

The importance of the Life Sciences sector for the economy of the canton of Fribourg

A study by BAK Economics
commissioned by GRIP-pharma
and FDA

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Editorial

The Life Sciences sector, which includes pharmaceuticals, biotech, medtech, the wholesale of pharmaceutical goods, laboratory infrastructure & consulting, plays a crucial role in Fribourg's economy. More than 50 years ago, Fribourg's traditional industrial chemical industry provided the basis for the establishment of companies active in Life Sciences. This industry not only contributes to public health and the well-being of patients, it is also a powerful engine for economic growth. Strongly influenced by the development of Industry 4.0 and AI, it is a guarantee of rapid technological advances and a major source of gross value added per full-time equivalent job. Life Sciences and the Bioeconomy are one of the cornerstones of the Canton of Fribourg's economic development strategy.

Today, the canton of Fribourg is home to both flagship and niche players in the Life Sciences sector. With the youngest population in Switzerland and a high density of higher education institutions, Fribourg is an ideal place to recruit and secure the talent needed in this industry.

Recent events, such as the Covid-19 pandemic, have demonstrated the vital importance of the Life Sciences sector for resilience and health security.

This study, conducted by BAK Economics, is a joint project between the GRIP-pharma association, the Fribourg Development Agency and Life Sciences companies based in the canton of Fribourg (CSL Vifor, Grifols, OM Pharma, UCB and Verfora). It reveals the economic impact of Life Sciences on the canton's economy as a whole, and highlights its significant contribution in terms of employment, innovation and economic growth. The study, which is the fruit of a public-private partnership, was conducted using a combination of quantitative and qualitative analyses, and revealed relevant results on how this industry is boosting the local economy.

The Life Sciences sector not only generates jobs, but also contributes significantly to the canton's GDP. The industry is the canton's main driver of technological innovation. Investment in R&D is leading to major discoveries that are transforming healthcare and extending patients' lives.

Collaboration between the public and private sectors within this industry creates an innovation ecosystem that benefits the economy as a whole, and is a source of significant direct and indirect positive effects.

The study also highlights the advantages of the canton of Fribourg as a prime location for existing companies and new start-ups. It is an ideal place for companies that choose to relocate production or research activities as part of what is commonly known as 'derisking' and 'friendshoring'.

The results of our study also suggest that the Life Sciences sector is essential to public health and a key factor in economic stability and growth. The canton, which has invested in this industry, benefits and can expect substantial economic advantages in terms of job creation and technological innovation.

The study also shows that political decision-makers must continue to encourage investment in this sector through attractive framework conditions, support for R&D, public-private partnerships and stable economic and scientific relations with our largest trading partner, the European Union. The canton's continued commitment to strengthening education and training in the field of Life Sciences ensures a steady flow of qualified talent. Added to this are production capacities (CDMO), a gene therapy laboratory, a technology hall ideal for green chemistry applications and plenty of available building sites. Fribourg's strengths in the Life Sciences clearly go beyond the size of the canton.

The Life Sciences sector is a pillar of the modern economy in the canton of Fribourg. To maximise the benefits, it is essential that companies, education and research institutions and the government work together and invest in this activity.

Fribourg, the place for life sciences !



René Jenny
President, GRIP-pharma



Jerry Krattiger
Director, FDA

Executive Summary

The Life Sciences sector as an economic player and employer

Life Sciences is a major industry in the Fribourg economy, generating value added of more than one and a half billion francs in 2023. In comparison, this industry has generated more value than the construction, food or property sectors respectively. Around 3,300 full-time equivalent (FTE) jobs are associated with this value added, making it the most productive sector in the canton of Fribourg. Its performance is 3.2 times better than the average for the Fribourg economy.

In terms of both employment and value added, the Life Sciences sector - the pharmaceutical industry, biotech, medtech, wholesale of pharmaceutical goods, laboratory infrastructure & consulting - has been more dynamic than the Fribourg economy. Over the last ten years, the value added generated by Life Sciences has more than tripled and employment is now 1.4 times higher.

This superior performance is the result of the industry's high value added activities, which include production, research and development (R&D) - one in every 12 jobs is dedicated to R&D activities - and the marketing of the goods and services produced. To carry out these activities, the Life Sciences sector has to rely on a highly qualified workforce: 60% of staff have a tertiary-level qualification, compared with only 38% for the economy as a whole.

A driving force for the regional economy

The production, R&D and commercial activities of Life Sciences companies directly and indirectly generate CHF 1.96 billion, representing 10% of the Fribourg economy. Many regional companies benefit from the purchases and investments of Life Sciences companies, as well as from the consumer spending of their employees. In 2023, these indirect effects amounted to CHF 420 million in value added, 3,379 full-time jobs and CHF 301 million in salaries.

For every 100 francs of value added generated directly by the activities of the Life Sciences sector, a further 27 francs are produced in other industries. What's more, for every job in Life Sciences, one additional full-time position is created in the cantonal economy.

