### Why with Helbling

We give you immediate access to a highly qualified and multidisciplinary team that supports your product development.

You get the benefit of years of expertise in material science, MEMS, and micro-technology development. You can depend on a partner experienced in the development of highly miniaturized, integrated products.

We ensure that your product is developed and documented according to the latest standards. We transfer full control and ownership of the design and intellectual property developed during the collaboration.

Helbling – your exclusive, independent contract engineering partner for the development of your microsystems!











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#### Innovation is our driving force

Founded in 1963, Helbling Technik currently has more than 390 employees in Switzerland, Germany, USA and China

Helbling Technik is part of the Helbling Group and functions as a long-term partner in its customers innovation network, under the motto "Innovation, together we do it". The company's engineers, IT experts and physicists use high-performance engineering tools, the latest infrastructure including laboratories, as well as high-quality professional approaches to generate new ideas, implement state-of-the-art technologies and develop successful new products.

#### Contact

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# Active Implants & Microsystems

Do you want to push the limits of technology with your implant? You expect a strong competitive edge from a really small device? Only a tailored actuator can suit your needs?

If you require the support of a highly qualified, multidisciplinary development team, then contact us today. Helbling has the answe

#### **Helbling Technik**

Innovation, together we do it

# A broad spectrum of competencies and expertises

## Design and development of miniaturized High-Tech Systems

Our interdisciplinary team of engineers and scientists specialize in developing products that bridge technologies and engineering disciplines.

#### **Our competencies include:**

- System engineering and requirements management
- Neutral technology assessment
- Microtechnology
- MEMS
- Engineering design development
- System architecture and integration
- Actuators
- MEMS, microoptics and microfluidics
- Hardware and firmware
- Analytical and numerical modeling
- Supplier selection and management
- Prototype realization, testing and verification
- Medical device development
- Project, quality and risk management
- Documentation and design control
- Usability design development
- Design transfer

We specialize in providing miniaturized design solutions for your product. We love challenges!









# A team combining creativity, technology and experience

We are experienced in providing design solutions that integrate complex functions without compromising on safety or ease of use in the following application fields:

#### **Active implants**

- Implanted and bone anchored hearing aids
- Implanted pumps
- Shunt valves
- Intraocular lenses
- Artificial sphincters

#### **Surgical power tools**

- Lithotripters
- Microbriders
- Dental scalers

#### **Drug delivery**

- Re-usable and disposable pumps
- Sustained release devices
- Fluid control and valves
- Flow and pressure sensors



Implantable pump for chronic pain treatment



Auto-focal intra ocular lens

## A professional infrastructure and laboratories







### Comprehensive set of engineering and scientific software packages for:

- Mechanical / Micro-mechanical design
- Electronics design
- Optical design
- Fluidics design
- Multiphysics simulation

#### **Fully equipped laboratories for:**

- Mechanical, electrical, optical and acoustic testing
- Metrology
- Modeling / prototype adjustment
- Microsystem testing



Low voltage, high performance piezo-transducer



Compact driver for resonant power device