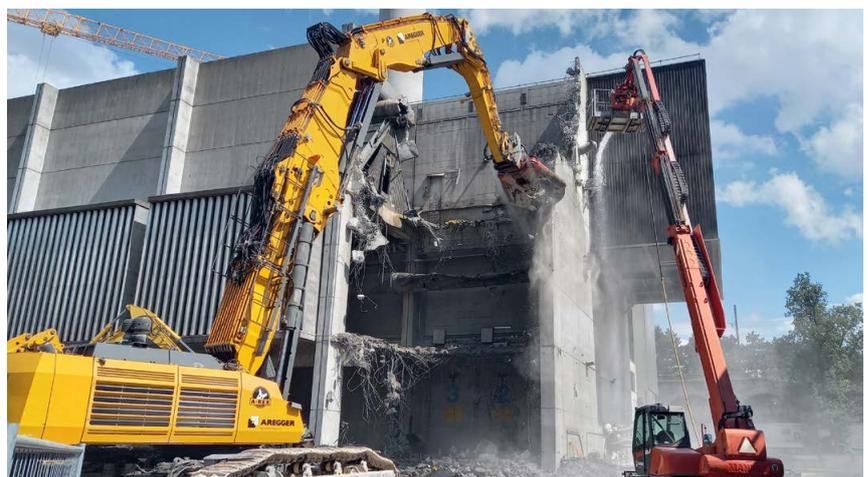
“For us on the ERZ project team, Helbling’s experience, expertise, and large network as an owner representative are of great value.”

Dr. Bernhard Dettwiler
Major Project Manager, ERZ



Cornel Grad
Competence Manager,
Helbling Beratung + Bauplanung,
Zurich, Switzerland

As the assigned owner representative, Cornel Grad mostly works alone on the engagement. He occasionally receives specialist support from the employees of the “underground engineering owner services” team.



Rüschlikon municipality

“Kranich” Lake Water Network Rüschlikon

The municipality of Rüschlikon has set itself the goal of creating a lake water network on the basis of the energy plan. Among other things, the immediate proximity to the lake means that it makes sense to use the lake water rather than alternative sources of energy such as wood.

Project information

The Lake Water Network facilitates a sustainable energy supply, and complies with the cantonal and federal energy strategy. The Network makes an important contribution to reducing greenhouse gas emissions and increasing the use of renewable energy. It also provides an economically attractive energy supply, as well as greater independence from oil and gas.

Our contribution

Helbling Beratung + Bauplanung is helping the Energy Committee of the municipality of Rüschlikon on the owner side with the project in terms of technical feasibility, profitability, and compliance as well as the search for a location for the lake headquarters, and developed variants of the investment and operation model. The next steps towards creating the energy network were implemented together with Rüschlikon Municipal Council.

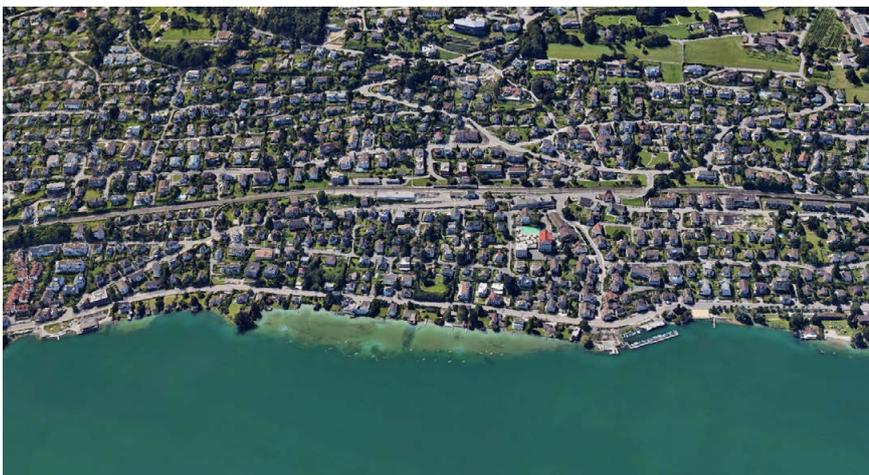
Results / achievements

The technical feasibility, profitability, and compliance of the Lake Water Network were confirmed for each phase, and the next steps were defined with respect to the investment and operation model.