Fribourg's Life Sciences ecosystem

In order to carry out their activities successfully and achieve high levels of performance, Fribourg's Life Sciences companies not only collaborate with each other, but also benefit from the proximity of various players outside the industry, such as those in the healthcare sector, universities and technology campuses. The core Life Sciences sector - comprising the pharmaceutical, medtech and biotech industries - is supported by complementary industries that operate at different levels of the value chain, such as the wholesale of pharmaceutical goods, laboratory infrastructure & consulting.

The canton's central location extends the ecosystem beyond its borders, increasing exchanges with players in neighbouring cantons such as Berne and Vaud. At academic level, the universities of Fribourg, Lausanne and Berne, as well as the Ecole polytechnique fédérale de Lausanne (EPFL), the Haute école d'ingénierie et d'architecture de Fribourg (HEIA-FR) and the Institut Adolphe Merkle, are centres of excellence conducive to collaboration and the training of highly qualified personnel. The canton of Fribourg is home to five technology campuses. Entrepreneurs also benefit from support programmes such as Fri Up and Tech Transfer, which encourage technology transfer and thus growth.

The advantages of the canton of Fribourg for Life Sciences

A survey of Fribourg's Life Sciences companies revealed the many advantages of the canton of Fribourg as a business location. It also led to the formulation of recommendations aimed at further enhancing the quality of this location.

The canton of Fribourg benefits from a highly qualified and multilingual workforce that meets the needs of companies operating on a national and international scale. Fribourg's accessibility has also been identified as a key factor in the smooth running of business.

At a time when Swiss industry is facing a shortage of highly skilled workers, the attractiveness of the region is of key importance in attracting talent and highly qualified personnel. In this respect, Fribourg offers a good mix of a high quality of life and an affordable cost of living.

In addition, the technology campuses have contributed to the establishment and maintenance of numerous companies and start-ups, consolidating Fribourg's Life Sciences ecosystem.

Ways to improve the quality of localisation

A reduction in the tax burden - for both highly qualified workers and companies - can make it easier to locate companies with high value added (e.g. R&D or commercial activities) and to recruit highly qualified workers. The strong economic and demographic growth of the canton's regions must be anticipated in the area of infrastructure planning so that accessibility remains one of the canton's strong points. Finally, the technology campuses, which are already an asset for the canton of Fribourg, can be developed further. In particular, they make it possible to promote interdisciplinarity and innovation from which companies can benefit in order to meet the challenges and trends affecting their commercial activity.

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Part I

**The Life Sciences ecosystem
in the canton of Fribourg**

A rich history

The development of the Life Sciences sector in the canton of Fribourg has been punctuated by a number of key events and influenced by a number of major companies.

1950-1980

The canton of Fribourg is becoming increasingly industrialised, with the arrival or expansion of major companies such as Liebherr, Richemont, Sika and Wago.

The Galenica era

Galenica moved to Villars-sur-Glâne in the late 1970s. By expanding its activities, particularly production, and buying out other companies, Galenica developed the Villars site.

1992: Phonak moves to Murten

Phonak Communications, now Sonova Communications, offers innovative hearing care solutions.

UCB sets up in Bulle

The end of Ciba's activities in Marly coincides with the arrival of the Belgian biopharmaceutical group UCB in Bulle. A production unit was built. Today, more than 700 employees work there.

The Americans land in Fribourg

The 2000s saw the arrival of American companies Alcon and Pall. They are now major employers in Fribourg's Life Sciences sector.

Arrival of Ciba in the 1960s

The chemical industry expanded with the establishment of Ciba in Marly and Saint-Aubin. Two R&D campuses were built, notably in the fields of photography and veterinary medicine, laying the foundations for the Life Sciences sector.

A new site in Guin

In 1977, the Fribourg Development Agency approached the Merz+Dade blood group company, which later became Medion Grifols Diagnostics.

The end of the Ciba episode

In 1996, Ciba merged with Sandoz to form Novartis. The Marly site closed its doors in 2014 and became the Marly Innovation Center. The Saint-Aubin site now houses the AgriCo campus.

The Villars-sur-Glâne site

As a result of Galenica's takeovers and restructuring, a number of companies have been created and expanded, including Vifor Pharma, Verfora and OM Pharma. Today, several hundred people are employed at the Villar site.

Company profiles



CSL Vifor

CSL Vifor

CSL Vifor is an internationally renowned company which develops, manufactures and markets leading-edge pharmaceutical products and innovative therapies in the fields of iron deficiency and nephrology.

CSL Vifor strives to help patients with serious and chronic illnesses lead better, healthier lives.

With a production unit in St. Gallen, administrative headquarters in Glattbrugg and a sales subsidiary in Villars-sur-Glâne, CSL Vifor is a major player in the Swiss pharmaceutical industry.

