Medical Technology Cluster

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Facts and figures: medical technology in Switzerland

Switzerland has a great tradition in medical technology which holds significant future potential. The added value chain is well structured and highly integrated. Basic and applied research is carried out in Switzerland at the very highest level. Switzerland is home to suppliers, manufacturers, and international sales organizations as well as national and international clients. Swissmedic’s efficient system of registration and certification helps bring new products to the market and facilitates quick product launches.

Thanks to Switzerland’s cultural and linguistic diversity, the country is used by many companies as a test market for medical technology products. Research and development is one particular focal area. Manufacturers and vendors of medical technology products invest on average 11 percent of their turnover in innovation.

Facts and figures
• Approx. 1,100 companies involved in medical technology (manufacturing, supply, trading, services)
• Approx. 48,000 employees (1.4% of workforce)
• Annual turnover: CHF 22.9 billion
• Share of exports: 71%
• Export countries: Europe, Asia, USA, Russia, Latin America
• Annual growth rate: 11%
(SOURCE: Swiss Medtech Report 2010)

What is medical technology?
Medical technology products are nonmetabolic products, instruments, devices or diagnostic equipment which help to prevent diseases and/or improve quality of life.

Facts and figures: medical technology in the Canton of Bern

Medical technology is a key area of the precision engineering industry in Bern. The long tradition of the watchmaking and clockmaking industry in the Canton of Bern has boosted its know-how in precision manufacturing and is an important advantage for the successful development of the medical technology sector.

There are approx. 280 medical technology companies operating in the Canton of Bern, primarily as manufacturers and suppliers. In the last years the number of employees in the medical technology industry grew by 20%. These companies employ approx. 7,000 people in the Canton of Bern. Companies such as Medtronic, Haag-Streit, Ypsomed, Straumann, Getlbbach Medical, Ziemer Group, Biel-Air, Dräger Medical, Schwitz AG, Staar Surgical and Bernafon offer attractive jobs. Companies including Stryker, Mathys Medizintechnik and Johnson- Johnson Medical are also located near the Canton of Bern.

Pharmaceutical and biotech companies such as Crucell, Galenica, GistelSmithKline and Kimberly-Clark are also based in the Canton of Bern. CSL Behring is a global leader specializing in the manufacture of plasma products and employs more than 1,000 people in Bern.

The Inselspital in Bern is the most important university hospital in Switzerland and plays a central role in this sector. There are also numerous other healthcare facilities such as regional hospitals, private clinics, rehabilitation centers and laboratories in the Canton of Bern, and the main regulatory authorities for the medical technology industry are located in Bern.

Expertise in medical technology in Bern

Manufacturers
• Electromechanical devices
• Hospital aids
• Disposable items
• Reusable instruments
• Dental technology
• Rehabilitation aids
• Diagnostic and therapy equipment
• Ophthalmology
• Anaesthesia and breathing systems
• In-vitro diagnostics
• Active implants

Suppliers
• Components, assemblies, systems, finished products
• Metal processing
• Plastics processing
• Measurement/control
• Machines / automatic equipment
• Surface technology
• Electronics
• Rapid Prototyping

Dr. h. c. Willy Michel, Chairman of the Board of Directors

“Switzerland is a first-class location for development and production for companies engaged in medical technology thanks to the availability of highly qualified, multilingual engineers and skilled workers from universities, and because it actively promotes technology and know-how transfer, e.g. within the framework of CTI projects.”

Marco Gadola, CEO

“Straumann is a company with a long tradition in the Bernese Jura, and it is the skills of our people that have made us the success we are today. One would be hard-pressed to find people with such an innate drive and such a deep sense of responsibility and commitment to quality anywhere else. We greatly appreciate our employees’ expertise and curiosity and the precision with which they use new technologies and continuously optimize designs and processes. It is thanks to the high-skilled people in the watch Valley and the Canton of Bern that we are able to sell world-class products that live up to the stringent standards of Swiss Quality.”

Walter Iskand, Chairman of the Board of Directors

“Bern is the ideal size for working successfully in various networks. On the one hand this includes the Medical Cluster that was established in Bern, and on the other the University of Bern and the Bern University of Applied Sciences, which permit excellent and straightforward collaboration. The Inselspital University Hospital is another strong partner for research and development. These are the key reasons why Haag-Street chose to locate its headquarters for its activities dating back more than 150 years in Bern.”
Leading companies in the Canton of Bern

The Canton of Bern is one of the leading regions for medical technology companies in Switzerland. To illustrate this, we take a look at selected companies that operate in the various medical technology disciplines in the Canton of Bern (not an exhaustive list).