Dr. Christian Bürgin
Competence Manager,
Helbling Beratung + Bauplanung,
Zurich, Switzerland

The operational project team is made up of the Energy Committee of the municipality of Rüschlikon and Helbling's owner advisors. The Energy Committee includes the broad expertise offered by representatives of the municipality of Rüschlikon, the Head of the Infrastructure and Safety department, and the municipality's energy coach. The project is managed by Rüschlikon Municipal Council. During the project, the expertise of the Energy Committee was complemented by the knowledge and experience of Helbling Beratung + Bauplanung AG with regard to lake water network projects.



“Helbling took the right steps towards achieving the goal of this complex project, and developed the necessary decision-making documents for each phase.”

Dr. Urs Keim
Rüschlikon Municipal Council

The DeepWood research project

Disruptive engineering for industrialized wooden construction

Sustainable construction starts at the planning stage. We investigated how to successfully implement a real-time, intercompany, wooden construction collaboration as part of the Disruptive Evolving Engineering & Planning in Wood – DeepWood Innosuisse project.

Project information

The project, which was launched in 2020, explored a new approach to prefabricated wooden construction. It investigated ways of organizing the collaboration between design and planning on a shared platform. Methodologies for doing this were developed using two living labs: the BMW15 multi-unit building in Thun, which does without heating and air conditioning, and a model-like wooden building.

Our contribution

Helbling supported the project for two years as a digitization specialist, offering advice, training, and support. Collaborative processes and component-based design methods can also allow development loops to be automated, which makes it possible for the project team to optimize environmental and economic factors. We support colleges and industry with the targeted use of our modern development platform.

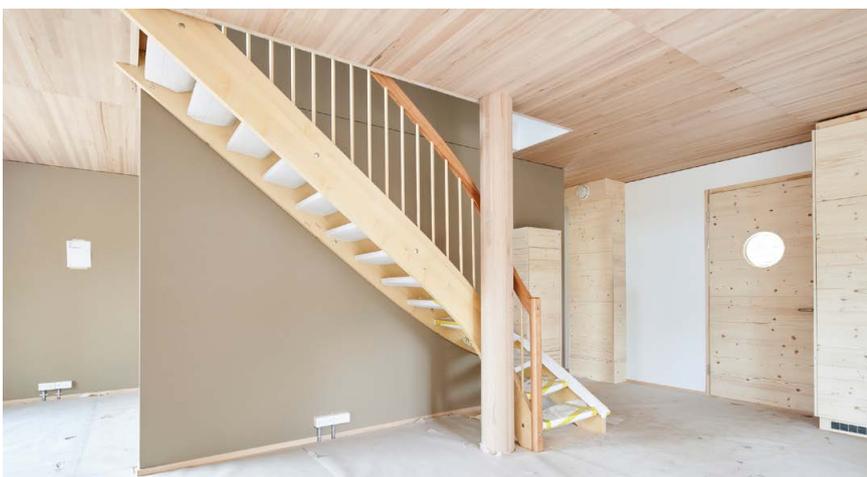
Results / achievements

The project turned out to be a great success thanks to the model-based collaboration that broke with past routines. The result is a disruptive process structure for component-based design using the 3DEXPERIENCE platform, which is suitable for wooden construction.



Rino Kaufmann
Consultant,
Helbling PLM Solutions,
Zurich, Switzerland

Carrying out research as part of a multidisciplinary team consisting of architects and engineers specializing in wooden construction as well as mechanical and structural engineering led to a fascinating clash of cultures, which among other things became apparent in the collaboration and dependencies between the various different disciplines. The project team, which was made up of employees from Lucerne University of Applied Sciences and Arts, Bern University of Applied Sciences, and the partners Timbatec, Dassault Systèmes, Stuberholz, and Helbling, was able to achieve the desired transfer of knowledge as part of the two living labs. However, the project also identified a need for further research, as well as the necessity of rethinking the planning.