Headquartered in Melbourne, Australia, parent company CSL employs 32,000 people and provides its life-saving therapies to people in more than 100 countries.

For more information about CSL Vifor, visit www.cslvifor.com.



**Medion Grifols
Diagnostics**

GRIFOLS

Medion Grifols Diagnostics

Medion Grifols Diagnostics SA develops, produces and distributes diagnostic reagents in the field of immuno-haematology; the reagents are used to guarantee compatible blood transfusions. Customers are located in more than 50 countries on all continents.

Medion Grifols Diagnostics SA was founded in 2009, but the company's history dates back to the 1950s. In 1977, the Fribourg Development Agency facilitated its move to Guin, where the company is still based today.

Since 2009, Medion Grifols Diagnostics has been part of the Spanish pharmaceutical and diagnostics group Grifols, headquartered in Barcelona. Grifols is a listed company with 23,000 employees in over 30 countries and an 80-year tradition in the processing of human plasma.

At the Guin site, 70 employees of 10 different nationalities cover the entire value chain, from research and development to production and distribution.



OM Pharma

OM Pharma is a global biopharmaceutical company based in Geneva.

Active in the prevention of respiratory and urinary tract infections, it is a leader in the development, manufacture and marketing of bacterial lysates. With the aim of improving the lives of many patients, OM Pharma makes its products available in over 100 countries.

Its Swiss subsidiary is based in Villars-sur-Glâne, in the canton of Fribourg. It focuses on the local market in the fields of respiratory, urological and gynaecological health, as well as central nervous system disorders.

OM Pharma Suisse SA has a solid network of partners and a portfolio of around thirty varied and innovative drugs.

Its highly specialised teams are dedicated to marketing, sales, medical, regulatory, pharmacovigilance and business development activities.



UCB

UCB is a global biopharmaceutical company specialising in the therapeutic areas of immunology and neurology.

UCB is headquartered in Brussels (Belgium) and employs nearly 9,000 people in more than 40 countries, including more than 700 skilled workers in Switzerland.

Since 1996, UCB has invested more than 650 million Swiss francs in its Bulle site, equipping it with innovative, state-of-the-art industrial production tools.

The UCB branch in Bulle is committed to helping improve the lives of thousands of people suffering from serious illnesses.

It is the first pharmaceutical company in Switzerland to be certified according to Equal Salary for having applied equal pay for men and women.



Verfora

We are the Swiss leader in everyday health, beauty and well-being.

Our story began in 1951, when a group of passionate pharmacists decided to offer their colleagues an ideal range of products for professional advice.

Today we have a unique portfolio of well-known Swiss brands (Algifor, Triofan, Merfen etc...) as well as brands from renowned partners in the fields of OTC, complementary medicine and dermo-cosmetics.

We are also active internationally: 50 distributors in 40 countries are successfully developing our Perskindol and Anti-Brumm brands, among others.

Our team of more than 200 committed employees is at the service of pharmacies, drugstores, doctors and patients - in the service of health.

Verfora - for life.

www.verfora.ch

Numerous players of national and international importance

Fribourg's Life Sciences ecosystem is made up of a large number of players with complementary activities. The more these activities are developed and extended, the more synergies are created and the greater the industry's competitiveness. The ecosystem comprises six main groups of players.

The Life Sciences sector is made up of three main industries – pharmaceuticals, medtech and biotech – and closely related industries – wholesale of pharmaceutical goods, laboratory infrastructure and consulting. The latter are support industries for the core Life Sciences business, providing a range of intermediary services.

Companies in Fribourg benefit from the canton's central location between French- and German-speaking Switzerland. Accessibility and bilingualism encourage interaction with industries in neighbouring cantons, which also enjoy a large industrial base in the Life Sciences sector.



Education and research have a significant impact on innovation and business performance by encouraging collaboration and developing a highly skilled workforce. The canton of Fribourg has a number of institutes of national importance in this field, and is located close to some of the world's top-performing institutions.

The University of Fribourg, Haute école d'ingénierie et d'architecture, the Adolphe Merkle Institute and the HEG & Innovation Lab are located directly in the canton. In addition, the Universities of Lausanne, Bern and Neuchâtel, as well as EPFL and the Centre Suisse d'Electronique et de Microtechnique (CSEM), are located in neighbouring cantons and are easily accessible.



Medtech vs. Biotech: knowing the difference

For the purposes of this study, **medtech** includes the manufacture of medical equipment and instruments. In concrete terms, screening tests, MRI (Magnetic Resonance Imaging) machines, stents and syringes are examples of medtech products.

Biotech is defined as research and development in biotechnology, in particular the application of science and technology to living organisms.

Technology campuses offer infrastructure and services to start-ups and companies based there, as well as to other companies in the canton. Fribourg is home to five main technology campuses: bluefactory, Marly Innovation Center, La Maillarde, Le Vivier and AgriCo.



