SWISS MEDTECH

MEDTECH IN SWITZERLAND 2030

Continuing the medtech success story into the year 2030

The Swiss healthcare system is among the best in the world. Contributory factors include access to medical services for the entire population, the first-class efforts of our medical staff and a sophisticated range of medicines and medical products. State-of-the-art medical devices enable patients to either help themselves or to be assisted by doctors and care providers. Modern medical devices constitute an essential component of our healthcare provision.

Medical devices set the pace for medical progress. Digitalisation is also currently revealing its enormous potential in the healthcare sector. I am observing this in the Swiss medtech companies, and I am also experiencing it first-hand. The advances I have seen as a diabetic in recent years are truly revolutionary. Medical technology innovations will transform the healthcare system over the next decade. Our industry is helping determine how health is maintained or restored.

One cannot plan the future. But it is worth defining goals that give direction to one's own work. This vision for the Swiss medtech industry looks to the year 2030. We deliberately chose a relatively short time period as we don't want to lose ourselves in wishful thinking. We have rather defined ambitious goals for Switzerland as a medtech business location in 2030. They reflect the collective will to shape a diverse and innovative economic sector.

Our devices accompany people in a variety of life situations – literally from birth to death. They support the desire for a fulfilling life free of limitations. These wishes inspired us when we were formulating the vision for Switzerland as a medtech business location in 2030. Improving people's quality of life is the best motivation for the medtech industry to successfully realise its ambitions.

Swiss medical technology is widely regarded as a showcase industry. However, we must not fall prey to a naïve belief in the future. We are facing major challenges. Switzerland as a research and business location can only thrive through stable trade relations with the European Union and development of new markets worldwide. Instead of regulatory hurdles the medtech industry needs more room to manoeuvre, and we must transform the wealth of ideas in our country into valuable devices and services even more consistently than in the past. We address these and other future concerns in this vision for medtech in Switzerland in 2030 – and look forward to collaborating with our partners in business, politics and the wider community.

Dr. iur. Beat Vonlanthen
President Swiss Medtech

We would like to thank all the individuals who helped create this vision
for medtech in Switzerland 2030.

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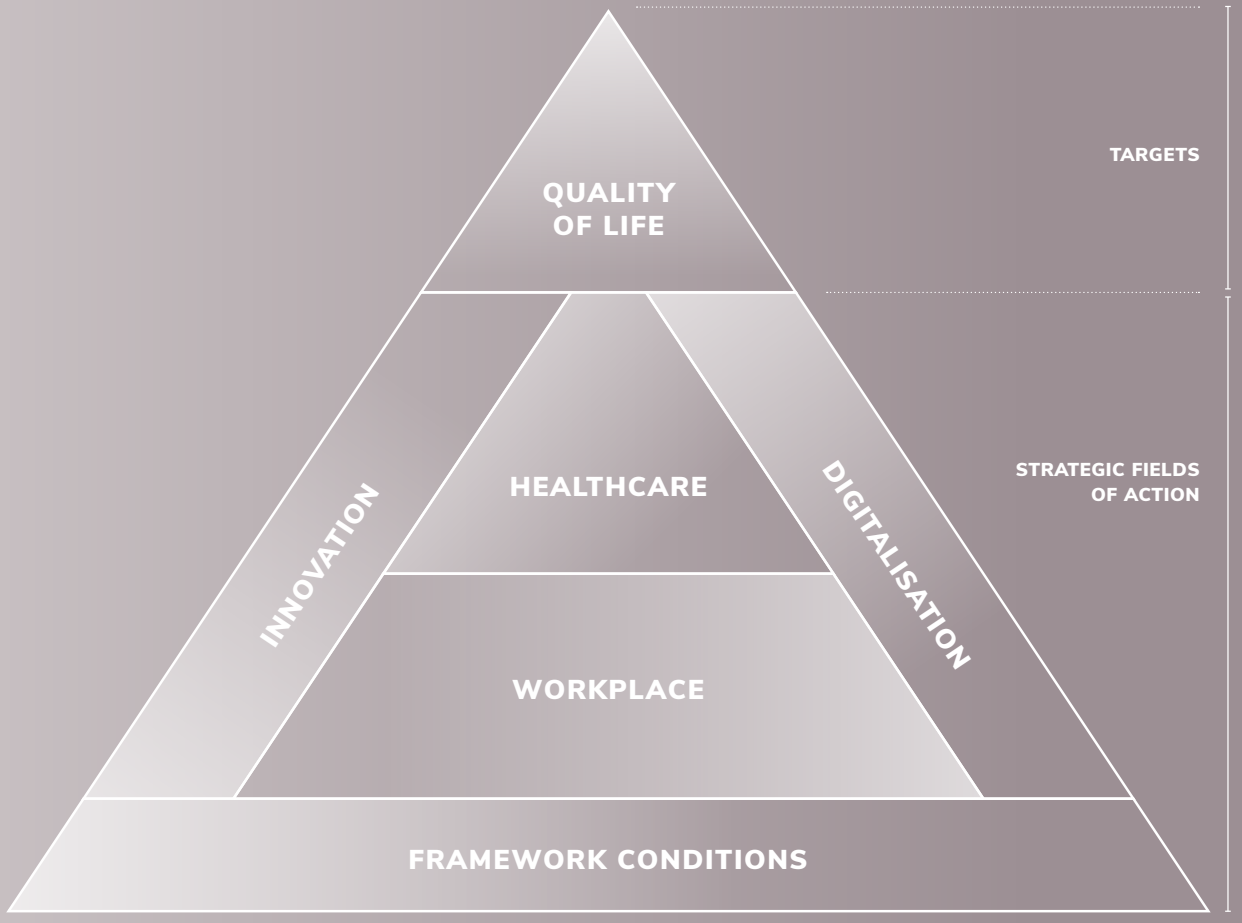

QUALITY
OF LIFE
HEALTHCARE
WORKPLACE
INNOVATION
DIGITALISATION
FRAMEWORK CONDITIONS
TARGETS
STRATEGIC FIELDS
OF ACTION

A strong medtech location creates quality of life

A PEARL OF THE SWISS ECONOMY

A growth industry like Swiss medical technology cannot be satisfied with the status quo. The outlook for Switzerland as a medtech location in 2030 is associated with an expectation that the industry will continue the success story. The bar is high: after a continuous increase in the overall workforce, the investment-friendly industry employs one fifth more individuals than it did ten years ago. Meanwhile, a good 1 in 100 people in Switzerland – a top figure worldwide – work in the field of medical technology. In addition, the 6% average annual rise in sales is significantly higher than GDP growth in Switzerland as a whole. This economic success is based on inventiveness, flexibility and quality awareness. Medical products reduce physical impairments and enable people to lead more vital, mobile, independent lives. This is true both domestically and internationally. Swiss medical technology is strongly export-oriented and contributes 5% to Switzerland's overall sales abroad. Just under 50% goes to the European Union, but non-European markets – particularly the USA and Asia – are steadily gaining ground.

A PILLAR OF HEALTHCARE

Medical technology connects industry and healthcare. Together with the pharmaceutical sector, its companies provide the hardware for the Swiss healthcare system. This encompasses a diverse range of medical devices and diagnostics – from adhesive plasters to chronic wound care, from visual aids to laser eye robots, from fever meters to blood testing devices. In total, several hundred thousand medical devices are available on the Swiss market. Medical staff in doctors' surgeries, hospitals, outpatient clinics, rehabilitation clinics and nursing homes use them to care for patients. Virtually no-one goes a lifetime without needing a crown, bridge or dental implant. When Switzerland's first artificial hip was implanted in St. Gallen in 1962, it was a groundbreaking achievement – and in the last ten years well over 400,000 people have received either a knee or a hip prosthesis. One in three people over the age of 75 have poor hearing and could benefit from a hearing aid. Every year more than 5,000 pacemakers are implanted in Swiss hospitals. Medical technology, as is evident from all these examples, is everywhere. And then there is the latest generation of medical devices such as wearables and implantables – sensor-based devices which continuously record, analyse and transmit vital data, further improving medical care and promoting our health-conscious lifestyle.