Bernaflon, Bern
Global leading supplier of innovative hearing assistance systems for the hard of hearing. Research and development, marketing, finance and management are all based in Bern.
www.bernaflon.ch

Haag-Streit, Bern
Manufacturer of medical technology instruments and devices for use in ophthalmology, microsurgery and pneumology.
www.haag-streit.com

Medtronic, Münchenbuchsee
A global leading provider in the areas of heart disease, neurological disorders, vascular diseases and diabetes. Swiss customer service and technical advice for all Medtronic products and treatments are based in Bern.
www.medtronic.ch

Dräger Medical Schweiz AG, Biel/Bienne
Leading Swiss company manufacturing products and devices for use in ophthalmology, microsurgery and pneumology.
www.draeger.com

Schaefer Medical AG, Münsingen
Leading international manufacturer of individual medical technology concepts and solutions that are gentle on the patient. Developed in close cooperation with medical partners, its product portfolio ranges from mobile operating tables to medical accessories to special products for all surgical disciplines and fields of application.
www.schaefermedical.ch

Staar Surgical, Nidau
Staar is engaged in three areas of ophthalmology: grey and green star surgery and refractive surgery, the most important area for the company. The company develops, manufactures and markets refractive implants (implantable contact lenses) which improve the patient’s sight in the -2 to -20 diopter range. This is a segment in which Staar is a global market leader.
www.staar.com

Ziemer Group, Port輪
The Ziemer Group is engaged in research, development and production. Its activities are focused on ophthalmics as well as cornea and glaucoma diagnostics.
www.ziemergroup.com

Greatbatch Medical, Biel/Bienne
The company is active in the development, production and marketing of surgical instruments and implants for orthopedics and traumatology. It particularly produces acetylauramers, surgical screws and plates as well as stabilization trays.
www.greatbatch.com

Technology transfer

The Canton of Bern is home to the Medical Cluster, which promotes networking between companies, technology transfer and continuing professional development. The research being performed here boosts innovation and competitiveness at the very highest level.

Medical Cluster
The Medical Cluster, a network organization for medical technology companies, was set up in the Canton of Bern in 1997. It brings together manufacturers, suppliers, service providers, and R&D companies along the entire medical technology added-value chain. The Medical Cluster operates in the whole of Switzerland and also welcomes foreign companies. Today, the association numbers more than 300 members from all over Switzerland and abroad, although Bernese companies still make up the majority. Its work is focused on activities such as:
• promotion of the innovation process along the research-production-market added-value chain
• knowledge and technology transfer optimization
• provision of forums of encounter and exchange for the industry
• support for innovative young companies
• training and continuing professional development in medical technology and medical IT

The Medical Cluster and the Medtech Switzerland export platform work closely together to promote exports on behalf of the Swiss medical technology industry.
www.medical-cluster.ch

Competence Center for Medical Technology (CCMT)
The Competence Center for Medical Technology (CCMT) serves as a hub for professional technology transfer between academia and industry for the Canton of Bern, the University of Bern, Bern University of Applied Sciences and Inselspital, the Bern University Hospital. The CCMT initiates and supports partnerships between clinics, research institutes and industry. In doing so it is supporting the development of the Bern Biomedical Engineering Network (www.bbeam.ch).

The CCMT’s partners are public and private R&D institutions in academia, Universities of Applied Sciences and healthcare as well as private non-profit organizations. The Medical Cluster and the CCMT work closely together and are both based in Bern.
www.ccmmedtech.ch

Commission for Technology and Innovation
The Commission for Technology and Innovation (CTI) provides funding for R&D projects developed between companies and universities. CTI founded the national Initiative CTI Medtech. This initiative sees itself as an information platform and hub for bringing together potential partners from industry and research in joint ventures and joint projects. The objective is to not only improve products and manufacturing processes but also to integrate new technologies into product development. Each year CTI presents the CTI Medtech Award for prominent work in this field in Bern.
www.cti.admin.ch

Unitectra
Unitectra is the technology transfer organization of the Universities of Bern, Zurich and Basel. Its services support those engaged in research in cooperation arrangements with the private sector or public and private sector institutions.
www.unitectra.ch

be-advanced
With its supra-regional network of contracts, the organization be-advanced is fully committed to innovation promotion and has a particular interest in technology transfer between the business and scientific communities. The aim is to create an innovative ecosystem in the Canton of Bern. be-advanced offers start-ups and small businesses coaching services, access to universities and business partners, and assistance with obtaining financing.
www.be-advanced.ch

Rubino Mordasini, President Medical Cluster
“With strong roots in Bern, the Medical Cluster is currently rapidly developing into the national cluster association with an international reputation.”