These five sites are also home to various exchange platforms and associations - the Biofactory Competence Center, the iPrint Center, ROSAS and the Plastics Innovation Competence Center - which promote technological development and innovation in key areas for the Life Sciences.



The **support programmes** help companies access financial and material resources and provide advice, particularly in the areas of law, communication and intellectual property.

Fri Up supports start-ups, facilitates business creation and encourages entrepreneurship. Tech Transfer promotes the commercialisation of research projects within start-ups or companies.

At inter-regional and national level, there are numerous programmes, such as the Swiss National Science Foundation (SNSF), Innosuisse, PLATINN and Alliance.

Healthcare players are important partners for Life Sciences companies, particularly by offering opportunities for collaboration. These synergies stimulate innovation and the development of new products.



The canton of Fribourg is home to several hospitals, including the Hôpital fribourgeois (HFR), which is a university teaching and research hospital. Two university hospitals, the CHUV in Lausanne and the Inselspital in Bern, are located on the canton's doorstep.

By working with healthcare players having highly specific needs, in particular university hospitals, companies can develop specialised, high value added products and services, identify upstream needs and create competitive advantages.

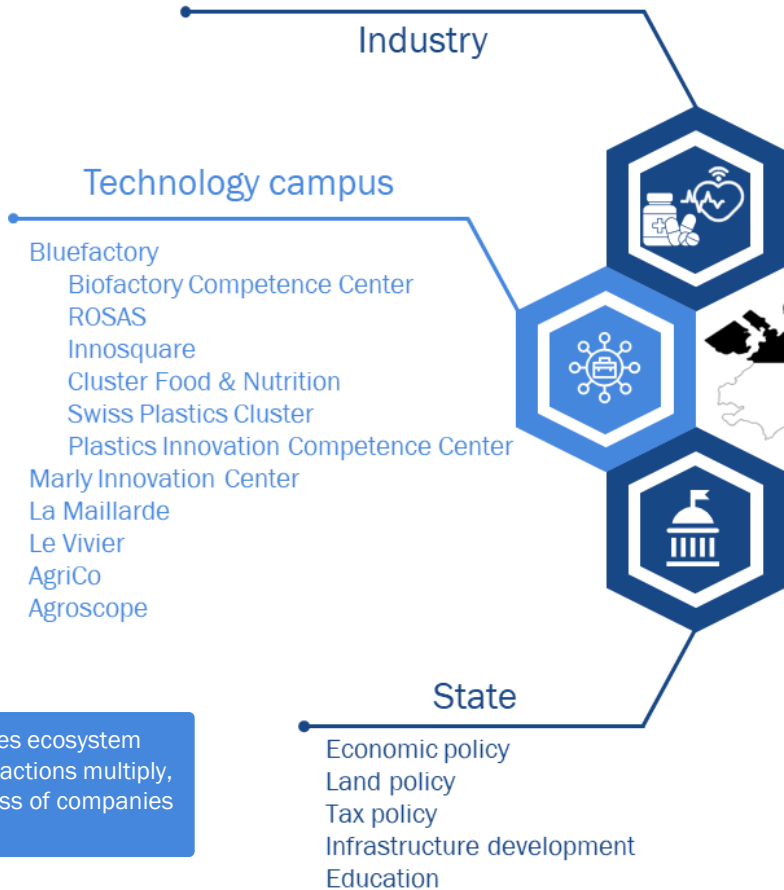


Government also plays an important role in the ecosystem. It influences the industry's competitiveness through favourable taxes, infrastructure development, land policy, support programmes, as well as funding for technology campuses and the education system.

The Fribourg ecosystem

The interactions between the various players generate synergies that foster innovation and competitiveness in the Life Sciences sector.

	Employment (EPT)
Fribourg's economy	126,500
Medtech	1,355
Pharma Biotech	1,250
Related industries	690
<u>Neighbouring cantons</u>	22,050



As the Life Sciences ecosystem expands and interactions multiply, the competitiveness of companies increases.

Note: numbers are rounded; refers to the year 2023

of Life Sciences

Hôpital fribourgeois (HFR)
Hôpital Daler
Clinique Générale (Swiss Medical Network)

Neighbouring cantons: University hospitals
CHUV, Lausanne
Inselspital, Bern

Interaction between the various players within the canton and with those in neighbouring cantons should be encouraged.

Health

Support programmes

Fri Up
TechTransfer Fribourg

Inter-regional and national level

Alliance
Innosuisse
PLATINN
SNF
Alp ICT
Bio Alps
CleantechAlps
Micronarc

Education and research

HEG & Innovation Lab Fribourg
HEIA-FR
Institut Adolphe Merkle
Unifr

Neighbouring cantons
EPFL, Unil et HEIG-VD, Lausanne
UNIBE, BFH et sitem-insel , Bern
UNINE, CSEM et HE-Arc, Neuchâtel

"Switzerland needs an institutional agreement with the EU as soon as possible".