A DRIVER OF INNOVATIVE TECHNOLOGIES

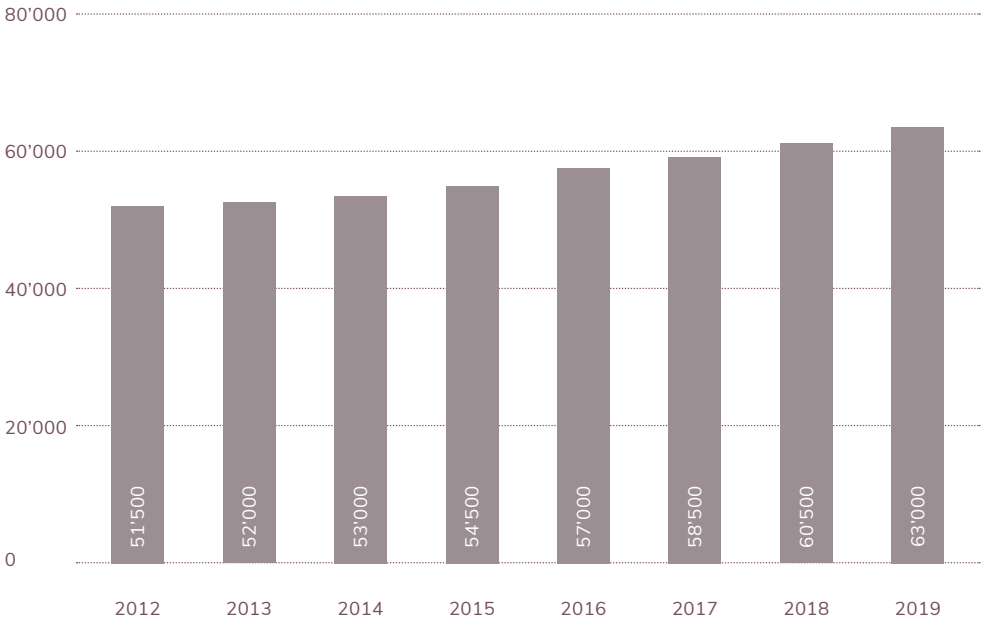
People's need for good health and physical wellbeing is the driving force behind the ongoing momentum and progress in medical technology. Medical devices should fulfil their purpose increasingly effectively, in a more user-friendly and individualised manner. Digitalisation and materials innovation are vital, as they deliver novel applications and increase patient benefit. New technologies are also transforming the field of diagnostics. Groundbreaking sensors, faster data processing and structured data preparation enhance and present information, making it available for decision-making like never before. This in turn enables therapies to be planned earlier and conducted in a targeted manner. Patients receive more precise and reliable information about their state of health and can help shape their own preventive care, therapy and rehabilitation. Digitalisation and miniaturisation enable medical devices to be designed intelligently and specifically for each patient – and to be produced on a microscale. This opens up completely new possibilities for preventive healthcare and disease monitoring. Digital technologies are increasingly shaping medical care – and they will fundamentally change it, as the Gottlieb Duttweiler Institute reports in its study outlining the future: «Technological progress, in particular the growing wealth of data, makes it possible to identify potential problems so early that they can be managed even before an illness develops. The combination of human and artificial intelligence can lead to significant improvements in both medical and work quality – and also decrease costs [1].»

[1] Karin Frick, David Bosshart, Stefan Breit: Next Health. Einfacher durch das Ökosystem der Gesundheit. (Navigating the health ecosystem more easily, in German) GDI 2020GDI 2020

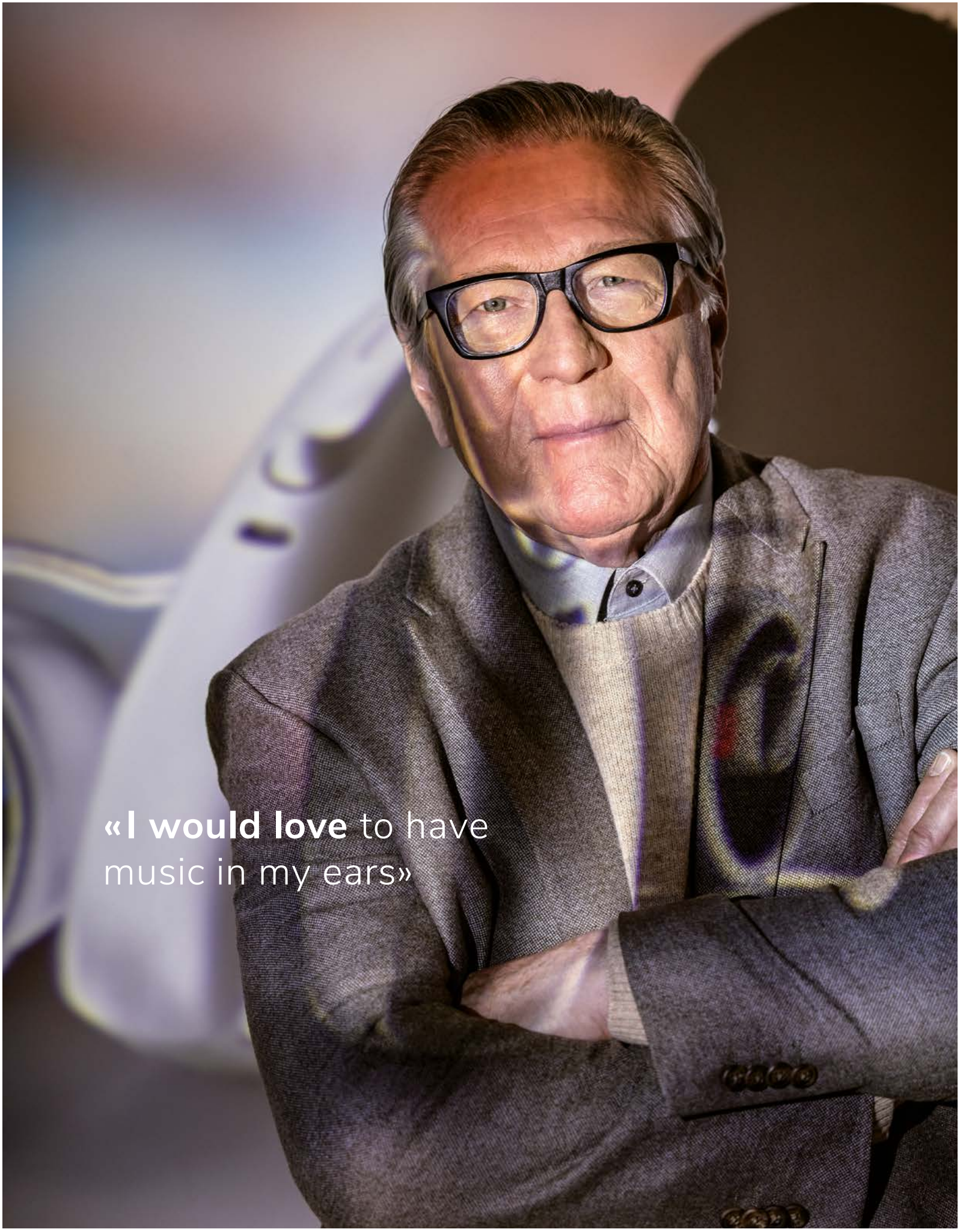
FOR THE BENEFIT OF ALL

To be successful in 2030 the approximately 1,400 Swiss medtech companies must base their business strategies on the future needs of the healthcare market. They will be operating in a challenging environment, as growing demands regarding medtech applications are accompanied by an increase in costs, and new patient safety standards often lead to increased regulation. The Swiss medtech industry will only be able to continue supplying medical devices in 2030 in the established manner if it continues to prosper. To continue the valuable contribution to public health, the medtech industry – supported by the world of politics, the authorities and favourable economic conditions – is pursuing ambitious goals in the strategic areas of healthcare, innovation, digitalisation and the workplace. A strong medtech location in Switzerland 2030 has advantages for everyone: employees and apprentices benefit from attractive working conditions, medical personnel benefit from innovative tools and equipment and, above all, healthy people benefit just as much as the sick, accident victims, the disabled, the elderly and those needing rehabilitation. Medical technology creates quality of life as a result of physical wellbeing, independence and community involvement.

EMPLOYMENT GROWTH IN THE MEDTECH SECTOR



The number of individuals employed by the Swiss medtech industry has increased by an average of 2.9% over the last ten years. Source: Swiss Medtech, Sector Study Swiss Medical Technology Industry (2020)


«I would love to have
music in my ears»

HEALTHCARE


QUALITY
OF LIFE
HEALTHCARE
INNOVATION
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WORKPLACE
FRAMEWORK CONDITIONS

_ We strive to deliver healthcare that maximises patient benefit along the entire treatment pathway.

