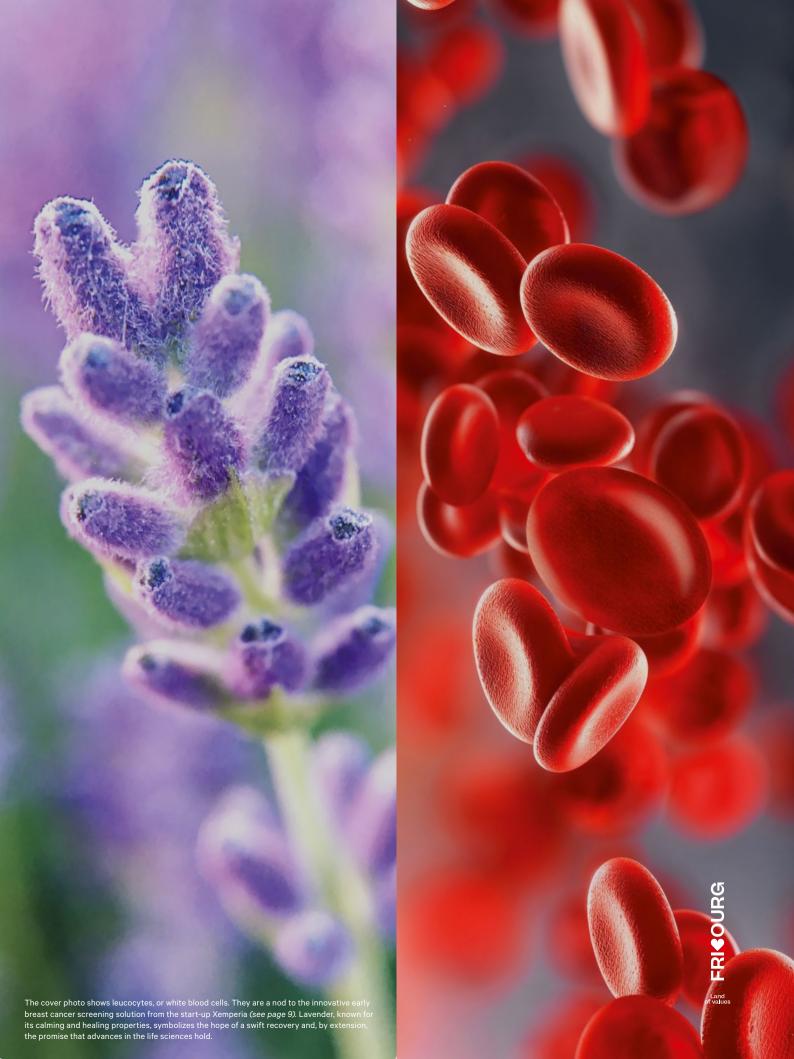


THE BUSINESS MAGAZINE OF THE CANTON OF FRIBOURG

2024

LIFE SCIENCES: CHAMPIONS OF ADDED VALUE











Fribourg / Switzerland: The Place for Life Sciences

CSL Vifor















Olivier Curty, State Councillor, Minister of Economic Affairs

FRIBOURG: A HUB OF EXCELLENCE IN THE LIFE SCIENCES

The canton of Fribourg has become much more agile in its ability to integrate innovative economic sectors in a way that builds on its existing strengths and is consistent with its development policy. The life sciences sector is a good case in point. Not only does it fit perfectly with our bioeconomy strategy, but it is also emerging as a major driver of growth in the canton. An independent study by BAK Economics, which you can read more about in this edition of Fribourg Network Freiburg, confirms that the life sciences industry has become a significant contributor to the regional economy.

In terms of added value and productivity, the life sciences now far outstrip other traditional economic sectors. This dynamism is enabled by a unique ecosystem made up of a highly qualified workforce, outstanding infrastructures, and cutting-edge centers of excellence like the Biofactory Competence Center, the Adolphe Merkle Institute, and the ChemTech Institute. Like its three technology parks – the Marly Innovation Center, Le Vivier and bluefactory – Fribourg offers the necessary conditions for bold innovation in this field.

Another factor that makes the canton an attractive location for the sector is the presence of academic institutions with biotechnology and pharmaceuticals expertise, such as the University of Fribourg and the School of Engineering and Architecture. These institutions are also of pivotal importance because they supply the next generation of in-demand talent and work closely with firms to find the solutions of tomorrow.

This process is part of a deliberate and ambitious strategy aimed at strengthening synergies between academia and industry, and positioning Fribourg as a Swiss and European hub of excellence in the life sciences. Our production capacity in biotechnology and the life sciences attracts talent and investment, which helps to drive growth across the region. The BAK study highlights the considerable indirect impact of this industry, with many local companies benefitting from its multiplier effects.

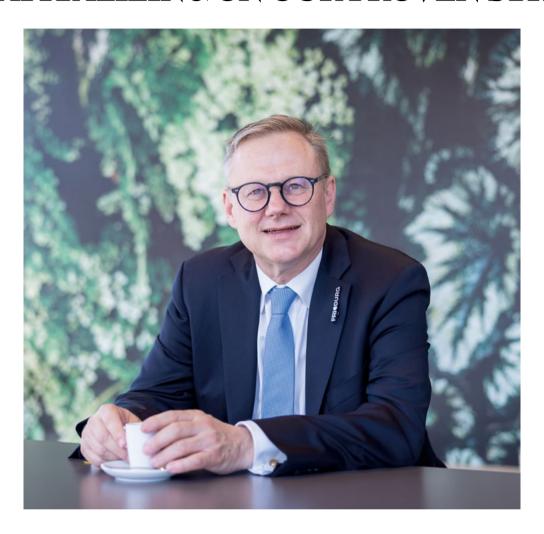
I am in no doubt that the real-life examples and hard data presented in the 2024 edition of Fribourg Network Freiburg will demonstrate beyond doubt the vitality of the life sciences sector in our canton, as well as its strategic importance. We will press on with our efforts to bolster our position in Switzerland and internationally, while continuing to give firms the resources they need to grow within this key economic sector.

Enjoy!



JERRY KRATTIGER

"ANTICIPATING GLOBAL TRENDS WHILE CAPITALIZING ON OUR PROVEN STRENGTHS"



Will Fribourg soon be better known for its biotechnology and green chemistry expertise than for its chocolate and cheese fondue? If the latest developments coming out of the canton's life sciences sector are anything to go by, this might just happen. Contrary to what some might think, the agrifood and life sciences sectors are closely aligned. Jerry Krattiger, Managing Director of the Fribourg Development Agency, explains why.

How do you define life sciences, the focus of this edition of Fribourg Network Freiburg?

The life sciences encompass a wide range of disciplines that are involved in the study of living organisms and life processes. While biotechnology uses biological systems and living organisms to develop products and technologies, the pharmaceutical sector specializes in the development and marketing of medicines that benefit human health. The medical devices field focus on appliances like scanners, prostheses and hearing aids, which are designed and manufactured



by specialized researchers and engineers. The diagnostics field develops tests to screen for and detect diseases and, last but by no means least, there are consulting services and digital health innovations.

How do you explain the life sciences boom in the canton of Fribourg?