Olivier Curty is a member of the Government of the Canton of Fribourg and has been in charge of the Direction de l'économie, de l'emploi et de la formation professionnelle DEEF since 2017. He is also Vice-Chairman of the Board administration bluefactory Fribourg-Freiburg SA.



What would be the consequences for Fribourg's economy if negotiations on an institutional agreement between Switzerland and the EU failed, and what could politics in Fribourg do in this context?

Exports from the canton of Fribourg total more than CHF 5 billion a year, more than half of which goes to the European market, from which more than 70% of our imports originate. The EU is therefore our main economic partner. Access to the EU's internal market is therefore crucial for us, and any weakening in this respect would necessarily have harmful consequences for our businesses. The Fribourg State Council regularly lobbies in support of the bilateral approach, both at inter-cantonal conferences and with the Federal Council.

Over the last few decades, a number of Life Sciences companies have set up in the canton of Fribourg and have grown considerably. Those in the Life Sciences sector are generally

active internationally and very export-oriented. This is the case, for example, of UCB Farchim, which has invested more than 650 million francs in building new infrastructure at its Bulle site since 1996. The number of employees has increased more than tenfold over this period. In order not to jeopardise these achievements and future development, Switzerland needs a institutional agreement with the EU as soon as possible.

Recruiting highly skilled workers is a problem that companies often face. Is the canton of Fribourg working on solutions to stem this shortage?

Fribourg is the canton with the youngest citizens in Switzerland. Our population has grown by more than 25% in 15 years. So, Fribourg has a lot to offer, with more than 10,000 students at the University, around 2,500 at our four universities of applied sciences, and more than 9,200 apprentices trained every year. But matching training to the ever-changing needs of the economy is always a challenge. We are currently working on a new version of the Act for the "formation professionnelle" to make it more flexible and hence be better able to respond to the challenges of vocational training.

Start-ups are an essential part of the Life Sciences ecosystem. What support measures are in place to help entrepreneurs get started?

The canton of Fribourg has a very active start-up scene, with a wide range of financial support and coaching instruments available to start-ups (Seed Capital, Venture Capital, Fri Up, etc.). We also organise the Prix IFF (Innovation Fribourg-Freiburg) every two years, which includes a Start-up category, giving high visibility to the winners. The winning start-up of the 2022 edition, Neuria, active in Life Sciences, was a spin-off from the University of Fribourg. This technology transfer from universities is fundamental, and we are proud to see innovative and promising start-ups developing in the canton.

Is Fribourg's accessibility and the development of its road and public transport infrastructure an important factor in maintaining and attracting new businesses?

Certainly. We are fortunate to be very well located on the main road and rail routes in Switzerland and Europe, and equidistant from the country's main centres and airports (Geneva, Basel, Zurich). Our bluefactory innovation district is just a 5-minute walk from the station. In 2020, we also set up an Etablissement cantonal de promotion foncière (ECPF), which is virtually unique in Switzerland, and is working successfully to provide companies with serviced, well-located land on which to set up and expand in our canton.

A close-up photograph of a scientist wearing a white lab coat and blue nitrile gloves. The scientist is using a blue pipette to transfer a liquid into a petri dish. The background is blurred, showing the scientist's face and eyes. A semi-transparent blue rectangular box is overlaid on the image, containing the text.

Part II

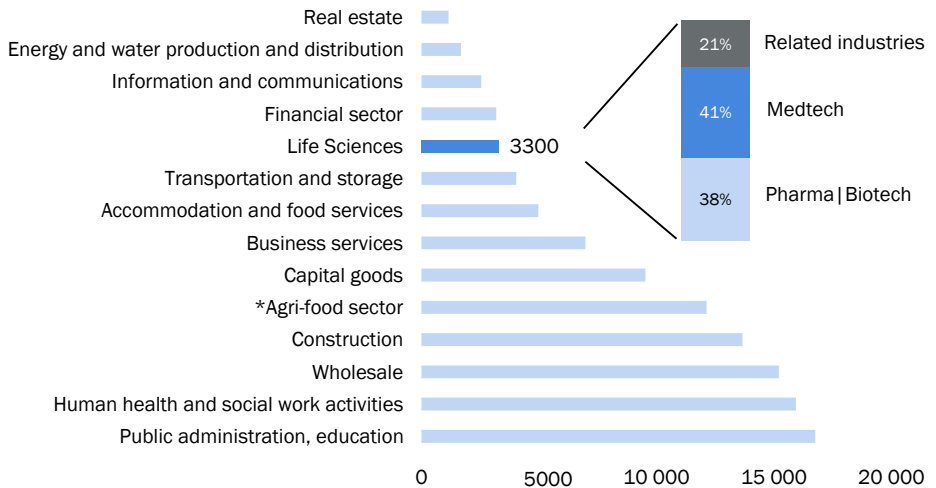
**The Life Sciences sector as
employer and trainer**

Nearly 3,300 jobs in Life Sciences

The Life Sciences sector will account for around 2.6% of the more than 126,500 jobs¹ in the canton of Fribourg in 2023, which is comparable in size to the financial sector. It also accounts for 2.9% of Swiss employment in that sector.