01 — AIM: PATIENT BENEFIT

We – the medtech industry – share the responsibility for providing the Swiss population with widespread and rapid access to medtech devices and services. Our products are effective and and safe, and thanks to them patients benefit from the best preventive, diagnostic and treatment methods available. The goal and benchmark for our work is to maximise the benefits for the sick, the injured, the vulnerable, people with disabilities and healthy people who use medical producs to maintain their physical wellbeing. We have a holistic view and understanding of the concept of «patient benefit» in a holistic manner. The term refers to the entire treatment pathway and includes factors such as mobility, capacity for work and the chance to take part in social activities. We seek alliances to help achieve the goal of maximising benefits in all areas of medicine. We support the long-term recording and evaluation of quality indicators in order to attain optimal therapy results at acceptable prices. Wrong cost-driving incentives in the maze of the regulatory healthcare system must gradually be eliminated. Providers of medical services should be motivated by targeted incentives so as to achieve lasting success throughout the course of treatment. Patients should become informed partners and participate in therapeutic decision-making.

_ We need a fair and transparent remuneration system to ensure strong Swiss medical technology.

02 — AIM: **REMUNERATION**

We constantly work on improving and developing existing and new medtech devices in order to provide the population with first-class diagnostic and therapeutic products and services. The latter must be made available through medical professionals as well as for self-administration by patients themselves. To ensure this, costs for all proven and new medical products, as well as examinations and treatment methods, should be reimbursed swiftly and appropriately. The tariffs must be determined using a transparent procedure. Together with other players in the healthcare system we are committed to updating outpatient tariffs and the Swiss Devices and Items List (MiGeL). Sustainable innovations by industry and service providers must appear more quickly and transparently in inpatient tariffs. Reimbursement of costs for medical devices should consider the long-term benefits for patients and the general public. We call for new reimbursement models for digital health applications so the full potential for effective and cost-reducing treatments can be exploited. We collaborate with other stakeholders with the aim of better synchronising reimbursement models, avoiding wrong incentives, preserving the established tariff autonomy and counteracting growing governmental influence within our competition-based healthcare system.

Our challenge: Securing healthcare sustainably

OVERCOMING COST FIXATION

Good health is more than simply the absence of pain and discomfort. Being healthy involves physical activity and social exchange, and enables independence, professional integration and inclusion in community life. Health is a valuable commodity, and first-class healthcare the common goal. In a country like Switzerland this means all segments of the population easily being able to access a comprehensive range of medical services. Political discussions which focus solely on the costs of healthcare fall short of the mark. The goal must be to realise the intentions of the Federal Health Insurance Act and create as much «health» as possible through efficient use of resources [2]. The term «value-based healthcare» was coined for systems which aim to create the highest possible level of health for everyone. The concept is a holistic view of the entire treatment pathway, focusing not only on individual success stories but also on other positive effects such as shorter interventions and hospital stays, lower costs in connection with care and disability and prevention of follow-up treatments. Additional favourable economic effects include preservation of employees' ability to work.

LONG-TERM QUALITY OF TREATMENT

Quality assurance is an ongoing challenge. In addition to monitoring the manufacture of exemplary medical devices, it also involves evaluating the long-term quality of treatment. The Swiss medtech sector supports various initiatives designed to ensure the quality of their devices. For example, the industry is a founding member of the Swiss National Hip & Knee Joint Registry (SIRIS). SIRIS tracks most of the approximately 40,000 artificial hip and knee joints implanted in Switzerland each year. The registry, which is run by the non-profit Foundation for Quality Assurance in Implant Surgery, provides detailed evidence about the long-term performance of implants and quality of treatment. In the event of problems, it ensures the traceability of each intervention. Evaluation of anonymised data also facilitates comparisons of materials, surgical techniques and devices. Long-term observations provide information about doctors' surgical results as well as the effectiveness of surgical procedures and implants. SIRIS is currently being extended to cover spinal implants, and other implant categories will be added in the future. A similar platform for cardiac pacemakers and implanted defibrillators has been established under the name CHPACE WEB.

ENSURING FAIR COMPENSATION

The Swiss medtech industry is facing considerable cost pressure. Adequate compensation for services is essential in order to ensure companies' survival. A medical device is covered by compulsory healthcare insurance in Switzerland if its use proves to be effective, expedient and economical. Reimbursement is based on a wide range of tariffs. However, the outpatient-services situation is particularly unsatisfactory. Many procedures have not been adequately reimbursed for years, and innovations in medical technology have either been completely ignored or have not been sufficiently taken into account. It is imperative that a tariff system be created with a clear process for the rapid registration of innovations – including the right to appeal. Inpatient tariffs (SwissDRG) also need revising, as payment for new medical devices is currently inadequately reimbursed for up to five years after market launch. The process for mapping innovations also lacks transparency. Furthermore, the health-technology assessment processes which re-evaluate existing services also require improvements such as increased transparency and the opportunity to object. Overall there are gaps in reimbursement for forward-looking eHealth solutions, such as diagnosis and treatment support systems, telemedicine applications and smartphone apps. In recent years Germany has established an optimal reimbursement solution for digital health applications, i.e. for medical devices and therapeutic approaches the main function of which is primarily based on digital technologies.

[2] Federal Health Insurance Act Art. 43 para. 4bis (SR 832.10, as of 1 July 2021)

VALUE-BASED HEALTHCARE

$$\text{VALUE} = \frac{\text{OUTCOME}}{\text{COST}}$$

The concept of «value-based healthcare» is a holistic approach which spans the entire treatment pathway, and the goal of which is to create the highest level of health with the most efficient use of resources. Source: Illustration Swiss Medtech


«**I would love** to have
a bundle of joy»

WORKPLACE


QUALITY OF LIFE
HEALTHCARE
INNOVATION
DIGITALISATION
WORKPLACE
FRAMEWORK CONDITIONS

_ We position ourselves as attractive employers by offering future-oriented professions within the industry.

03 — AIM: INDUSTRY PROFESSIONS

As a growth industry we create jobs which look to the future. Our high-tech industry uses precision, micro and digital technology to manufacture healthcare goods. It creates a work environment that offers women and men meaningful employment in addition to a challenging job and an attractive salary. The close contact with the growing healthcare sector creates unique job profiles and opportunities, including apprenticeships in manufacturing with optional further professional training, as well as specialist and management careers. We support excellent basic training and promote future-oriented further-training programmes, qualification systems and collaborations in the field of education. Working environments are structured to be family-friendly. We are actively involved in developing educational reforms that are relevant to the sector and will strengthen the dual vocational training system in the long term.

_ We are a leading global production site thanks to the optimisation of core operational processes.

04 — AIM: PROCESS OPTIMISATION

To maintain our position in the face of global competition through use of high-quality devices, we consistently implement the principles of process optimisation (Operational Excellence) throughout our Swiss production site. We achieve above-average productivity through maximum value creation, short lead times, reliable manufacturing processes, digitalisation and automation. We promote industry-wide comparison of key performance indicators and the sharing of experiences between companies – supplemented by intensive knowledge transfer from colleges and universities. We use this basis to implement state-of-the-art production concepts. In the complicated world of increasing product individualisation and industrial serial production, Switzerland's medtech production location has become a global benchmark when overall costs are considered.

_ We significantly contribute to achievement of «net zero» targets.

05 — AIM: SUSTAINABILITY

We are guided by the Sustainable Development Goals (Agenda 2030) as adopted by the United Nations in 2015. We view sustainability as a comprehensive commitment to environmental and climate protection, widespread prosperity and international cooperation. We support the development of industry-wide standards which evaluate the environmental footprint of medtech companies and devices. We take the entire value chain into account when implementing pilot projects that set industry-wide standards for reduction of greenhouse-gas emissions and energy and resource consumption. We promote commitment to sustainability within the industry by providing a wide range of information and training opportunities.


«I would love to have both
feet firmly on the ground»

Our challenge: Fine-tuning the Swiss workplace for excellence

STRENGTHENING CAREERS FOR SPECIALISTS

The success of the medtech industry is largely based on the availability of qualified personnel, but there is a shortage of well-trained young people, especially regarding production-related apprenticeships, product development and specialist areas such as marketing approvals. Some industry jobs have a poor image associated with limited career prospects. Too few young people see the medtech industry as a modern employer. The dual vocational education and training system – a traditional strength of Switzerland – is under pressure as a result of progressive academisation. International recognition of professional qualifications is fragmented. Political hurdles hinder the influx of skilled foreign professionals, on whom the industry is heavily dependent. Initiatives such as FutureMEM are aimed at modernising training programmes in the mechanical, electrical and metal industries. The medtech industry needs tailored educational programmes – from basic vocational training to universities of applied sciences – as well as the introduction of qualification-based degrees such as a «Professional Bachelor» for higher levels of occupational training. Specialist careers should be promoted (e.g. via credit systems) and occupations involving production should be made more attractive to women.