“Rethinking wooden construction planning processes is what’s needed right now for the future of sustainable construction in accordance with the SDGs.”

Dr. Sonja Geier
Project Manager, “DeepWood”
research project, Lucerne University
of Applied Sciences and Arts



Helbling Technik

Innovation, together we do it

We are an independent partner for innovation and R&D services, supporting our clients in close cooperation to achieve a competitive advantage and added business value. The support ranges from ideation to verification of the technology and design through to marketable products.

Industries

- Home, Office & Professional Kitchen Appliances
- Production Machines & Automation Systems
- Industrial Appliances & Tools
- MedTech
- Diagnostics & Lab Systems
- Transportation & Mobility
- Energy & Smart Infrastructure

Technologies

- Mechatronics & Robotics
- Optical Systems
- Microtechnologies
- Software Engineering & Information Technology
- Scientific Informatics
- Calculation & Simulation
- Factory Planning & Production Optimization
- Embedded Software & Electronics

Services

- Ideation
 - Product Vision & Scouting
 - Innovation Pre-Projects
- Technology Development
 - Predevelopment
 - Search for Solutions, Modeling & Simulation, Proof of Feasibility
- Product Development
 - Project Management
 - Idea Finding & Conception
 - Detailed Design
 - Industrial- & UX-Design
 - Software Development
 - Technical Risk Management
- Industrialization
 - Experimental Verification, Testing & Proof of Performance
 - Design Transfer
 - Design Verification

The demand for innovation continues unabated around the world. Technological progress, digitization, regulation, cost pressure, strategic management of global supply chain turbulences as well as societal and regulatory expectations regarding sustainability continuously increase the requirements for successful products. We are well prepared to meet this challenge with our business model and a wealth of experience in building and maintaining successful partnerships, including at a geographic distance. At nine locations in Switzerland, Germany, the USA, China and Poland, 51 specialized, business-driven development teams work together in a service partnership with a professional design and laboratory infrastructure. A general lack of highly qualified professionals additionally increases our market attractiveness. We are deeply motivated by the idea of successful products, satisfied clients, and employees who enjoy their work. In this regard, we attach equal importance to innovative strength, implementation competence, reliability, and discretion. We carefully combine our proven development and project management methods in a careful, measured fashion with agile approaches to meet increasing demands for flexibility. Simultaneously, we ensure high performance and adherence to deadlines and costs.



Helbling Business Advisors

Business advice for achieving a sustainable future – put into practice.

We advise manufacturing companies on their existential strategic, operational, and financial decisions. With our highly engaged professionals and our focus on industry, we work with your team to develop sustainable solutions to boost your growth, income, and competitiveness in the future. We will achieve success together.

Services

- Strategy, organization & market
- Value chain management
- Mergers & acquisitions
- Digital process transformation
- Turnaround management
- Transformation
- Sustainability

Industries

- Automotive
- Construction, construction supplies & building technology
- Chemistry
- Consumer goods & retail
- Electronics & electrical engineering
- Energy & intelligent infrastructure
- Health care
- Medical technology
- Food
- Pharma & biotech
- Transport & mobility

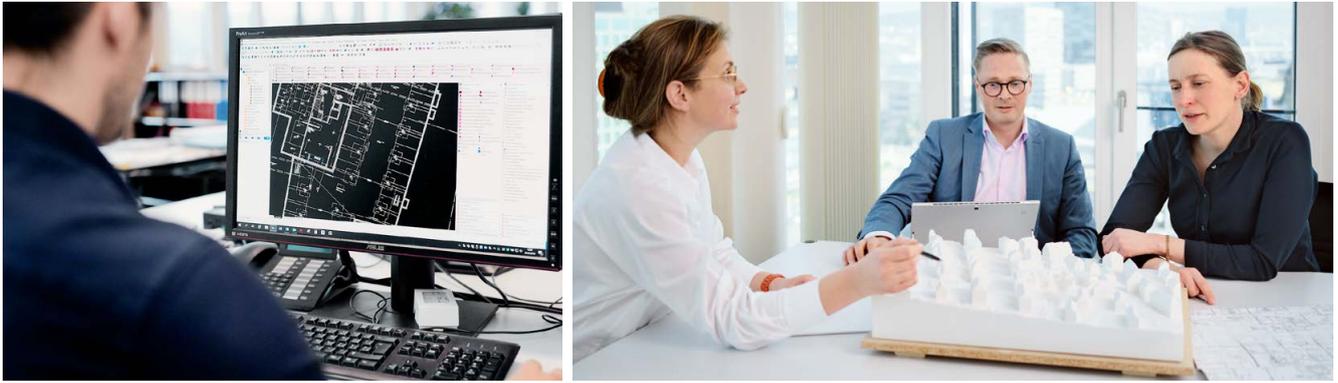
Strategy | Value Chain Management | Digital Process Transformation