Ciba had been a major economic player in the region since the 1960s. But after it merged with Sandoz in 1996 to become Novartis, the group quickly relocated its operations. In the intervening years, though, the canton of Fribourg has seen the arrival of pharmaceutical companies such as Vifor and UCB Farchim, closely followed by businesses working in the diagnostics or medical devices fields like Bio-Rad, Alcon, Sonova and Medion Grifols. Fribourg has evolved into an attractive location for life sciences firms and a dynamic presence in this sector.

"Fribourg fits perfectly into the thriving ecosystem of Western Switzerland's Health Valley and actively contributes to its development and greater international reach."

Jerry Krattiger

It seems that the boom is particularly pronounced in Western Switzerland's Health Valley?

Absolutely. The strengths of the canton of Fribourg extend beyond its borders. From Solothurn to Geneva, Western Switzerland's Health Valley has a high concentration of incubators, technology parks and cutting-edge

companies, which is further enhanced by the high production capacity of its biotech businesses. Fribourg fits perfectly into this thriving ecosystem and actively contributes to its development and greater international reach.

What are Fribourg's strengths in terms of innovation?

We have unique infrastructures such as the Biofactory Competence Center for training and biomanufacturing, the ChemTech Institute for green chemistry and the iPrint Institute for biomedical printing. The Adolphe Merkle Institute (AMI) also stands out for its nanotechnology expertise, which includes its work on the encapsulation of vaccines on a very small scale. These centers of excellence work closely with business and industry, which drives research forward and facilitates the transfer of the technologies they develop and refine to the market.

Has Fribourg attracted life sciences firms from outside Switzerland?

Attracting foreign groups is always a challenge, but we've recently won over companies like the Brazilian CT Group, which has decided to relocate its central purchasing office here. They source their medical devices from Switzerland and Europe and then ship them to Brazil. Other players, such as OM Pharma and Verfora, have chosen Fribourg as the headquarters for their sales operations in Switzerland. These successes confirm the attractiveness of our location in the heart of Switzerland and Europe, which is further boosted by the availability of land in our canton and the quality of our infrastructure.

Did Fribourg's agrifood tradition play a key role in these positive developments?

There is a throughline between our agrifood tradition and the progressive growth of the life sciences sector in our canton. The longstanding and powerful presence of the agrifood industry has enabled us to build up a solid knowledge base and skills in chemistry and biology. This expertise has naturally evolved towards more advanced applications, notably in biotechnologies. Today, these fields are mutually reinforcing, demonstrating our ability to adapt and anticipate global trends, while capitalizing on our proven strengths.

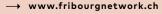
How do you see the future?

I'm convinced that the life sciences sector has extremely high potential. It already accounts for more than 15% of our exports and generates added value well above the cantonal average, as confirmed by the study we commissioned (see pages 6-7). The dynamism of the sector and the highly skilled workforce underpinning it represent a massive opportunity for our canton's economy in the years to come.

→ www.promfr.ch

AN EVEN BETTER ONLINE EXPERIENCE!

Head over to the multilingual Fribourg Network Freiburg website (English, French and German) and enjoy lots of exclusive online content, including videos, photos and additional articles. And, don't forget to check back regularly for brand new content.





Watch the video online



Read more textual content online



See more photos online



BAK REPORT

A RISING POWERHOUSE OF THE FRIBOURG ECONOMY



The canton of Friboura has a booming life sciences sector. But how important is it for the cantonal economy? This was the question that the Fribourg Development Agency (FDA) and GRIP, the trade association for the pharmaceutical industry in Western Switzerland, commissioned BAK Economics, an independent research institute, to answer. The study, which surveyed the major players in the industry, was co-funded by GRIP, the FDA, CSL Vifor, Medion Grifols Diagnostics, OM Pharma Switzerland, UCB Farchim and Verfora. What follows are the main takeaways from the report, which was made possible thanks to a partnership between public and private actors.

High value added and productivity

Several sectors of the Fribourg economy – construction, food and real estate – generate impressive value added. But none can beat the one and a half billion Swiss francs generated by the life sciences industry. Behind this accomplishment are 3,300 fulltime equivalent (FTE) posts, which makes the sector 3.2 times more productive than the cantonal average and puts it at the top of the canton's productivity rankings.

The rate of employment and valueadded growth in the life sciences sector has outpaced that of the cantonal economy. In the last 10 years, the industry has recorded a value-added growth rate that is 2.8 times higher than the cantonal average.

This exceptional performance is down to the industry's high value-added activities, which include production, research and development (R&D) – one in every 12 jobs is in R&D – and the sale of its goods and services. Fribourg's life sciences industry relies on a highly qualified workforce to

perform this work. A total of 60% of its employees have a higher education qualification compared to 38% in the cantonal economy as a whole.

Indirect effects and multiplier effects

The production, R&D and commercial activities of life science companies indirectly generate close to 2 billion Swiss francs in turnover, which amounts to 10% of the Fribourg economy. Many regional companies benefit from the purchases and investments that life science companies make, and from their employees' consumer spending. In 2023, these indirect effects totaled 420 million francs in value added, 3,379 FTE jobs and 301 million francs in wages.

For every 100 francs of value added directly generated by the life sciences industry, an additional 27 francs are generated in other industries. In terms of employment, for every job created in the life sciences sector, one additional full-time post is created in the cantonal economy.

Content and illustrations sourced from the BAK Economics report, 'The importance of the Life Sciences sector for the economy of the canton of Fribourg' (September 2024)

Distribution of employment across Fribourg's Life Sciences sector, 2023

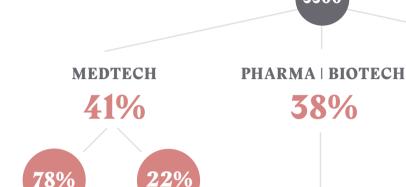
Employment in full-time equivalents (FTE); rounded figures Sources: FSO, BAK Economics



Download full report here

LIFE SCIENCES

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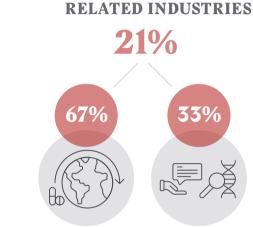


Irradiation, electromedical and electrotherapeutic equipment



Medical and dental instruments and equipment



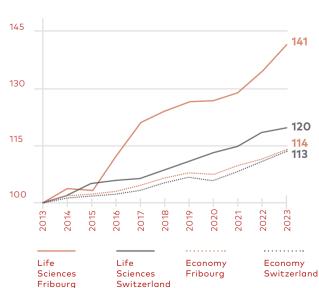


Wholesale of pharmaceutical goods

Laboratory infrastructure & consulting

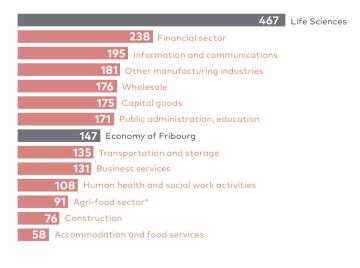
Employment growth in the canton of Fribourg and Switzerland, 2013-2023

Indexed 2013 = 100; growth based on FTEs Sources: FSO, BAK Economics



Labour productivity in canton of Fribourg, 2023

In thousands of Swiss francs per FTE *Includes primary sector Sources: BAK Economics



UCB FARCHIM

A TINY PILL THAT PACKS A BIG PUNCH



JCB Farchim has invested over 650 million Swiss francs in ts Bulle site since 1996. Today, the plant is equipped with the latest innovative, cutting-edge manufacturing tools.