The core of the Life Sciences sector - medtech, pharmaceuticals and biotech - accounts for almost 80% of the sector.

Related industries such as laboratory infrastructure, wholesale of pharmaceutical goods and consultancy account for 2 out of every 10 jobs in the Life Sciences sector.



Size and structure of the Fribourg Life Sciences sector, 2023

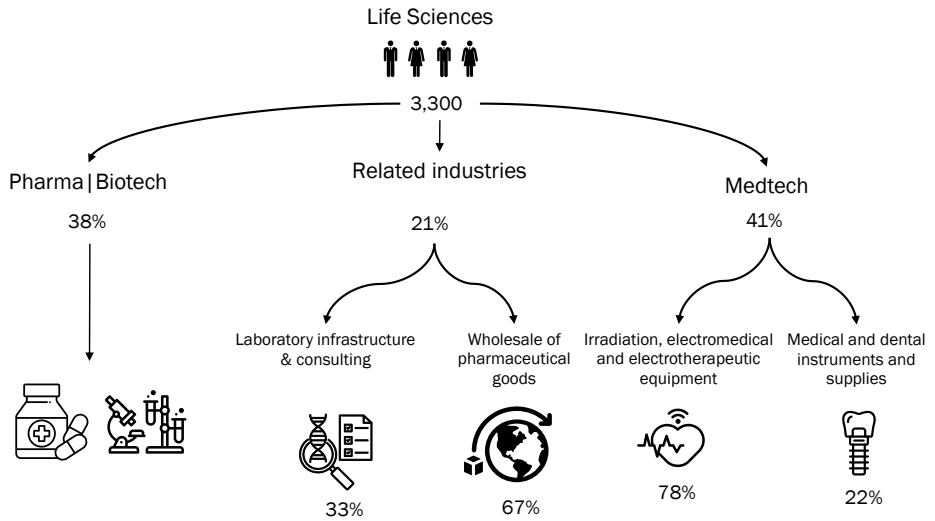
Jobs in full-time equivalents (FTE); rounded figures

*Includes the primary sector

Sources: FSO, BAK Economics

¹ In this study, employment is always measured in full-time equivalents (FTE). For example, two people working at an occupation rate of 50% correspond to 1 full-time equivalent job.

The most important sub-branches are the pharmaceutical industry and the manufacture of medical irradiation, electromedical and electrotherapeutic equipment. The wholesale of pharmaceutical goods is also a major player in the canton's Life Sciences ecosystem.

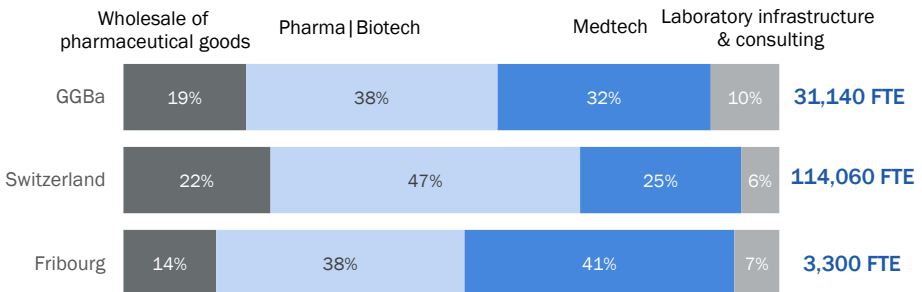


Distribution of jobs in the Fribourg Life Sciences sector, 2023

Jobs in full-time equivalents (FTE); rounded figures

Sources: FSO, BAK Economics

The medtech sector is proportionally more important in the canton of Fribourg, while the pharmaceutical industry is less important in terms of relative size. It should be noted that the wholesale of pharmaceutical goods is also more important in Switzerland and in the GGBa region¹.



Distribution of employment in the Life Sciences sector in the canton of Fribourg, the GGBa region and Switzerland, 2023

Jobs in full-time equivalents (FTE); numbers may not add up due to rounding.