Through the redesigning of company strategies and organizational structures, we help our clients achieve differentiated competitive positions, generate profitable growth, and create sustainable business models. In the field of value chain management, we develop efficacy and efficiency programs along the entire value chain, while at the same time optimizing the use of resources and reducing harmful emissions. When it comes to digital transformation processes, we work at the interface between management and technology providers to facilitate the smooth implementation of digital end-to-end processes, from product innovation to the successful fulfillment of the engagement. We are particularly involved in the support of SAP S/4 HANA transformations in this respect.

Turnaround Management | M&A

We develop concepts and measures to achieve the financial recovery and strategic reorientation of our customers. We consistently support their implementation to ensure their survival. Our M&A experts combine experience, knowledge of industry, and creativity, and support our clients on their journey towards successful transactions. As a founding member of Corporate Finance International, we have a global reach and access to investors around the world.





Helbling Beratung + Bauplanung

Your partner for real estate, industrial, and infrastructure projects

Helbling Beratung + Bauplanung acquired a range of new projects in 2022. Coherence within the company was also reinforced. And employees went on an unforgettable day out to mark the 50th anniversary of the unit's creation.

Services & industries

- Energy concepts for clients from the real estate and industry sectors
- Building services engineering, general planning, BIM coordination for real estate and industrial clients
- Master plan / feasibility study, market and location analysis, architectural competition and study contract for real estate and industrial clients
- Project management for construction project owners, representation of construction project owners, user and operator representation for clients from the real estate, industrial, and infrastructure sectors
- Owner consulting and support, BIM consulting, studies, compiling expert reports and guidelines in an executive capacity for real estate and infrastructure clients
- Status analysis / technical due diligence for real estate and industrial clients

Helbling Beratung + Bauplanung manages challenging projects for public and private owners and institutions, from the first idea through to handover ready for occupation. This is in the field of owner consulting / representation for real estate, infrastructure, and transport projects, as well as building services engineering planning.

The company employs graduates and specialists in the various different disciplines. Whether they are architects, building services engineers, construction engineers, or environmental engineers, they all work together as multidisciplinary teams, and are also able to respond at short notice to clients' constantly changing requirements.

In this way, all of the teams are "fit for change," with current topics such as digitization, sustainability, and the energy situation being incorporated into the advice and planning. In 2022, certain projects were once again adapted to the constantly changing geopolitical situation. This makes it all the more important to keep in touch with the client in such cases, and to be ready for changes to the project. Helbling Beratung + Bauplanung acts as an independent company. For clients, this ensures the greatest possible objectivity, a complete focus on their needs, and an absolute free hand. All services are provided in a spirit of partnership.



Helbling PLM Solutions

Your partner for the digital innovations process

Innovation through digital cross-functional collaboration in the enterprise: We offer our clients consulting competence, implementation expertise as well as integration services and draw on the broad and in-depth knowledge of our employees.

PLM Consulting

- Project management
- Project coaching
- Assessment, audits
- Organizational consulting
- Process analysis and architecture
- Methods/Solution Concepts
- IT Architecture/Infrastructure

PLM Solutions

Product-based concept development and implementation:

- **3DEXPERIENCE®** Platform (on Premise/on Cloud)
- CATIA
- ENOVIA
- SIMULIA
- DELMIA

PLM Service

- Training seminars
- Support (on-site & via hotline)
- Company-specific additional development work
- Local support team support

Product Lifecycle Management

We are a leading provider of product lifecycle management services and software solutions. Our core competence and our focus is the digitization of processes along the product lifecycle.