A staggering 60 million people worldwide take an antihistamine that is manufactured entirely in the canton of Fribourg. Since the UCB opened its production facility in the town of Bulle back in 1996, the site has become a pivotal part of the Belgian biopharmaceutical group's strategic growth plans. Drugs to treat neurological conditions, autoimmune diseases and allergies are manufactured here. According to Fabrice Véricel, the company's current director, the 700-strong workforce has more than doubled since he joined the company 13 years ago. It was around this time that the group announced its ambitious expansion project, the centerpiece of which was a new purpose-built biotech production unit on the existing Bulle site.

In under 30 years, the multinational, which employs 9,000 people worldwide and is a leading global provider of anti-epileptic drugs, has injected more than 650 million Swiss francs in the Bulle site. The investment has paid off, Véricel explains. "The sales revenue from the drugs manufactured at our Bulle site account for a sizeable share of the group's turnover," he adds, "and If we were to put all the tablets produced by **UCB Farchim** end to end, the line would run from Europe to America."

With global annual revenue topping €5 billion, the Belgian pharma giant has set its sights on even stronger growth. In recent years, it has invested heavily in gene therapy, a still uncrowded sector which the group sees as the future of healthcare.

Building performance and sustainability

Since 2016, the UCB biotech production unit in Bulle has been focusing on making a biopharmaceutical with cultured bacteria to treat a range of inflammatory diseases like rheumatoid arthritis, psoriasis and Crohn's disease. The imposing facility was recently adapted to accommodate the development and production of another drug, which will treat lupus, an autoimmune disease that mainly affects women. According to the director of the Bulle site, "Phase 3 clinical trials are already under way, so it will be a few more years before we can start manufacturing the drug."

UCB Bulle is committed to reducing its carbon footprint and has launched several initiatives to mainstream sustainability across all its operations. "To give you one example, we're currently exploring how we could recycle our industrial wastewater," explains Fabrice Véricel.

→ www.ucbsuisse.ch



UNIVERSITY OF FRIBOURG

BOUNDARY-PUSHING RESEARCH

The **University of Fribourg** (Unifr) has many claims to fame. In addition to being the only officially bilingual university in Switzerland (some of its study programs are even trilingual), it is also behind a host of pioneering initiatives that push the boundaries of research and technology. They include the Adolphe Merkle Institute (AMI) and early-stage ventures like Xemperia and Neuria which are at the forefront of efforts to develop innovative life science-based solutions.

Xemperia, which was founded in 2023, is a Unifr start-up specializing in advanced medical diagnostics. It draws on decades of breast oncology research, as well as its expertise in biostatistics, medical biology and DNA technology to develop innovative blood tests that screen for early-stage cancer. The hope is that this precise, affordable, easy-to-use diagnostic tool will help improve survival rates thanks to its ability to detect the disease when it is most responsive to treatment.

Did you know that video games can be used to improve public health? That is precisely what **Neuria**, another Unifr spin-off, does. The digital therapeutics start-up, which has been operating since 2021, is deploying gamification methods to create tools that help users change their eating habits and make healthier lifestyle choices. Its core software, *The Diner*, which incorporates Neuria's patented neurocognitive mechanism, has been shown to reduce junk food consumption by 20% among trial participants.

Its unique and ingenious approach has earned the start-up several accolades, from Venture Kick funding to a Fribourg Innovation Award. This official recognition of Neuria's work also reflects its huge game-changing potential for nutritional health interventions

Artificial muscles

The **Adolphe Merkle Institute** (AMI), an independent competence center at the Unifr, is globally renowned for its research on smart materials and nanotechnologies and has a growing roster of collaborative projects with national and international partners, such as 'Integrate', a project that covers multiple disciplines, including life sciences. As Dr. Ana Claudia Marques, Knowledge and Technology Transfer Manager at AMI, explains, "This European network, which is led by AMI, is working on the development of fully artificial muscles."

Another AMI project creates cellular lung models to find out what effect the inhalation of toxic particles has on the human lung. Using models reduces the need for animal testing and generates more reliable results. Closer to market is New Eden Labs, a start-up selling an eco-friendly, silica-based fertilizer that makes plants more resistant to disease, water stress and drought.

- → www.unifr.ch
- → www.xemperia.com
- → www.neuria.ch
- → www.ami.swiss



Xemperia, a start-up founded in 2023, develops innovative early cancer detection blood tests.

RUETSCHI TECHNOLOGY CENNING IID TL

SEWING UP THE SURGICAL KIT MARKET

As **Ruetschi Technology** conclusively proves, the pairing of precision watchmaking and medical expertise is a match made in business heaven. Founded in 1959 by a watch dial manufacturer, the family-run company initially produced machined components for various industries before expanding into the medical device market. Today, with around 200 employees in Muntilier and Yverdon-les-Bains, it is a leading manufacturer of sterile single-use 'procedure kits' for surgeries, particularly in the orthopedic, dental and spine markets (see photo). Executive Manager Christoph Ruetschi humorously calls the company a "hidden champion" because it develops these products for other companies to sell under their name.

A decade ago, Ruetschi Technology strategically invested in the procedure kit sector, resulting in double-digit growth and nearing CHF 50 million in annual revenues. At the end of 2023, the Swedish group Elos Medtech acquired the Fribourg-based company. Post-merger, Ruetschi notes, "Our operations are now focused more heavily on the interventional spine market."

Ruetschi Technology is committed to reducing healthcare costs by leveraging its expertise to create effective and efficient products. Christoph Ruetschi believes that "procedure kits can bring the achievement of this goal a step closer." These kits shorten surgery times, increase hospital profit margins, lower patient infection risks, simplify surgical setups, and reduce the issue of lost or defective instruments.

With one of the best R&D teams, Ruetschi Technology is poised to continue focusing on innovation, a hallmark of Switzerland and Fribourg as successful business locations.

→ www.ruetschi.com





"BOOSTING OUR CANTON'S CAPACITY FOR INNOVATION"

JEAN-NICOLAS AEBISCHER, HEIA-FR DIRECTOR

What sets the School of Engineering and Architecture of Fribourg (HEIA-FR) apart in the life sciences field?

HEIA-FR's integrated approach dovetails with and enhances the work carried out by other parts of the HES-SO (University of Applied Sciences Western Switzerland), a network of 28 universities spread over seven cantons. Our Chemistry study programs and the activities of the affiliated ChemTech research institute focus on molecular sciences and industrial process engineering – in other words, the development of pilot-scale chemical and biotechnological processes – with an emphasis on sustainability and circularity.

Flagship projects?

We are actively involved in the 'Catalysis' NCCR, a Swiss research program aimed at improving the energy and molecular efficiency of catalytic processes. We also work with innovative companies such as Bloom Biorenewables, which transforms lignocellulosic materials into sustainable chemical products. Also worthy of note are our promising mechanochemistry research on solventless reactions and our partnership with Seprify, a start-up specializing in the development of sustainable pigments.