ANALYSING PROCESSES FOR WEAKNESSES

Swiss quality and precision are in demand, especially in medical technology. Medical applications impose stringent requirements as regards on the safety and reliability of devices. The medtech industry is faced with having to reconcile the highest quality standards with financial efficiency in manufacturing. In recent years, the industry has demonstrated its resilience to crisis and has maintained its growth rate. If the industry wants to manufacture competitively in Switzerland – a high-wage country – it must consistently optimise its core processes to ensure effectiveness and efficiency. Lean Management, Six Sigma and other «Operational Excellence» concepts are on the table but are not yet being implemented consistently enough.

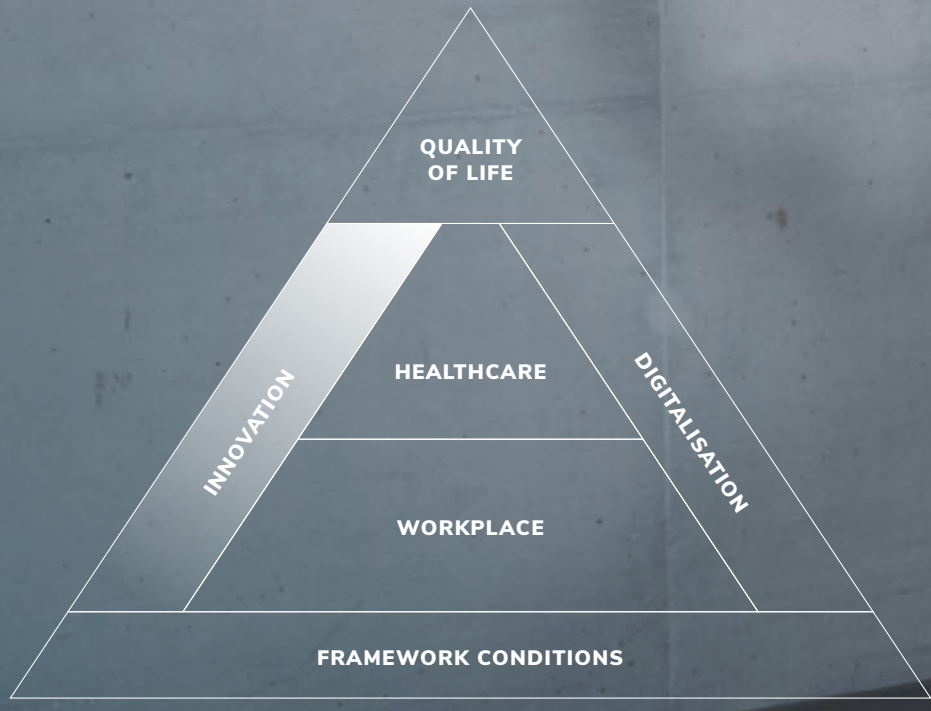
STEP BY STEP TO SUSTAINABILITY

The aim of the «European Green Deal» announced by the European Commission in 2019 is to make the European continent climate-neutral by 2050. The need for climate-neutral, energy-efficient and resource-conserving business operations poses major challenges for the medtech industry. Compliance with sustainability standards will become increasingly important when it comes to winning government contracts. The first companies are committing to the Federal Council's net-zero target, according to which Switzerland must not emit more greenhouse gases in 2050 than natural and technical reservoirs can absorb. Production companies with high levels of energy consumption have signed voluntary target agreements to reduce usage and CO_2 emissions. However, very little systematic environmental data has been collected by the industry, and strategic environmental targets are often lacking. One challenge is that environmental pollution is frequently concentrated at the earlier stages of production. It is therefore essential that the entire value chain be included, to ensure credible sustainability management.

BAROMETER FOR MEDTECH CONCERNS

261 executives from Swiss medtech companies have listed «a shortage of skilled workers» as their top problem on their Barometer of Concerns (as % of all responses). Source: Swiss Medtech, Swiss Medical Technology Industry Sector Study (2020)

INNOVATION


QUALITY
OF LIFE
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DIGITALISATION
FRAMEWORK CONDITIONS


scewo

_ We maximise our potential for innovation through targeted use of subsidies and venture capital.

06 —— AIM:
TRANSLATION

In-house research and development (R&D) activities and efficient public research institutions provide the foundation for innovations in medical technology. To fully exploit this potential we improve the translation of innovative concepts into marketable devices and business models. Swiss innovation funding not only supports new medical products up to the proof-of-concept stage – as in the past – but also promotes promising developments through to market maturity. This does not require more funding, but rather a targeted reallocation of existing funds for innovation projects with the greatest market potential. It should now also be possible for state grants to be paid straight to companies. Easier access to venture capital is also needed for start-ups and SMEs, in order to cope with the cost-intensive and (compared with other industries) lengthy development phase. We call for the National Bank to be given the flexibility to invest venture capital in innovative business ideas, as is the case with pension funds. We establish and support platforms that make the available financial and consulting services more visible. Furthermore, companies should be able to use the devices they develop together with academic institutions under fair conditions. Licensing agreements are structured accordingly.

_ We position Switzerland as a leading location for clinical trials.

07 —

AIM:
CLINICAL TRIALS

The innovative strength of Swiss medtech companies is largely based on data from clinical studies which demonstrate the safety, effectiveness and quality of medical devices. We want to strengthen Switzerland as an outstanding research location. Clinical trials will be approved quickly and conducted without compromising ethics or patient safety. To achieve these goals we engage in dialogue with health and regulatory authorities, ethics committees and professional medical and patient associations. Companies contribute their expertise to clinical research. Their insights from industrial practice are an indispensable resource which strengthens Switzerland's position as a centre of research and innovation.

Our challenge: Clearing the path for innovation

PARTNERSHIPS FOR INNOVATION

Every year around 10,000 new or improved medical devices are approved on the European continent. However, this high number does not fully reflect the innovative strength of the industry, because behind every single approval there is often a multitude of innovations. For example, a new implant may incorporate a system involving a hundred or more product variants, as well as instruments for surgery and aftercare. The strength of the Swiss medtech industry is the result of productive collaboration with researchers associated with ETH Zurich, as well as other universities and universities of applied sciences. Other key medical-application partners include physicians, nurses and, in many cases, physiotherapy and rehabilitation providers. Well-informed patients also play a central role. Although our companies' R&D projects are supported at an early stage by Innosuisse (among others), not enough government funding flows to projects with proven market potential. It would therefore be advantageous to redirect funding towards results-oriented industrial projects. Innovations in terms of novel materials (e.g. long-lasting implants), smart devices (e.g. «smarter» insulin delivery) and the development of patient-specific devices are crucial for the industry. The human element behind the innovation process is often underestimated – successful implementation requires teams with a mix of diverse skills.