With our projects, we implement a cross-functional and cross-location, high-performance and sustainable collaboration from product development to manufacturing and service. Over the past fiscal year, our specialists successfully designed, configured, and commissioned corresponding solutions for numerous well-known customers.

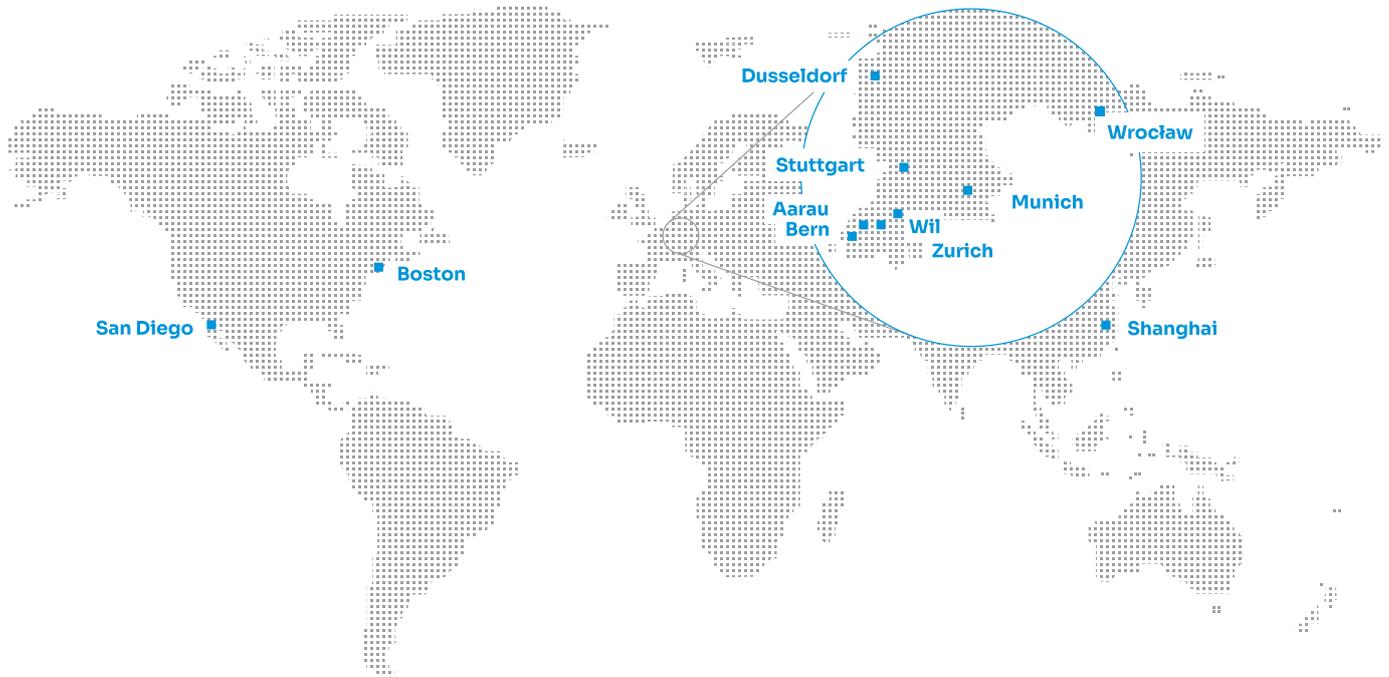
A large proportion of these projects are based on the pioneering **3DEXPERIENCE®** Platform developed by our partner Dassault Systèmes – a system in whose implementation we play a leading role.

Our clients include companies from the high-tech, consumer goods, mechanical engineering, plant engineering, construction as well as aerospace sectors.

With many of them we maintain long-term partnerships. The cooperation is characterized by personal care and local presence. In addition to consulting, sales, and solution adaptations, this includes above all ongoing support in operations.

Global wealth of experience

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