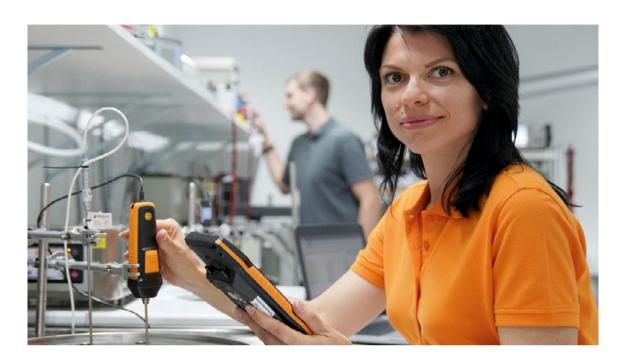
What role does technology transfer play in your mission?

A central one! For example, the Biofactory Competence Centre is superbly equipped to meet the biopharmaceutical industry's needs with tailored trainings and bioprocess engineering research. For an academic institution, the HEIA-FR has phenomenal infrastructures. We are committed to using our collective skills and expertise to benefit society and the economy, playing a proactive role in boosting our canton's capacity for innovation.

→ www.heia-fr.ch

SERVICES

"INNOVATION IS NOT THE SOLE PRESERVE OF INDUSTRY"



"Innovation is not the sole preserve of industry. Service providers are innovators, too," explains Stéphane Gumy, General Manager of **PMS Process Management System**. "In the world of consulting, innovation means having the ability to develop and deploy innovative solutions that are both affordable and fully compliant with current regulations."

The Fribourg-based company has been providing its services to the pharmaceutical, medical device and cosmetics sectors since 2007 and has made it its mission to enable SMEs and start-ups to access cutting-edge solutions despite the financial constraints they often face. "Meeting the specific needs of each customer therefore requires a mix of creativity and efficiency."

PMS offers a wide range of services, from process validation and risk analysis to auditing and project management. They also offer training courses and provide regulatory representation services, e.g. taking on the 'contracted qualified person' role on behalf of its customers. "For the life sciences sector, manufacturing process optimization and regulatory compliance, including ISO and GMP compliance, are a must," adds Gumy.

An ecosystem where synergies flourish

Tecost, another firm based in the bluefactory innovation district, develops clinical information systems for the

healthcare sector. Under the Carefolio brand, it delivers a range of innovative, integrated solutions that are tailored to the needs of acute care hospitals, rehabilitation clinics, long-stay facilities, homecare organizations and care networks. Since it started operating in 1997, the firm has enjoyed steady growth. It has now over 200 customers across Switzerland and more than 30,000 users utilize its information systems every day.

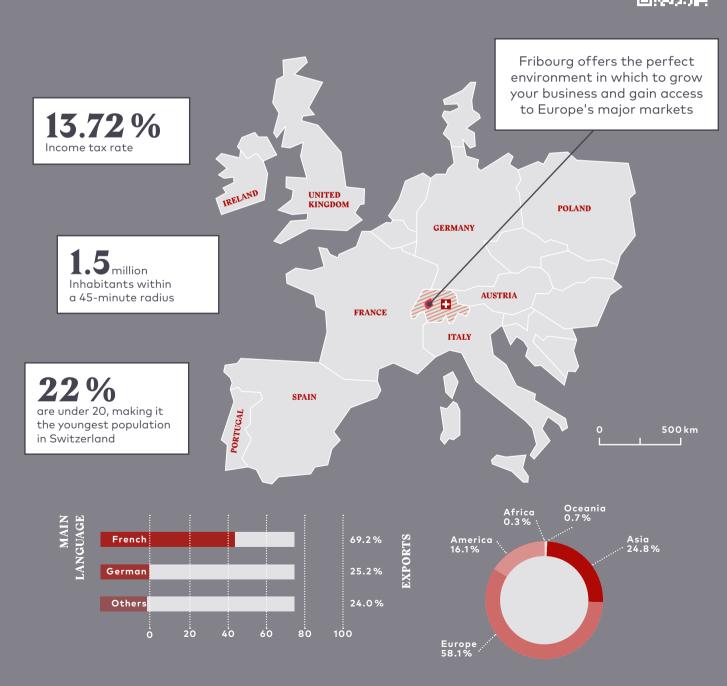
Bluefactory is also an ecosystem where synergies between firms working in the health sector flourish. **Testo Industrial Services** (see photo), a subsidiary of measurement equipment manufacturer Testo SE & Co, has established itself as one of Switzerland's leading providers of calibration and GxP (Good Practices that ensure product quality and regulatory compliance) services, offering as many as 300 accredited calibration procedures. Its extensive service portfolio also includes test equipment management, qualification, validation and a qualified training program.

- → www.pmsystem.ch
- → www.tecost.ch
- → www.testotis.ch

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"WE CHOSE FRIBOURG FOR ITS QUALITY OF LIFE, ITS UNIVERSITIES AND ITS TALENTS"

*Antonio Delfino, CEO, Venturi Lab



FRIBOURG - LAND OF VALUES

Fribourg has so much to offer. First, there is its enviable central location that includes excellent transport links to the main Swiss and European road and rail networks. The country's main cities and airports – Basel, Bern, Geneva and Zurich – are only a 90-minute journey away.

The canton's unspoiled nature, diverse landscapes, vibrant sporting and cultural life, rich history, and exceptional cultural and culinary heritage are some of the reasons why Fribourg is such a great place to live, work and study. The people of Fribourg are famed for their down-to-earth, open-minded, optimistic and friendly approach to life. At the same time, their drive has transformed the canton into a dynamic region and an ideal breeding ground for a host of innovative and exciting projects. Why not come see for yourself?





FRIBOURG - A HIVE OF INNOVATION

The Global Innovation Index has repeatedly ranked Switzerland among the most innovative countries in the world. It is fair to say that the canton of Fribourg has played its part in this designation thanks to a development strategy that is focused on promoting innovation and high value-added activities. Since 2011, five innovation hubs have sprung up across the canton. Offering first-rate infrastructures and superlative services, these technology centers are now home to many start-ups and hightech companies.



AgriCo

- Specialization: agrifood and valorization of biomass
- ▶ Location: Saint-Aubin
- → www.agrico.swiss



bluefactory

- Specialization: built environment of the future, circular economy, bioeconomy, mobility and human health
- Location: Fribourg city center
- → www.bluefactory.ch



La Maillarde

- Specialization: industry 4.0
 and environmental technologies
- → Location: Romont



Bluefactory is a member of the Switzerland Innovation Park network.



Marly Innovation Center

- Specialization: fine chemicals and digital printing
- ▶ Location: Marly
- \longrightarrow www.marly-innovation-center.org



Le Vivier

- Specialization: automation and robotization
- ▶ Location: Villaz
- → www.vivier.ch



IFF Award (Innovation Fribourg Freiburg)

The biennial IFF Award, organized by the Fribourg Development Agency and the Fribourg Cantonal Bank (BCF), celebrates Fribourg's most pioneering and visionary companies. Since 1991 more than 50 companies have reaped the benefits of this showcase of Fribourg entrepreneurial creativity, raising the visibility of their company and their products in the process. www.iffaward.ch

FRIBOURG - A TECHNOLOGY TRANSFER POWERHOUSE

technology is a core feature of Fribourg's economic ecosystem. It allows industry to remain innovative and competitive, fosters collaborative projects, and generates of resources and specialist services ogy transfer to grow their business.