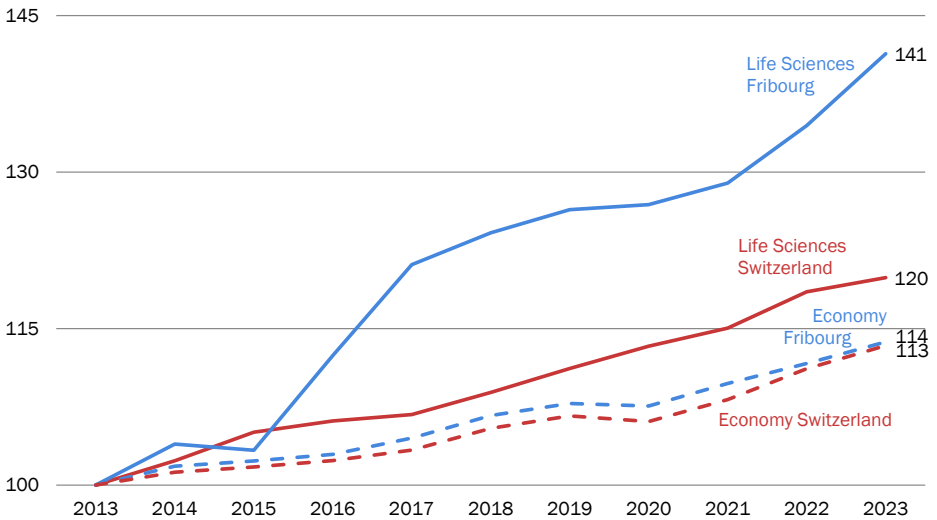
Sources: FSO, BAK Economics

¹ GGBa region: includes the cantons of Bern, Neuchâtel, Fribourg, Geneva, Vaud and Valais

850 jobs created over the last 10 years

The Life Sciences sector has grown more dynamically than the economy as a whole. Around 850 jobs have been created since 2013, despite a slowdown during the Covid-19 pandemic.

Although economic growth in Fribourg and Switzerland is relatively similar and has moved in parallel over the last 10 years, the Life Sciences sector has been much more dynamic in the canton of Fribourg than in Switzerland as a whole.



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

Indexed 2013 = 100; change based on FTEs

Sources: FSO, BAK Economics



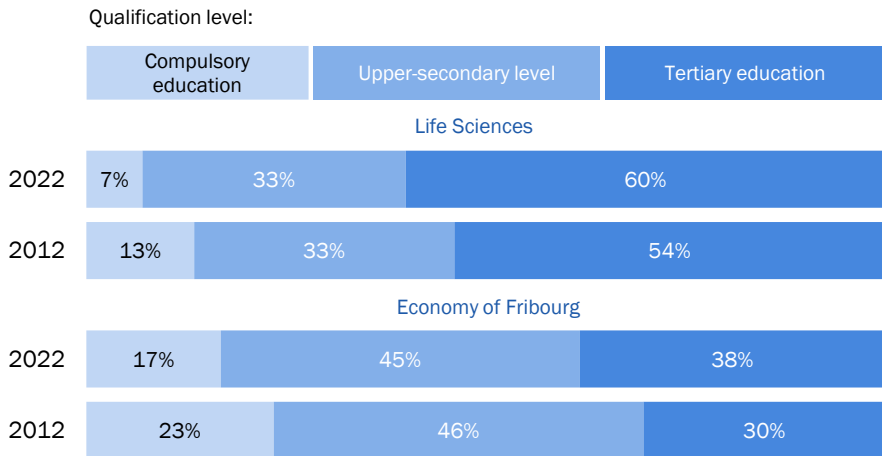
“OM Pharma Suisse SA has been established in the canton of Fribourg since 2020. In less than 4 years, the number of our highly qualified employees has increased by 50%, demonstrating our growth and the economic development of the Life Sciences sector in the region.

Dr Daniele Andreutti, General Manager, OM Pharma Suisse SA

Highly qualified people are in demand

To be competitive at national and international level, companies in the Life Sciences sector must be highly innovative as well as produce and commercialise high value added goods. The industry is also highly regulated. In this particular context, the various activities (R&D, production, marketing, consultancy, etc.) require a high level of training. Moreover, Life Sciences companies also offer many apprenticeships.

Almost two-thirds of the employees in this sector have a tertiary degree. Over the past 10 years, this proportion has increased significantly. In comparison, just over one in three employees in the Fribourg economy as a whole has completed higher education.



Level of education of employees in the canton of Fribourg, 2012 and 2022

Level of education of working people; any discrepancies are due to rounding

Sources: FSO, BAK Economics



“As our production activities expand, recruiting qualified biotechnology personnel remains a challenge. By extending our search for candidates to other cantons and cross-border regions of Switzerland, we are able to fill vacancies efficiently and support the growth of our company.

Fabrice Vericel, Head of Site & Head of Manufacturing, UCB Bulle

"The aim of regulation is not to prevent, but to enable".

Johanna Gápány has been elected to the Council of States since 2019, and sits on the Science, Education and Culture (EC), Finance (CE) and safety social and public health (EC). She is also Vice-Chairman of the Board of the foundation of Switzerland Innovation.



One of the major challenges facing the Life Sciences sector is regulation, particularly in terms of pricing, market access and compliance with ESG criteria. What can the Council of States do on this issue to keep the Life Sciences sector competitive?