Prof. Dr. Ing. Stefan Weber, Director ARTORG
“We want to promote innovation and drive it forward by forging close ties between academic clinical and industrial partners.”
Research and development

Numerous leading research institutions are based in the Canton of Bern and the neighboring regions. The focus of these institutions’ research is on various medical technology disciplines and other medical areas.

**Bern Inselspital University Hospital**

The Cantion of Bern is home to one of Switzerland’s leading university hospitals with an international reputation: the Inselspital. Employing around 7,000 people, with 37 institutes, medical technology equipment worth approx. CHF 200 million and key interdisciplinary research activities, the Inselspital is a significant factor in the economy of the Canton. It has a service agreement for research and teaching with the University of Bern for training approx. 400 undergraduates per year and teaching with the University of Bern and universities of Applied Sciences (BUAS) engineering and IT.

It is divided into various research groups that work closely together. The Inselspital also provides highly specialized services in the area of cutting edge medicine, in this context it concentrates on cardiovascular medicine and neurology. In the cardiovascular field the Inselspital works closely with the Basel University Hospital. [www.imech.ch](http://www.imech.ch)

[www.medizin.unibe.ch](http://www.medizin.unibe.ch)

**ARTORG Center for Biomedical Engineering Research**

The University of Bern’s Artificial Organ (ARTORG) Center for Biomedical Engineering Research brings together several of the university’s core competencies in the field of medical technology and is a research hub for the whole university. The center’s activities include interdisciplinary P&D and teaching focusing specifically on medical technology to support diseased or damaged organs. On the basis of close cooperation between clinicians, engineers, industrial partners and other Swiss technology institutions, visionaries and practitioners work together to develop technical solutions for the medicine of tomorrow.

[www.artorg.unibe.ch](http://www.artorg.unibe.ch)

**Institute for Surgical Technology and Biomechanics**

The Institute for Surgical Technology and Biomechanics (ISTB) continues the vision of the internationally renowned surgeon and deceased founder of the ISTB, Maurice E. Müller. Surgeons, researchers, engineers and companies work closely together at the ISTB on basic and applied research into the prevention and treatment of disease – working from the cell level to the whole locomotor system.

[www.istb.unibe.ch](http://www.istb.unibe.ch)

**Theodor Kocher Institute**

The Theodor Kocher Institute is part of the medical, natural science and veterinary medicine faculty of the University of Bern. The institute was established and its initial research activities financed thanks to the award of the Nobel Prize to Theodor Kocher. The institute conducts research into immune cell migration, vascular morphogenesis, and platelet biology focusing on the blood-brain barrier. It is divided into various research groups that work closely together.

[www.tki.unibe.ch](http://www.tki.unibe.ch)

**Bern University of Applied Sciences**

The core areas of expertise of the Bern University of Applied Sciences (BUAS) Engineering and Information Technology in medical technology are in Signal and Image Processing, Computer Perception and Virtual Reality, Optical Coherence Tomography (OCT), Sensors, Microelectronics and MEMS, Biomedical Engineering, Development of Miniaturized Systems and Rehabilitation Engineering. Key importance is attached to the medical applications in the P&D conducted by the BUAS Engineering and IT. All projects are based on intensive collaboration between medical practitioners, engineers and IT specialists. At the Institute for Human Centered Engineering (HUCE), for example, projects have been implemented in collaboration with industrial partners like Exalos AG and Acrostat AG. More information on the projects: [www.ti.bfh.ch/en/research](http://www.ti.bfh.ch/en/research)

**Swiss Center for Electronics and Microtechnology, Neuchâtel**

The Swiss Center for Electronics and Microtechnology (CSEM), the most important micro-technology institute in Switzerland, is engaged in applied research, product development, prototype development and small series manufacturing, as well as technology consulting. CSEM conducts research and development primarily in the areas of micro- and nanotechnology, microelectronics, system engineering, microbiotics, photonics and ICT. CSEM offers its services to industrial clients. It also develops its own commercial activities, either in conjunction with existing companies or through the formation of spin-offs or start-ups. CSEM’s aim is to further develop Switzerland as a high-tech business location.