They include sectoral clusters, competence centers, the technology platform INNOSQUARE and a dedicated technology transfer office. This entrepreneurship and innovation. The Adolphe Merkle Institute (AMI)

On top of all this, the Fribourg School of Engineering and Architecture has 10 applied research institutes in three distinct fields: information and communication technologies, construction and environment, and industrial technologies. They work hand in hand with companies to find products and processes.

- → www.unifr.ch/innovation/en
- www.heia-fr.ch

TECHTRANSFER FRIBOURG



TechTransfer Fribourg is the official technology transfer office of the University of Fribourg, the Adolphe Merkle Institute, the Fribourg School of Management and the Fribourg School of Engineering and Architecture. It offers advice on intellectual property issues and acts as a link between academic research and industry.



in Follow TechTransfer Fribourg on LinkedIn



INNOSQUARE

INNOSQUARE is a technology platform that helps companies develop and realize their innovative ideas, and facilitates collaborative single- and multisector projects that bring together industry, the public sector and academia.

→ www.innosquare.com

CLUSTERS

Food & Nutrition Cluster

→ www.clusterfoodnutrition.ch

Swiss Plastics Cluster

www.swissplastics-cluster.ch

FEXPERTISE

Biofactory Competence Center (BCC)

→ www.bcc.ch

Digital Printing Competence Center (iPrint)

→ www.iprint.center

Plastics Innovation Competence Center (PICC)

→ www.picc.center

Robust and Safe Systems Center (ROSAS)

→ www.rosas.center

Smart Living Lab

→ www.smartlivinglab.ch

Research centers and institutes



Adolphe Merkle Institute

Soft Nanomaterials → ami.swiss



Food Research and **Innovation Center** Sustainable use

of raw materials in agriculture, Consumer, Health





Human-IST Institute Human-Computer Interaction, Machine

Learning → human-ist.unifr.ch



smart living lab Buildings, Energy Efficiency, Digital

Transformation → smartlivinglab.ch

FRIBOURG - A BEACON OF EDUCATION AND SCIENCE

Fribourg has the youngest population in Switzerland and a higher education landscape that is as diverse as it is dense. Alongside its cosmopolitan university, where over 10,000 students are enrolled in a wide range of undergraduate and postgraduate programs, the canton has several specialist higher education institutes like the School of Engineering and Architecture, the School of Management, the School of Social Work and the School of Health Sciences. It is also home to the Adolphe Merkle Institute, Switzerland's leading research and teaching center in the field of nanosciences and material sciences. The prestigious EPFL (Swiss Federal Institute of

Technology in Lausanne), which is internationally recognized for its excellence in education and research, has also a location in Fribourg.

Added to these is a plethora of colleges specializing in fields such as business administration, agriculture, music, art, multimedia and hospitality. Of course, there is a broad host of primary, junior and senior high schools, as well as vocational training schools and colleges. Throughout the education system, classes are taught in French and German, while English is the language of choice for many postgraduate programs.



University of Fribourg

 \longrightarrow www.unifr.ch



Adolphe Merkle Institute

→ www.ami.swiss



School of Management & Innovation Lab

→ wwww.heg-fr.ch



School of Engineering and Architecture

→ www.heia-fr.ch



EPFL Fribourg

→ fribourg.epfl.ch

FRIBOURG - A STAUNCH SUPPORTER OF BUSINESS

Since 1971, the Fribourg Development Agency has been helping local businesses get off the ground, outside companies to relocate to the region, and established companies to expand their operations. We are on hand to advise and guide you through the many support mechanisms and opportunities offered by the canton of Fribourg. A dedicated project manager will be appointed to assist and coordinate your project, and will take the lead and put you in touch with the right people for: financial assistance and tax incentives, finding the ideal site or premises for your business, staff recruitment, applying for and obtaining work and residence permits, apartment/house hunting, the social integration of your family and your personnel, contacting institutions of higher education, and any other topic that might arise. Get in touch. We're here to help!

→ www.promfr.ch



Neue Regionalpolitik **nrp** Nouvelle politique régionale **npr** Nuova politica regionale **npr**

The **New Regional Policy** is a stimulus program launched by the federal government with assistance from the cantons. Its mission is to foster innovation both in industry and tourism by providing financial support in the form of loans, non-repayable grants and subsidies.

Innosuisse is Switzerland's national innovation promotion agency. It provides consultancy, networking services and financial resources to help turn scientific research into economic results.

THE BEST PLACE FOR THE BEST COMPANIES

These companies, among many others, have chosen to locate in Fribourg: Alcon (Switzerland/USA), Bio-Rad (USA), Cartier (France), Cailler/Nestlé (Switzerland), Comet (Switzerland), Johnson Electric (China), Liebherr (Germany), Mapei (Italy), Medion Grifols Diagnostics/Grifols (Spain), Parker Meggitt (USA), Michelin (France), Nespresso (Switzerland), Pall International (USA), Richemont International (Switzerland), Rolex (Switzerland), Savencia (France), Scott Sports (Switzerland), Sika (Switzerland), Sonova (Switzerland), Starrag (Switzerland), UCB Farchim (Belgium), Venturi (Monaco), VeriSign (USA) and Wago Contact (Germany)

→ www.promfr.ch/en/establish/references





Fri Up is the canton of Fribourg's official business start-up support agency. It offers free support for new entrepreneurs and fosters innovation.

→ www.friup.ch



Based in Fribourg, Platinn is the Western Switzerland Innovation Platform. Its mission is to foster the innovation capabilities and competitiveness of competitiveness of SMEs through its coaching services.

→ www.platinn.ch

CORDENPHARMA

FROM LOCAL ROOTS TO INTERNATIONAL HEIGHTS

CordenPharma is the latest occupant of a landmark site for the canton of Fribourg's pharmaceutical sector. The major structural changes it has undergone over the decades have enabled the business location to substantially expand its mission and reach.

It began in 1966 with Coopers, a cooperative founded by a group of pharmacists to pool the procurement and manufacture of pharmaceuticals in Switzerland. Some 11 years later, it was acquired by Galenica during the Swiss pharmaceutical group's expansion drive. As Yvan Liard, Managing Director of CordenPharma, points out, "These events heralded the emergence of the pharma industry in Fribourg. Coopers and Galenica were ahead of the pack by several decades, paving the way for other players to settle in the canton during the 1990s."

The creation of Vifor Pharma in 2008 boosted production capacity at the Villars-sur-Glâne site. Galenica focused on the distribution side of the business. In 2012, the facility, which primarily made products for the domestic market, received Food and Drug Administration (FDA) certification. This opened the doors to North America.

A major turning point in the site's history occurred in 2017 with the demerger of Galenica and Vifor Pharma. From then on, activities at the site concentrated on the manufacture of prescription drugs destined for the international market. "In 2008, 85% of our production output was sold domestically. Today, the same share is exported to the European Union, the United States, China and Russia."