HURDLES RESTRICT TRANSLATION

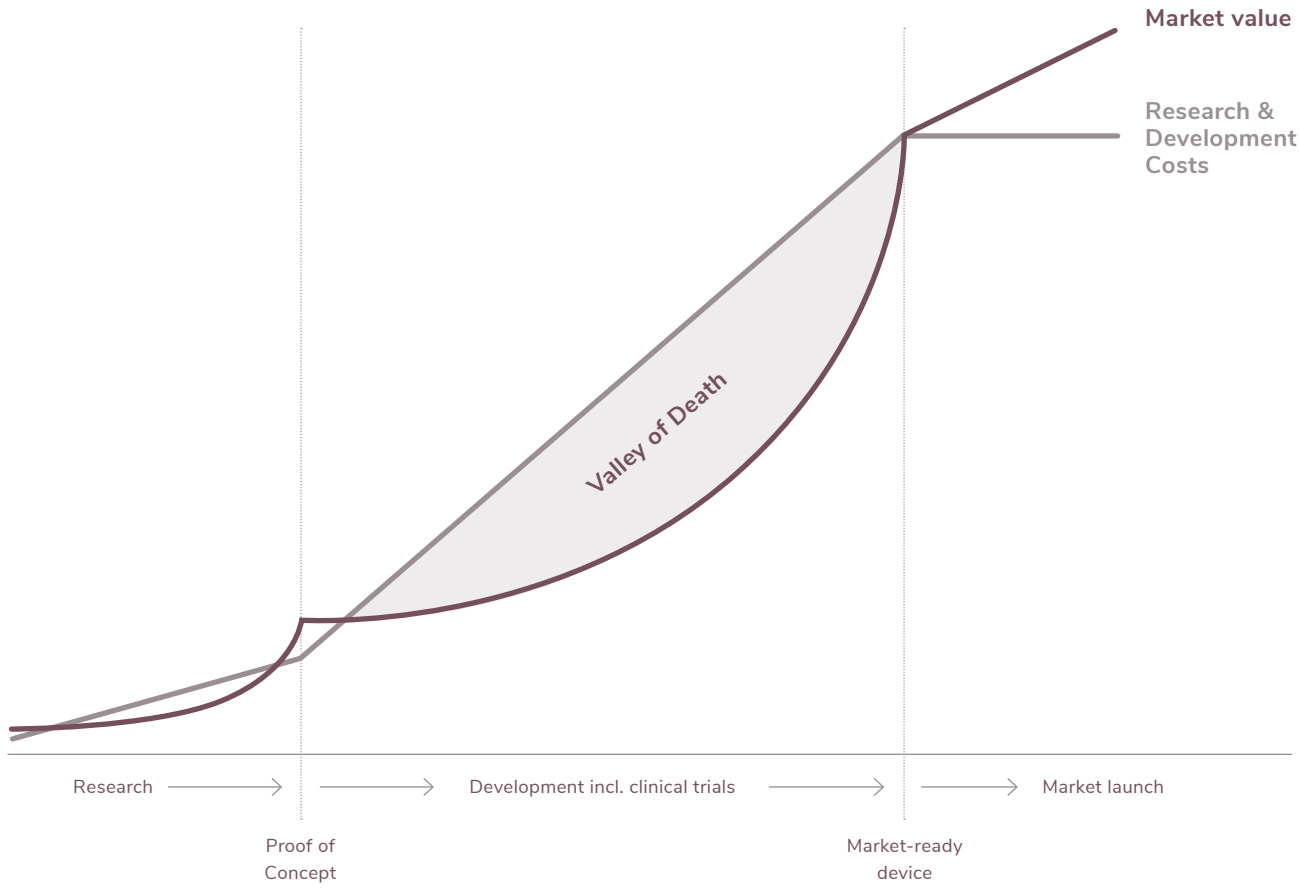
It often takes years of research and development before an innovative medical device is ready for end users. When it comes to research – the step from idea to prototype – Switzerland is well positioned. The number of medtech-related scientific publications is high. No other country produces more patents relative to its population[3]. However, resourceful ideas often fail on the path from prototype to approved device, owing to the «Valley of Death» problem. This is despite Swiss medtech companies investing large sums (approximately 10% of sales) in R&D. One crucial reason for this translation gap is often the lack of willingness or ability to invest upfront in the multiyear development phase – including the mandatory testing and trials. Increased requirements as regards clinical evidence have recently intensified this problem. In light of this, government funding must no longer stop at the proof-of-concept phase but must also extend and cover multiyear development up to a market-ready device.

GROWING IMPORTANCE OF CLINICAL TRIALS

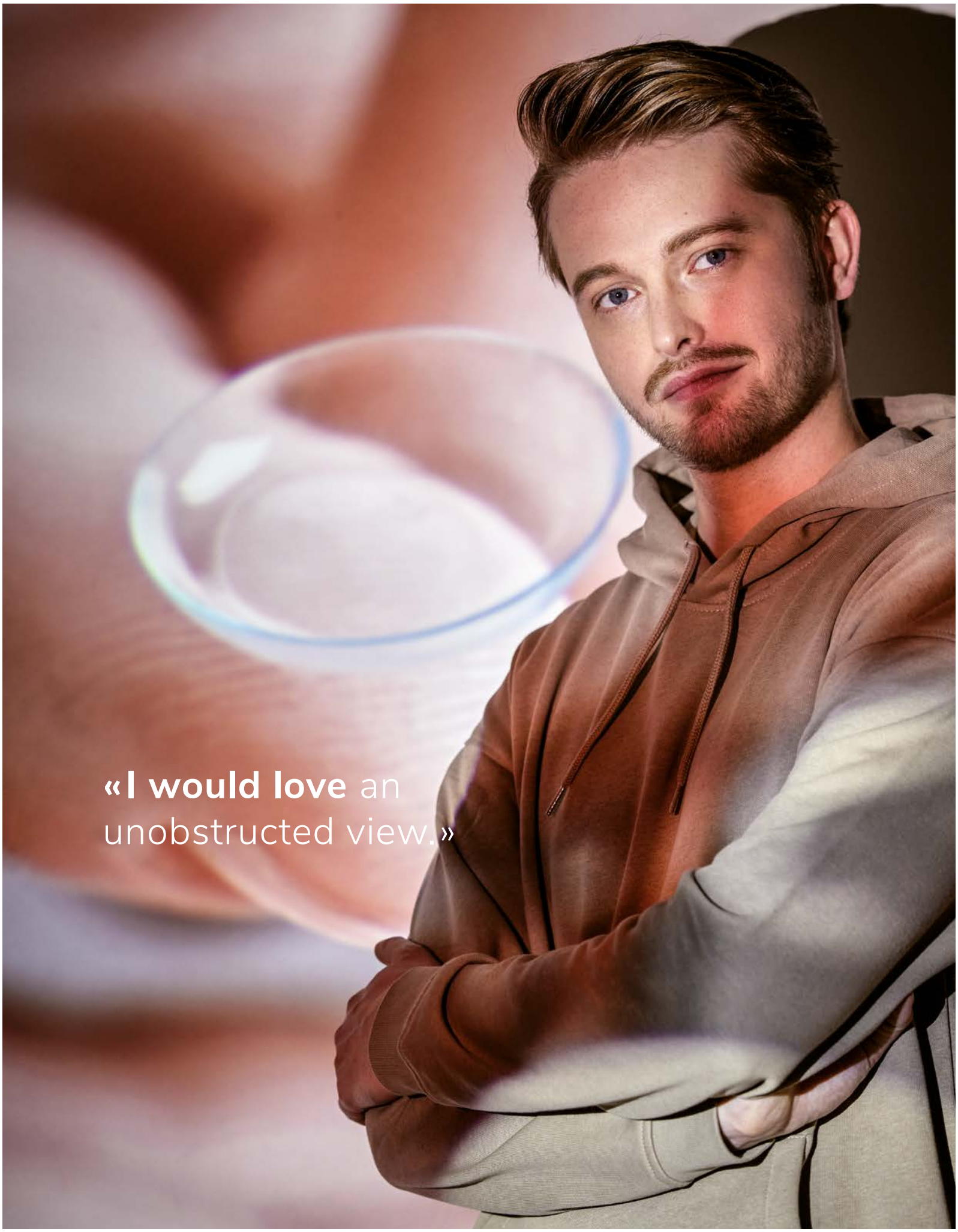
Clinical studies are of crucial importance in the development of new medical devices under EU regulations. They are a key element within an authorisation process which is graded according to risk classes. The studies must be approved by one of the seven Swiss ethics committees and authorised by Swissmedic. Clinical trials directly benefit patients. Individuals often participate in studies so they can be the first to benefit from medical innovations. Dozens of studies involving up to several hundred participants each are conducted in Switzerland every year. The number continues to increase owing to new regulatory requirements in Europe. The sector now faces the challenge of providing enough information and education to create a favourable climate for expansion of clinical research in Switzerland. Proven partnerships with the authorisation and supervisory authorities (Swissmedic), the ethics committees (Swissethics) and the professionals responsible for the studies provide a solid basis for this task. It is also essential to work together with the responsible and informed patients and citizens wanting to participate in clinical trials.