[www.csem.ch](http://www.csem.ch)

**University of Bern**

In addition to human, veterinary and dental medicine, the medical faculty of the University of Bern also offers courses for degree programs in:

- Master and PhD in Biomedical Engineering (in close collaboration with Bern University of Applied Sciences)
- Master and PhD in Biomedical Sciences
- Master_s_in_biomedical_sciences/index_eng.html

**Swissmedic**

Swissmedic is the central Swiss monitoring authority for medicines. As a central government institution under public law based in Bern, it is responsible for its own organization and operational management and has its own budget. Swissmedic is part of the Swiss Department of Internal Affairs. The Swiss legislation on medicines forms the basis for Swissmedic’s activities. The Swiss Medicines Act and the first executive ordinances came into force on January 1, 2002, the date on which Swissmedic came into being. Swissmedic now has over 430 employees.

**Swiss Institute for Intellectual Property**

The Swiss Institute for Intellectual Property in Bern is a contact point for industrial property rights (brand names, patents and designs) in Switzerland and in part for the corresponding international registrations. It considers national applications for registration, and issues and administers industrial property rights. These sovereign tasks are regulated by special legislation relating to intangible property rights (brand name protection, patent and design law).

[www.ipech.ch](http://www.ipech.ch)

**Fasmed, umbrella organization of the Swiss medical technology trading and industry organizations**

Based in Bern, Fasmed provides its members with a comprehensive service of information and advice on fundamental, economic, political and legal issues and standard matters concerning the sector. The aim is to maintain a high-quality supply of economic and socially acceptable medical and nursing care services.

[www.fasmed.ch](http://www.fasmed.ch)

**Government bodies and organizations**

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Dr. Herbert Binggeli, Dean

“Research into new methods and applications in medical technology is a central factor in the economy of the Canton. It has a service agreement for research and teaching with the University of Bern for training approx. 400 undergraduates per year and teaching with the University of Bern and universities of Applied Sciences (BUAS) engineering and IT. It is divided into various research groups that work closely together.

[www.istb.unibe.ch](http://www.istb.unibe.ch)

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Prof. Martin Täuber, Dean

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[www.istb.unibe.ch](http://www.istb.unibe.ch)
Trade fairs and networking

Medical Cluster events
The Medical Cluster organizes visits to medical technology and pharmaceutical companies. These Morning Talks open up the doors of leading companies and give the participants the opportunity to talk directly to their executives. Theme-based seminars like the Meet-the-Expert events provide support for and inform medical technology companies on a range of management-related areas.
www.medical-cluster.ch

Biomedical Engineering Day
Biomedical Engineering Day is a Career Day organized by the University of Bern in collaboration with the Bern University of Applied Sciences. It offers medical technology companies an opportunity to meet highly qualified undergrads and postgrads in person and present themselves as attractive employers. The Medical Cluster Awards are presented annually at the Biomedical Engineering Day.
www.bme.master.unibe.ch > events

CTI Medtech Event
The annual Medtech Event of the Commission for Technology and Innovation (CTI) is a forum for Swiss medical technology experts working in research, production, distribution and services. Besides being an ideal opportunity for networking, it is the platform for awarding the CTI Swiss Medtech Awards for nominated projects.
www.ctimedtechevent.ch

Bern Cluster Day
The annual Bern Cluster Day is an information and networking platform for technology companies working in innovation and knowledge and technology transfer. This event is an ideal opportunity for companies to showcase themselves and to build up collaboration and business opportunities.
www.berneinvest.be.ch/events

World Medtech Forum Lucerne
The World Medtech Forum Lucerne, consisting of a congress, trade fair and meetings, brings together the comprehensive and first-class expertise of the Swiss supply industry, science and research and their sponsoring organizations.
www.medtech-forum.ch/medtech_messe

Our services

The Berne Economic Development Agency (BEDA) will provide you with free support and assistance in your search for a location and for setting up your business in the Canton of Bern.

- Conducting individual evaluation visits
- Granting tax relief and other financial benefits
- Procurement of grants for research and development activities
- Support in search for a location and procuring real estate and land
- Information on and clarification of questions relating to work and residence permits, social security matters, building permits, etc.

In order to make your start in the Canton of Bern straightforward we provide you with useful contacts for

- government bodies and federal agencies
- education institutions
- sector and cluster organizations
- financial service providers and risk capital
- advisers and solicitors
- other corporate networks

The BEDA is a one-stop shop for companies wishing to relocate to and expand in the Canton of Bern.

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