This transformation process culminated with Corden-Pharma's acquisition of the site in February 2022. It was a move that allowed the company to position itself as a major international CDMO (Contract Development and Manufacturing Organization), "We have gone from being a cost center to a profit center. This shift has completely reshaped our internal dynamics and our approach to the market," Liard adds.

A constellation of companies

CordenPharma is at the epicenter of a dynamic pharmaceutical ecosystem. As well as leasing part of its premises to CSL Vifor, which was created in 2022 following CSL's takeover of Vifor Pharma, its close neighbors include Verfora, a Galenica subsidiary established in 2017 following the Vifor-Galenica demerger, and the Swiss affiliate of OM Pharma, formerly part of Vifor. All still do business with CordenPharma. "Many of my former colleagues are now my customers," the managing director notes with a smile.

This constellation of companies is proof of Fribourg's thriving pharmaceutical sector and the industry's adaptability. In 2021, CordenPharma opened a new modular production plant, which has consolidated its market position and its profile as a specialist manufacturer of solid and liquid dosage forms (see FNF 2021). The managing director is delighted with the new addition. "This facility means that we can increase production, integrate new technologies and continue to build on our existing areas of expertise. It opens up so many possibilities."

→ www.cordenpharma.com



The Villars-sur-Glâne premises of CordenPharma has played a formative role in the development of Fribourg's pharmaceutical industry.

DIAGNOSTICS

"LOCAL EXPERTISE WITH A GLOBAL REACH"



mmunohematological diagnostics specialists work to ensure that transfusion patients receive blood that is compatible with their blood group.

Fribourg is home to not one, but two big hitters in the fast-moving medical diagnostics sector: **Medion Grifols Diagnostics** (MGD), in Düdingen, and **Bio-Rad**, in Cressier. Since they were founded in 1955 and 1957 respectively, both firms have built a stellar reputation thanks to their expertise and capacity to innovate.

Medion Grifols Diagnostics, which has been part of Spanish giant Grifols since 2009 and employs 70 people at its Düdingen plant, is a leader in the specialist field of immunohematology. It plays a central role in the manufacture of diagnostic reagents that are critical for safe and compatible blood transfusions. MGD exports 75% of its output. Private and hospitals laboratories in over 50 countries worldwide currently use MGD products.

The Fribourg-based company is also heavily involved in research and development, as Managing Director Dr. Martin Spicher points out, "We are also well-placed to respond to emerging challenges in the medical sector because we have our own R&D department here in Düdingen." Having such an infrastructure in place allows the company to remain agile and responsive to changes in the market.

Safer transfusions

In 2023, MGD once again demonstrated its innovator credentials with the launch of Grifols sCD38, a product

designed to overcome the interference that certain cancer therapies have on patients' blood values. "These drugs can distort the results of pre-transfusion blood tests. Given that it is critical for patient health that the blood they receive is compatible with their blood group, our new tool enables laboratories to improve transfusion safety and reliability, even in the most complex of cases," the boss of MGD explains. Grifols sCD38, which has been awarded the CE mark, is further proof of the company's commitment to making global healthcare delivery safer. Spicher is rightfully proud of the MGD's new diagnostics solution, "It may be a niche product, but it has already proven its market potential."

Martin Spicher is determined to make Medion Grifols Diagnostics a major contributor to the canton's rising status as a life sciences hub. Going forward, the company plans to deepen and consolidate its immunohematology expertise, while continuing its work on new solutions that meet the growing needs of the health sector. "Our state-of-the-art facilities, coupled with our proximity to the universities of Fribourg and Bern and close ties with the cantonal authorities, create the perfect environment for growth."

- → www.grifols.com/en/switzerland
- → www.bio-rad.com

"We deliver the wireless technologies that are critical to Sonova's success," Laurent Saada, the Managing Director of **Sonova Communications** (see photo), proudly explains. In April 2021, the global leader in hearing care solutions opened one of Switzerland's first carbon-neutral offices at its Murten site. This high-tech complex, a true embodiment of the group's ambitious sustainability program, has become a benchmark for experts and a valuable asset for attracting talent, according to Saada.

The firm, which was founded in 1992 in the canton of Fribourg, specializes in the development of wireless technologies. The site, ideally located near the universities of applied sciences and EPFL, benefits from an exceptional talent pool. A total of about 150 employees, 75% of whom are engineers, work in modern facilities primarily focused on research and development.

One of Sonova's current flagship products, launched in 2021, was designed here. Already internationally acclaimed with six awards, Roger On is a lightweight device that significantly enhances the performance of hearing aids in noisy environments. "It's a fantastic inclusion tool," valued not only in educational settings, where it helps hearing-impaired students integrate into regular classrooms, but also in professional and private contexts.

Meanwhile, Sonova's engineers in Murten continue their innovative work. "Our teams have developed a next-generation chip with the potential to revolutionize our industry," says Laurent Saada, hinting at a major new advance "Made in Murten."

→ www.sonova-communications.com





"FRIBOURG IS A PRIME LOCATION FOR BIOPHARMA"

MAGALI BISCHOF, SECRETARY GENERAL OF THE BIOALPS ASSOCIATION

What is the BioAlps Association's mission?

The BioAlps Association is a life sciences cluster established in 2003. It brings together the six cantons of Western Switzerland and a dense ecosystem of research institutes, universities, start-ups, SMEs and multinationals. Our mission is to promote the 'Swiss Health Valley' as a world-class life sciences center and create synergies between research and industry. Our work focuses primarily on providing information, offering professional networking opportunities and organizing events on specific life science subjects.

Can you talk about your flagship event, the BioAlps Networking Day, which Fribourg will host on November 21?

Every year, around 300 representatives from academia, business, politics, public administration and the media gather to present and explore the latest life science trends. With its focus on sustainability in nutrition and health, the 2024 program taps into the canton of Fribourg's strengths and areas of expertise and will feature sessions on topics like sustainable biotechnology and green chemistry.

Who are the leading lights in Fribourg's life sciences sector?

Fribourg is a prime location for the biopharmaceutical industry. Major players like CordenPharma, CSL Vifor and UCB Farchim, a model of sustainable governance, are already based here. But there are also other companies like the plastics injection specialist Mecaplast, as well as the BioNanomaterials Group of the Adolphe Merkle Institute, the Food & Nutrition Cluster, and the Marly Innovation Center, a technology campus for industry and research.

→ www.bioalps.org

MEDISTRI

GROWTH AND EXCELLENCE GUARANTEED

Since its founding in 2006, **Medistri** has risen to become the Swiss leader in its field. But the Fribourg-based company is not resting on its laurels: growth and diversification are still the order of the day at Medistri. After doubling its plant capacity in 2020, Medistri has recently added a sixth production line.

At the core of Medistri's operations at its plant in Domdidier is the sterilization of medical equipment, a process that is critical for patient safety. The company uses different sterilization methods, such as steam and ethylene oxide sterilization, depending on its customers' specific requirements. Thanks to this versatility, Medistri can handle a wide spectrum of products, from simple syringes to highly complex medical devices. According to Sean Nilforoushan, Head of Business Development, "We sterilized around 400 million pharmaceutical vials in 2023 alone." Most of the equipment that passes through the facility is destined for export.