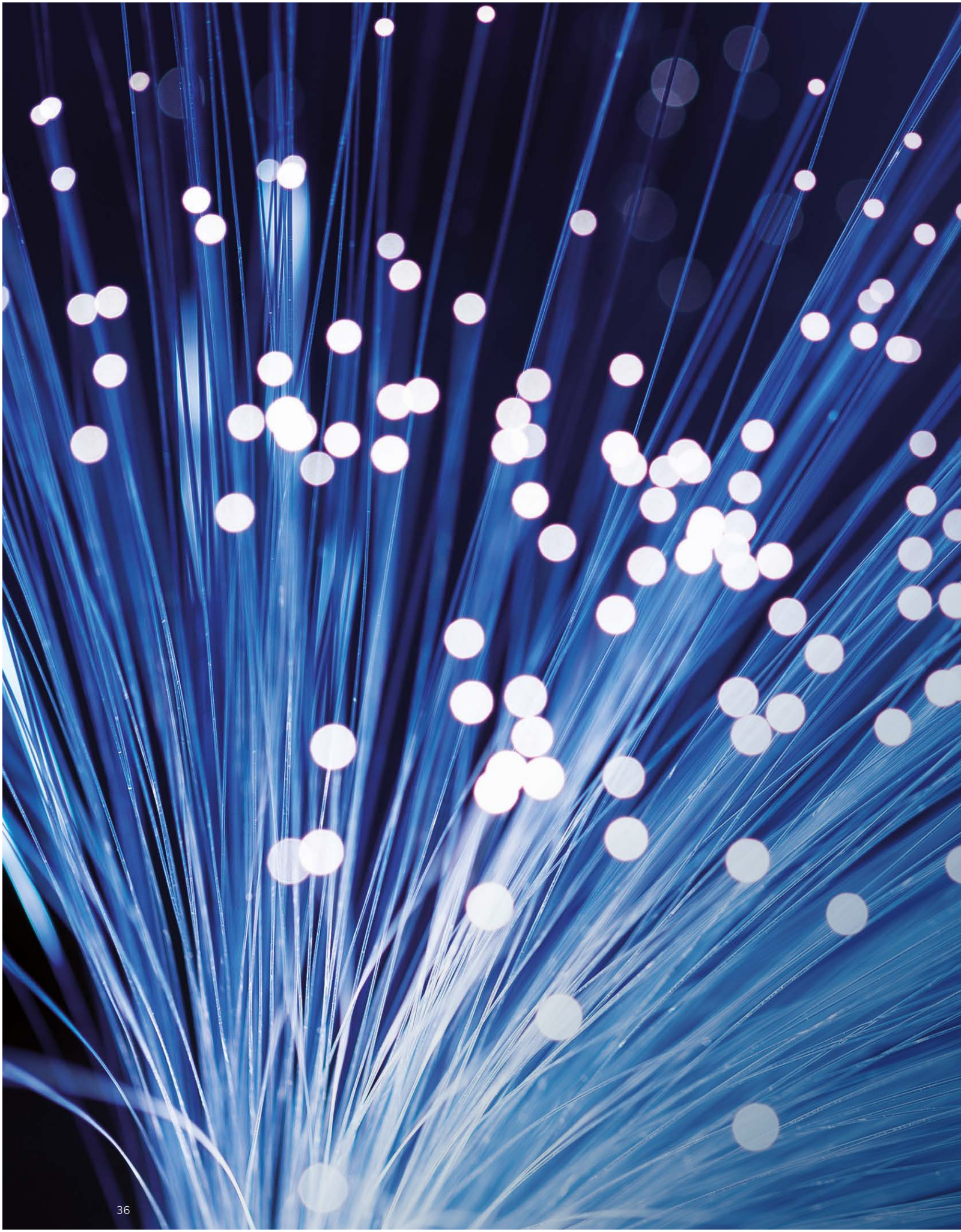
[3] Sector Study Swiss Medical Technology Industry (2020), pg. 31

FINANCING GAP IN THE DEVELOPMENT OF INNOVATIVE DEVICES



Development of a medical device – including clinical trials – generates costs not yet compensated for by a product of value. Companies face a «Valley of Death» which can only be overcome by financing the up-front investments themselves, or by raising venture capital & other funding. Source: Illustration by Swiss Medtech


«I would love an
unobstructed view.»



DIGITALISATION

_ We utilise digital technologies to access high-potential areas of business.

MEDTECH IN
SWITZERLAND 2030
/DIGITALISATION

08 —— AIM:
DIGITAL PRODUCTS

Digitalisation is a key influencing factor for the competitiveness of our industry. We actively shape the digital transformation by further developing our devices and services through introduction of the most advanced digital technologies, and by implementing new business ideas and medical-technology applications. To this end we work closely with research and education, and incorporate our established strengths into purposeful collaborations. The trend is towards data-based medical devices that use health data such as vital signs for «smart» applications. To promote medical-technology innovation and facilitate administrative processes, health data must be shared electronically by the various players in the healthcare system. We are actively involved in the political debate about the much-needed digitalisation of the Swiss healthcare system. We inform the public about the potential of new eHealth technologies and initiate and support forward-looking pilot projects.

_ We achieve key competitive advantages through digital networking along the value chain.

09 —— AIM:
VALUE CHAIN

We use the latest information and communication technologies for networking – within companies and upstream and downstream of operations along the value chains. Linking of tools from R&D and production results in shorter development times. We acquire data via modern sensor technology and integrate the web-based exchange of information into production (Internet of Things). Digital recording and evaluation of production data optimise production monitoring, fault detection, material flow control and many other operational functions. Digital technologies set new standards in terms of manufacturing and product quality, while also benefiting process reliability. Digital documentation of production history is essential in order to achieve traceability – one of our industry's regulatory requirements. Digitalisation of all areas of the company necessitates the availability of qualified IT specialists. Training and continuing-education programmes must be tailored to these new requirements.

Our challenge: Making digitalisation a reality

MULTIFACETED TREND

The megatrend of digitalisation is directly shaping the medtech industry. Digital technology facilitates the creation of innovative medical products, while at the same time enabling breakthrough business ideas to access the healthcare market. In the field of manufacture companies in the medtech industry are also confronted with dynamic advances in information and communication technologies. The phenomenon of digitalisation has impacted the entire healthcare sector and is fundamentally changing medtech companies' operating framework. Fitness and health apps are now very popular, and are likely to increasingly fulfil medical functions. Another trend involves the recording of diagnostic and treatment data in electronic patient dossiers. Access to health data and the development of innovative usage concepts by researchers and the medtech industry enable more efficient therapies. Digitalisation is also allowing providers from outside the sector to enter the healthcare market and challenge established business models. Switzerland needs framework conditions in which the potential of digitalisation can be fully exploited.