The company, which has assorted multinationals in Switzerland and in Western Europe in its order books, owes a good part of its success to its adaptability and short turnaround times. "We need an average of four to seven days to treat a product, whereas our competitors need between three to four weeks," Nilforoushan explains. Medistri is also committed to offering its customers maximum transparency at the logistics level, "We want to be

the standard for industry to follow by being completely transparent about our service flows – from the placement of the order to the shipment of the products – so that our customers can forecast their supply chain needs with greater accuracy."

Hands-on support for innovative start-ups

Medistri also offers advanced laboratory, manufacturing and, most recently, packaging validation services. Its laboratory work centers on microbiological, chemical and sterile barrier integrity testing. The Head of Business Development is proud of the rigorous tests that the company has in place to ensure the resistance and integrity of the packaged sterilized products, from shipping to storage, "On the laboratory side, we work closely with innovative start-ups and provide them with support during the prototyping phase, right through to final output. This special behind-the-scenes access to research and development is a huge source of motivation for our team."

What does the future hold for this thriving family business? "A few years ago, we pivoted our strategy slightly by shifting our focus from medtech to pharma. We anticipate that there will be exponential advances in the biotech industry thanks primarily to machine learning. We are ideally placed in the coming years to leverage these developments to further improve patient safety worldwide."

→ www.medistri.com



In 2023, Medistri sterilized almost 400 million pharmaceutical vials.

RENÉ JENNY AND BEAT VONLANTHEN TWO VOICES, ONE VISION



Beat Vonlanthen (left) and René Jenny (right) discuss the challenges and opportunities for the life sciences sector in Switzerland.

Two of the key figures in the Swiss life sciences industry hail from Fribourg. The first is René Jenny, who is the current President of GRIP-Pharma and former President of the European Healthcare Distribution Association (GIRP) in Brussels. The second is Beat Vonlanthen, who served as President of Swiss Medtech until May 2024. In this joint interview, the men share their thoughts on the challenges, opportunities and hopes that are driving this strategic sector, both regionally and nationally. They also explain what their respective organizations do and highlight the issues facing the life sciences industry.

What contribution do GRIP-Pharma and Swiss Medtech make to the life sciences sector in Switzerland generally and in the canton of Fribourg specifically?

René Jenny: GRIP-Pharma is the professional association of the life sciences sector in French-speaking Switzerland. Our mission is to help our members sharpen their competitive edge by facilitating knowledge-sharing and defending their interests in dealings with the cantonal and federal authorities. We also make every effort to put our members in direct contact with healthcare agencies and provide them with continuing education opportunities, such as conferences and working

groups on topics like quality assurance, regulation and political affairs.

Beat Vonlanthen: Swiss Medtech represents the interests of the medical technology industry. Nationally, the association supports over 1,400 companies which collectively employ 70,000 people and generate a sales revenue of 20 billion Swiss francs. It drives technological innovation by advocating for innovation-friendly conditions, facilitating access to international markets and encouraging collaboration within the sector. Regional initiatives like Swiss Medtech Romandie help to elevate Fribourg and Western Switzerland as major players in the national life sciences arena.

What are the main challenges facing these organizations, and how best should they respond to them?

Beat Vonlanthen: The sector faces considerable challenges, not least the administrative hurdles involved in implementing the European Union's Medical Device Regulation (MDR). Although these are essential for guaranteeing product safety, they have slowed down the process of bringing innovations to market and have led to a supply-side shortage of medtech products because there are not enough bodies to handle certification. The fact that there is still no institutional agreement between Switzerland and the European

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Union further complicates matters and jeopardizes the competitive edge that our firms have on the European market. We need to resolve this situation and find ways to overcome these obstacles and safeguard our standing.

René Jenny: I agree that regulatory density is dampening innovation and delaying patient access to new treatments. An exacerbating factor is that we don't have a framework agreement with the European Union. This situation cancels out the benefits of the mutual recognition agreement on medical devices and medicines and prevents us from taking part in major R&D programs. We need to take urgent action to improve our relations with the EU. Added to this is the relentless pressure on drug prices, which is leading to lots of products being withdrawn from the market because the manufacturers can no longer cover their production and marketing costs. This is the reason behind the current drug shortages in Switzerland.

In terms of innovation, what opportunities do you see for Switzerland's life sciences sector?

René Jenny: Switzerland has always been a life sciences leader, but we need to turn our scientific advances into concrete solutions with commercial potential. Personalized medicine is one promising avenue for Switzerland because it plays to our strengths in biotechnology and genomics. What's more, the growing integration of digital technologies like AI, telemedicine and connected devices opens up massive opportunities for better patient care. The key here, in my opinion, is providing support for innovation, particularly through incubators, accelerators and public and private funding.

Beat Vonlanthen: I totally agree. The opportunities for innovation are legion thanks in particular to digitalization and advances in materials technologies. Having

lived with diabetes for 40 years, I've experienced firsthand the incredible progress that has been made, like the launch of glucose monitors that connect to your smartphone. Medical device miniaturization and the use of artificial intelligence open a host of promising new avenues for innovation. However, we need to put in place a sound legal and ethical framework for these technologies.

"In Fribourg, we have already laid solid foundations thanks to high-potential start-up development initiatives.
The region is therefore well-equipped to spearhead innovation in the sector."
Beat Vonlanthen

How can Switzerland maximize its competitive advantage in the life sciences?

Beat Vonlanthen: Ensuring that the best possible framework conditions are in place is critically important. Federal and cantonal authorities must work closely with companies to stimulate innovation. In Fribourg, we have already laid solid foundations thanks to high-potential start-up development initiatives. The region is therefore well-equipped to spearhead innovation in the sector. Swiss Medtech has also joined forces with its German and Austrian counterparts. It culminated in the signing of a strategic collaboration agreement last year. This alliance allows us to shape regulations at the European level, which will be decisive for our continued competitiveness in the long term.

René Jenny: I too believe that stronger public-private collaboration is a must. The Fribourg ecosystem, with its numerous universities, technology campuses, support programs, clusters and healthcare institutions, provides fertile ground for projects that combine academic research and industrial

expertise. If we are to consolidate our international standing, speeding up regulatory processes in Switzerland and increasing R&D investment – which is already very generous – need to be at the very top of our to-do list. Deeper integration of sustainability considerations could also give our life sciences sector a real competitive advantage over other players and countries.

What is your assessment of collaboration between industry, the authorities and academic institutions?

René Jenny: Collaboration between these different players in Switzerland is admired internationally and is among the best in the world. Initiatives like TechTransfer, based at the University of Fribourg, is a perfect illustration of the synergies that exist between industry and higher education. Let's take it one step further and work towards greater and closer involvement of start-ups in these projects. This could accelerate innovation, especially in the digital health field. Beat Vonlanthen: These collaborations are a major strategic asset for Switzerland. Companies have a clear interest in working closely with universities and universities of applied sciences to develop innovative products. Providing start-ups, especially in the medical technology sector, with active support not only bolsters our position in the global market but also

→ www.grip-pharma.ch

stimulates the innovation ecosystem.