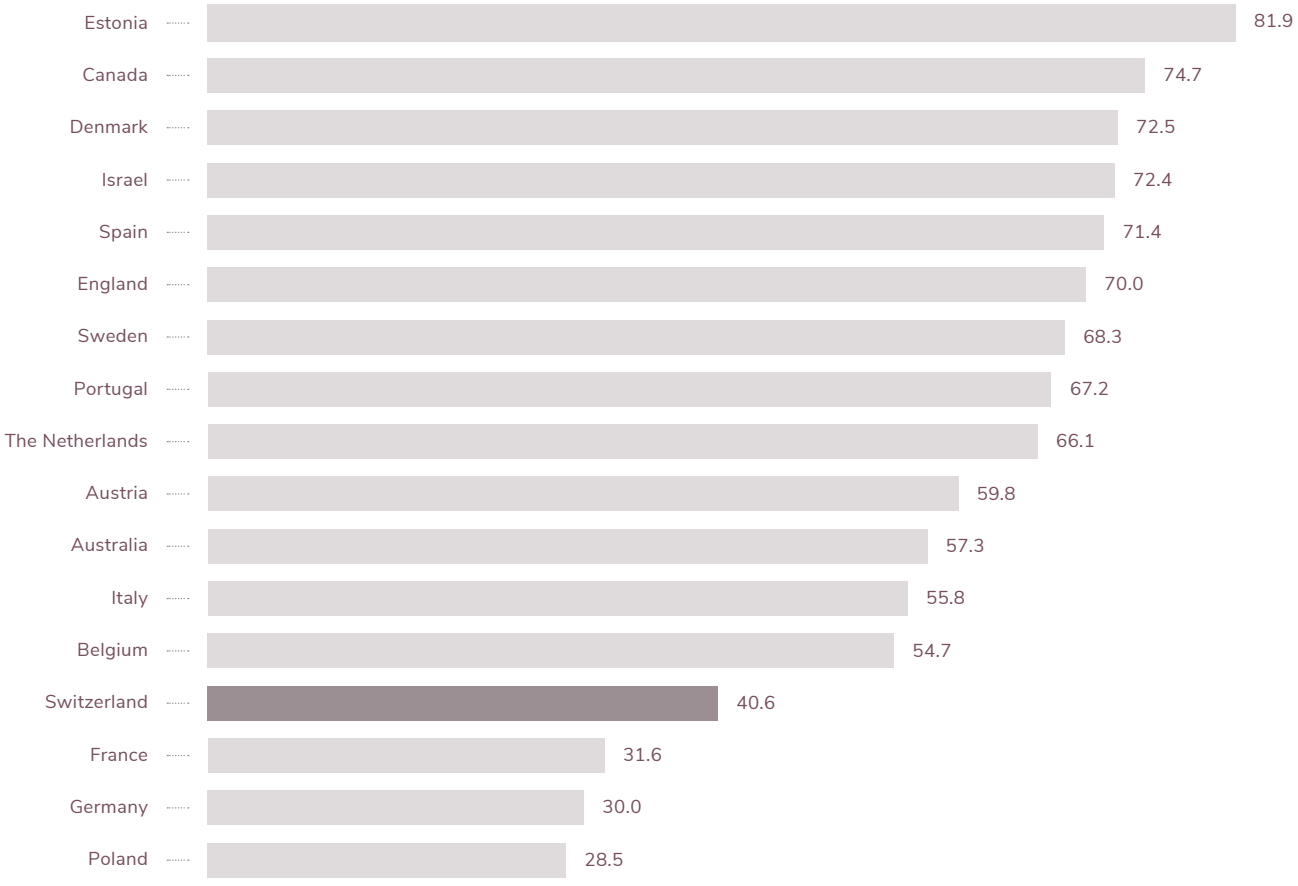
MEDTECH THINKING DIGITALLY

Digital technologies offer fascinating growth potential for the medtech industry. Traditional medical devices are being transformed into smart devices, e.g. when an app facilitates direct communication between a glucose meter and an insulin pump. Software tools – including augmented and virtual-reality visualisations – are already helping surgeons plan and perform hip replacement surgery. Surgical robots built using Swiss microtechnology expertise help insert ear implants. Increasingly, medtech products are no longer objects but software solutions or smartphone apps used to support diagnostics, treatment and care. Telemedicine is also becoming more and more prevalent in healthcare. The Swiss medtech industry must not rest on its laurels as a world champion in terms of quality as it is confronted with a double challenge. On the one hand it must adapt digital technologies and develop original cutting-edge products to meet its own needs in a market dominated by foreign technology groups, and on the other hand it operates within the highly regulated Swiss healthcare system, which lags significantly behind that of advanced countries in terms of digitalisation.

CLOSING GAPS IN PRODUCTION

In addition to planning and controlling operational processes, IT systems have also revolutionised manufacturing, scheduling and administration in recent decades. Diagnostic tests are evaluated automatically using high-throughput technologies. Currently, medtech companies are increasingly facing the challenge of «smart»-networking operational subsystems – from planning and manufacture through to distribution processes – while also integrating upstream and downstream players along the value chain (Industry 4.0). A survey involving around 300 companies in the Swiss mechanical, electrical and metal industries at the end of 2020 revealed deficits in this area. Many large companies and SMEs are of course already developing – or have already implemented – Industry 4.0 projects, but many still view the automation of production and processes as a major strategic challenge. Only a minority also have a fully formulated digital strategy. Potential starting points include using computer-based tests in product development, creating technical documentation in paperless form, networking out-of-date plants and machinery and automating test stations for quality assurance. Other action areas include the use of digital platforms in marketing, digitally interwoven process chains involving suppliers and customers based on the model of the automotive industry, and cross-company cooperation (Shared Economy).

SWISS HEALTHCARE SYSTEM FALLING BEHIND IN DIGITALISATION



The Bertelsmann Stiftung surveyed 17 specially selected countries to determine their Digital Health Index – the maximum score being 100. It is calculated from the mean value of three sub-indices (policy activity, digital health readiness, actual data usage) which reflect various dimensions of digitalisation. Switzerland is among the poorest performers in terms of healthcare system digitalisation. Source: Bertelsmann Stiftung, Digitalisation Strategies in International Comparison (2018).


«I would love to
speak freely.»

FRAMEWORK CONDITIONS


RIA CONFOEDERATIONIS HELVETICAE

_ We support liberal trade regulations that secure free access to global growth markets.

10 — AIM: MARKET ACCESS

Swiss medtech companies need unrestricted access to their most important trading partner – the European Union – as well as to emerging markets worldwide. We want to continue and further develop Switzerland's successful bilateral relations with the EU. The two-way trade in medical products should be exempted from barriers. Existing free-trade agreements should be better tailored to the needs of medtech companies, new agreements should be established (e.g. with the USA and India) and the WTO's multilateral approach should be strengthened. Customs-processing of medical devices is being improved. In addition to medical devices with European approval, quality-controlled medical devices with non-European approval should also be authorised for sale in Switzerland. We maintain a proactive dialogue with politicians and the authorities in order to improve the image of the industry and achieve a response to our trade-policy demands

_ We endorse market-friendly policies which support long-term competitiveness.

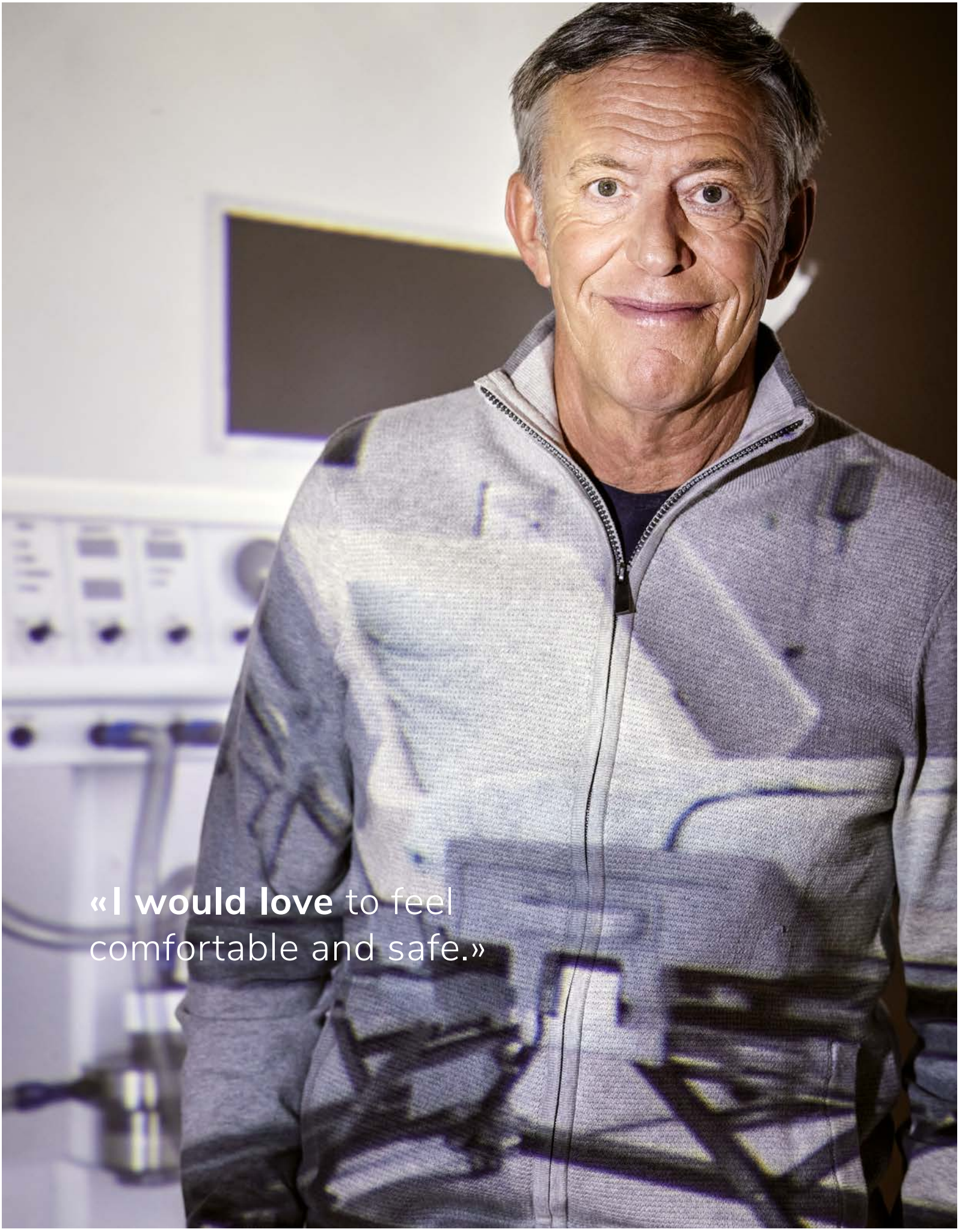
11 —— AIM:
REGULATION

The stability of institutions, secure legislation and planning, predictable political policies and liberal market regulations are the cornerstones of any prosperous Swiss industry. Governmental framework conditions should guarantee companies the greatest possible freedom for entrepreneurial activity. To preserve our country's traditional factors for success, we proactively represent the interests of the industry in dealings with politicians and the authorities – both alone and in collaboration with partners. We counteract any tendency towards overregulation and engage in political affairs in a targeted manner. We network with the relevant stakeholders at home and abroad and promote the dialogue within the industry.