→ www.swiss-medtech.ch

BIOFACTORY COMPETENCE CENTER

FROM APPLIED RESEARCH TO PRODUCT DEVELOPMENT

The Biofactory Competence Center (BCC) has forged a stellar reputation since it was founded almost a decade ago. One of its core activities is applied research in pharmaceuticals, industrial biotechnology and food biotechnology, which also happen to be key growth sectors of the canton of Fribourg economy. Professor Carmen Jungo Rhême, the director of the Fribourg School of Engineering and Architecture-affiliated center, has a particular interest in antibiotic resistance, which the WHO has declared one of the major challenges facing our society today, "We have started working with the Centre Hospitalier Universitaire Vaudois (CHUV) on its clinical trial which is looking into the treatment of patients with bacteriophages. It's our job to optimize certain stages of this process." With close to 20 years' experience acquired at some of the biggest names in the pharmaceutical industry like CSL Behring, UCB Farchim, Merck Serono and Lonza, Prof. Jungo Rhême brings the high-level skills and expertise needed to devise processes that can be easily implemented in a Good Manufacturing Practice (GMP) environment.

Microorganisms with high added value

The CHUV trial is not the only project the BCC team is working on. It has partnered with Swiss companies and international consortia to explore other research areas, such as the valorization of biomass and its transformation into high value-added products such as biodegradable

bioplastics; the development of medical implants and staphylococcus aureus treatments; and the creation of microbial-based food products. As Prof. Jungo Rhême notes with a smile, "There's always something sprouting here!"

As a process optimization specialist, BCC also serves as a showroom for a number of major laboratory equipment manufacturers like Cytiva, which has provided the BCC laboratories with their viral vector production equipment. "Accelerating the pace of advanced therapy development relies on collaboration," Emmanuel Abate, President of Genomic Medicine & Head of Sustainability at Cytiva, points out. "Our relationship with the BCC affords us the opportunity to share our deep expertise and empower the next generation of scientists working in the rapidly growing field of genomic medicine."

Last but by no means least, the BCC is also a dedicated training provider. "We offer a pharmaceutical operator course," the director explains, adding that "It's the only one of its kind in Switzerland and there is high industry demand for people who have a qualification like this."

→ www.bcc.ch



MARLY INNOVATION CENTER

AN IDEAL HOME FOR THE LIFE SCIENCES



InnoMedica's own Nanofactory in Marly is an important success factor for the company and a clear commitment to Fribourg and Switzerland as a production location.

The **Marly Innovation Center** (MIC) is home to an impressive number of ambitious life sciences projects. With 7,000 m² of secure fine chemicals laboratories and customized clean rooms, not to mention flexible leasing options, the MIC is attracting cutting-edge firms and energizing the Fribourg ecosystem.

Its tenants include InnoMedica, which specializes in the development of nanomedical therapies to treat cancer and Parkinson's disease. As Stéfan Halbherr, Country Manager, explains, "Our goal is to transform the way we treat these diseases by developing more precise and less invasive drug delivery technologies. Our hope is that directly targeting diseased cells will not only boost the efficacy of the treatment but also keep dosages and side-effects to a minimum, which should in turn improve the patient's quality of life." The InnoMedica approach constitutes a major medical breakthrough and could be very good news for people living with cancer and Parkinson's.

Another life sciences firm based at the MIC is Seprify, a University of Fribourg and Cambridge University spin-out, which has developed a healthier and eco-friendlier cellulose-based, white pigment to replace titanium dioxide in pharmaceutical, food and cosmetics applications. Another green chemistry champion is **Bloom Biorenewables**, which uses lignin to create sustainable alternatives to petroleum-based products. This pioneering process opens countless opportunities for more sustainable plastics and fuel applications and could help eradicate our dependency on fossil fuels, one of the most pressing challenges of our time.

1,000-job mark

One of the Marly Innovation Center's earliest tenants is the **iPrint** Institute, which specializes in 3D printing of stem cells and other biomedical materials. Its works with academic and industrial partners are leading to major innovations in the field of regenerative medicine. The work carried out by medical analysis

specialist **Promed** sheds light on advances in disease screening and detection. Their new analysis processes promise to improve diagnostic accuracy, a welcome development for public healthcare providers. Last but not least, the **HT Group** specializes in planning solutions for facilities, such as operating theaters, which are subject to the most stringent hygiene standards. Its expertise guarantees safe and efficient work environments for healthcare professionals.

According to Mathieu Piller, Director of the MIC, "The flexibility, diversity, complementarity, synergies and value chains that make up the DNA of the Marly Innovation Center" are the qualities that make the center such an attractive business and research location. With more than 170 companies already based there, the number of people working out of the MIC is set to exceed the 1,000 mark by 2025.

→ www.marly-innovation-center.org

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Alcon

We Help People See Brilliantly.

At Alcon, we aspire to lead the world in innovating life-changing eye care products and technologies, because when people see brilliantly, they live brilliantly.

Each year our products touch the lives of millions of people living with conditions like cataracts, glaucoma, retinal diseases, and refractive errors. We offer the most complete line of ophthalmic surgical devices, as well as a differentiated portfolio of contact lenses, lens care solutions, and pharmaceutical and over-the-counter eye drops.

Alcon is also at the forefront of innovation, partnering with Eye Care Professionals to bring the gift of sight to more people around the world.

That's been our legacy for more than 75 years—and continues to guide our focus towards the brilliant future ahead.

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ALCON

FRIBOURG, A GLOBAL EYE CARE HUB 🗲



Alcon, the world's leading eye care specialist, manufactures and sells a wide range of ophthalmic products, including contact lenses.

The city of Fribourg is home to **Alcon**, the world's largest eye care company. Talent from no fewer than 38 countries are employed at Alcon's offices next to the main train station. According to Dimitris Brilis, General Manager of the ophthalmic giant's trading hub in Fribourg, from September 2024 the 200-strong team will enjoy an even better workplace experience thanks to the complete remodeling and renovation of the Fribourg site.

'See brilliantly, live brilliantly', the slogan of a recent Alcon campaign, succinctly captures the mission of the global eye care behemoth which employs 25,000 people across its sites in 50 countries. The Swiss-American company, which was founded in Texas in 1945, manufactures products that are sold in over 140 countries and used by more than 260 million patients. In addition to being the world's leading eye surgery provider, Alcon is one of the biggest players in the contact lens market. In 2023, it posted a net profit of 974 million US dollars and net sales of 9.37 billion dollars.

Innovation and cutting-edge technologies

"Innovation and cutting-edge technologies are the bedrock of Alcon's success and expertise, "They are our lifeblood, our driving force," Brilis adds. During the 2023 financial year, the company invested roughly 828 million US dollars in research and development, and currently has over 100 projects in the pipeline. According to the man who

oversees the group's international growth and exports, the pace of innovation at Alcon will not be slowing down anytime soon, "Millions of people around the world still need solutions to treat cataracts, myopia, astigmatism and glaucoma. This is what motivates us to keep doing what we are doing."

The General Manager also points out that the Fribourg site is integral to the group's growth strategy. As Alcon's global trading hub, it is at the heart of interactions "between all our factories and our international business operations". Key to the company's continued success is ready access to a talent pool of well-qualified workers. Fribourg offers this thanks to its close proximity to higher education providers and its central location both within Switzerland and the 'Health Valley' in the west of the country. The General Manager also singles out the cantonal authorities for praise, "They have never wavered in their support for us."

ightarrow www.alcon.ch

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