_ We advocate for moderate taxes which promote positive conditions for investment.

12 — AIM: **TAXATION**

We work with alliance partners to achieve the following goals: the 15% minimum tax for internationally active companies with sales of over 750 million euros agreed by the OECD and the G20 countries must be implemented with caution, and the reform must not weaken the attractiveness of Switzerland as a business location. As a direct consequence, certain companies will pay higher taxes in Switzerland, and in conjunction with the high labour and other location costs this poses a threat to Switzerland's competitiveness. The federal government and the cantons must use the financial and legal flexibility in order to maintain tax attractiveness and implement measures which promote Switzerland as a business location in issues unrelated to taxation. Switzerland must not fall behind important competing countries. Purely domestically oriented companies and Swiss SMEs not directly affected by this new tax regime should continue to benefit from attractive tax rates and deduction options for R&D expenses, as well as receiving training in the use of relevant instruments such as the patent box.


«I would love to feel
comfortable and safe.»

Our challenge: halting the erosion of business location advantages

RESET THE RELATIONSHIP WITH THE EU

The Federal Council broke off negotiations for the Institutional Agreement with the European Union in mid-2021. Since then, as regards medical devices Switzerland has been treated as a third country by the EU. Swiss companies are struggling with administrative hurdles and additional costs when it comes to the acceptance of their devices for export and import. New trade barriers are causing Switzerland to gradually lose its competitive edge as a business location. The exclusion from the Horizon Europe programme also weakens Switzerland's position as a research location. Medical technology – an innovation-driven growth industry – is facing significant challenges, as established companies and start-ups seek to maintain their growth trajectory.

STOP PROTECTIONISM

Swiss prosperity is largely based on free trade. The system is threatened by global tendencies, including interference in the form of industrial policies, restriction of international trade and a weakening of multilateral institutions. This will further increase the pressure on Switzerland, which as a medium-sized, advanced and export-oriented economy is particularly dependent on open markets. The trade agreement with Great Britain and the free trade agreement with China are prime examples of Switzerland's traditionally liberal trade policy. This trend should be continued in a successful manner.

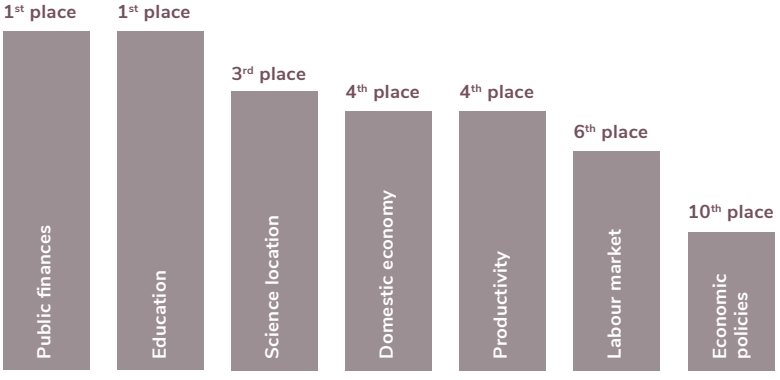
MAINTAIN POLITICAL STABILITY

Switzerland is being threatened by a gradual erosion of its traditional strengths. Anti-business initiatives repeatedly undermine the predictability and reliability of the political framework for action. To safeguard Switzerland's success as a business location, we need a coalition which aims to preserve the stability and trustworthiness of political institutions as a fundamental value of the Swiss economy. After all, reliability forms a crucial basis for development of our dynamic medtech industry and reinforcement of its competitive position.

PROTECT THE TAXATION SYSTEM

Tax attractiveness is one of Switzerland's key competitive advantages. It contributes significantly to our country's prosperity and job growth, including in the medtech industry. In recent years Switzerland has aligned its system with internationally recognised tax practices – including the approval of the Federal Law on Tax Reform and AHV Financing (STAF) in May 2019. As a well-known tax location, Switzerland faces new challenges following the implementation of OECD tax reforms. The objective must be to maintain the attractiveness of our business location.

SWITZERLAND'S CORPORATE COMPETITIVENESS BY SECTOR



IMD ranking of Switzerland compared with 64 other countries. Source: IMD World Competitiveness Yearbook (2021)

Portrait of the Swiss Medtech Industry

STRONG EXPORTS

Switzerland is the land of medical technology. Hardly anywhere else in the world does our industry employ a higher percentage of the population. The density of medtech enterprises in our country is unparalleled. Of the 1,400 companies, three-fifths are manufacturers and suppliers; the rest include specialised service providers and trading and distribution companies. The companies are spread throughout Switzerland, with special concentrations in the regions Lake Geneva, Ticino, the Swiss Midlands and Zurich/Central Switzerland. Many specialist suppliers are located in the Jura Arc. As an employer, Swiss medtech is in the same league as the pharmaceutical and watchmaking industries. Driven by innovation and strong growth, it exemplifies the successful profile of Switzerland as an export nation.

INNOVATIVE

Modern medical technology unites many traditional branches of industry and expertise. Craftsmen in these industries include the knifemaker Joseph-Frédéric-Benoît Charrière from western Switzerland, hands-on Bernese surgeons such as the Nobel Prize winner Theodor Kocher and the high-precision Swiss watchmakers. Starting at the end of the 19th century, physicians and engineers jointly developed many medical-technology ideas that are still having an impact today. The 1950s saw the Grenchen-Solothurn and Zurich regions become focal points for osteosynthesis. In the following decades Swiss companies conquered foreign markets with their quality devices. Swiss medical technology is currently part of a globally active, highly competitive high-tech industry.

VERSATILE

Swiss medical technology is characterised by its diversity, with startups operating alongside large established companies and regionally oriented firms existing alongside international corporations. Their products are also very diverse. Switzerland is traditionally strong in trauma care, endoprosthetics (joint replacement) and dentistry. Other industry focal points have emerged in recent years in the fields of intensive care medicine, in vitro diagnostics, cardiology, ophthalmology and drug-delivery systems. Currently, young companies are conquering future markets with robot-controlled systems, neurorehabilitation devices and software-based medical products. This diversity is due to our country's excellent track record as a centre of knowledge and technology. This optimal status must be retained.

Industry key ratios

Contributes 16.4%
to Switzerland's positive trade balance

1,400
companies

63,000
employees

CHF 5.9bn
imports

2.9%
employment growth p.a.
(2012 – 2019)

CHF 12bn
exports

6%
sales growth p.a.
(2012 – 2019)

CHF 17.9bn
turnover

Source: Sector Study Swiss Medical Technology Industry (2020)

About Swiss Medtech

Swiss Medtech is an industry association representing the Swiss medical technology sector, and it currently boasts over 700 members. Founded in 2017 and headquartered in Bern, it is also a member of the MedTech Europe umbrella organisation. Swiss Medtech is committed to an environment that promotes innovation, fosters startups and strengthens the companies' competitiveness. Our aim is to secure a framework that enables the Swiss medtech industry to operate at peak performance level and deliver first-class medical care. To this end we actively advocate the common interests of our members in decision-making processes concerning economic and healthcare policies and promote networking involving both the industry and other relevant stakeholders. We work closely with our members, informing them of key developments and supporting them in the face of challenges.

Members can consult our numerous expert groups in order to access specialised networks and additional expertise. As an industry association we are the first point of contact for all matters concerning the Swiss medical technology sector, and also inform the public about its importance and activities. Swiss Medtech's office is located in the Swiss Institute for Translational and Entrepreneurial Medicine building (sitem-insel) at the entrance to Bern University Hospital's Insel campus – making us part of the first national competence centre for translational medicine. The office maintains a streamlined organisational structure with a staff of around twelve.

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