Regulation makes sense, not least to ensure quality and healthy competition between market players. However, it must not be paralysing or cancel out the effects of work. Our action lies in defining attractive framework conditions that enable professionals to develop what the public needs. In my opinion, our action also lies in guaranteeing effective controls, simple procedures and fair treatment for the various players. Ultimately, the aim of regulation is not to prevent, but to enable. When we put the brakes on necessary change, we fail.

According to the Swiss government, the main responsibility for ensuring a secure supply of medicines lies with industry, but Switzerland, like other countries, is facing supply disruptions. Could supporting local production units be a solution?

The supply of medicines is a priority and in the public interest. To strengthen it, we need to ensure favourable conditions for the companies that produce them. For example, encouraging cross-border shopping for certain medicines runs counter to a solid and sustainable supply. We also need to ensure that the conditions under which medicines are placed on the market are sufficiently attractive for the public to have rapid access to them. To this end, the procedures for bringing a drug to market must be as swift as possible. As for direct support for production units, in my opinion this could be envisaged for certain pharmaceutical products that are not available on our market. In this area, our relations with Europe are also decisive, and we absolutely need mutual recognition agreements to consolidate this market and strengthen it here at home.

Digitalisation in the healthcare sector, particularly with the electronic patient file, is an important aspect of innovation in the Life Sciences sector. What legislative advances have been made in this area?

It's a shame that the electronic patient Record (EPR) does not do justice to our country's capacity for innovation. The last decision was a financial one. This involved providing financial support for the opening of files, via the various reference communities. The total revision of the EPR Act was also put out to consultation in June 2023 and will be dealt with during this legislature. The following changes are to be incorporated: obligation for all care providers to join the EPR, clarification of tasks between the cantons and the Confederation, guarantee of data security and the possibility of deleting data, clarification of patient consent. The essential point, in my opinion, is the obligation for all care providers to join a community and to offer documents in electronic form in order to make the EPR usable, practical and attractive for patients.

In the Council of States, you also filed a motion for the creation of an innovation fund. Why is such a fund important for the economy, and in particular for the Life Sciences sector?

Today, the critical stage for many start-ups is the moment when they bring a breakthrough product or service to market. At this point, they often cannot find the necessary funding in Switzerland.

Our country invests only 20% of the amounts needed to commercialise the cutting-edge technologies that emerge from its scientific laboratories, which means that we lose capital control of the most innovative companies and make them dependent on foreign funds. The figures bear this out: 77% of total venture capital funding for start-ups comes from abroad. The aim is to counter this trend and create a fund made up of private and public resources. In my view, it's a question of logic. If we invest in research, then we must give ourselves the means to see these companies develop here, create jobs, contribute to the development of our country and, of course, give these breakthrough products and services the Swiss brand. This would be facilitated by the creation of a fund financed by the public and private sectors.

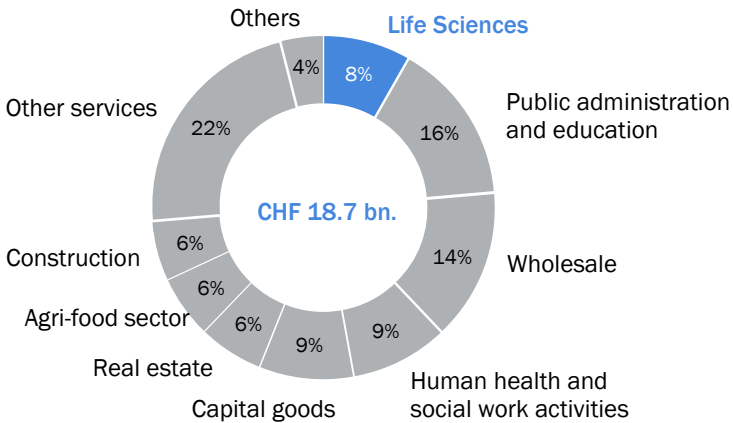
Part III

The Life Sciences sector as an economic driver



A key industry in the cantonal economy

The 3,300 employees (in FTEs) of the Life Sciences sector in the canton of Fribourg generated a value added of more than one and a half billion Swiss francs in 2023. This means that Life Sciences related activities produced more than the agri-food, construction or real estate sectors.



Gross value added by industry in the canton of Fribourg, 2023

share of total economy, in %; rounded figures

*Includes the primary sector

Source: BAK Economics

Of every CHF 100 of value added created in the canton of Fribourg, CHF 8 is attributable to the Life Sciences sector.

Gross value added: definition

Gross value added is defined as the value actually created when a product or service is manufactured. Mathematically, it is the difference between the total output of an industry and the intermediate consumption required to produce it. Intermediate consumption includes all external production costs that are purchased from third-party companies (e.g. energy, raw materials, rent).

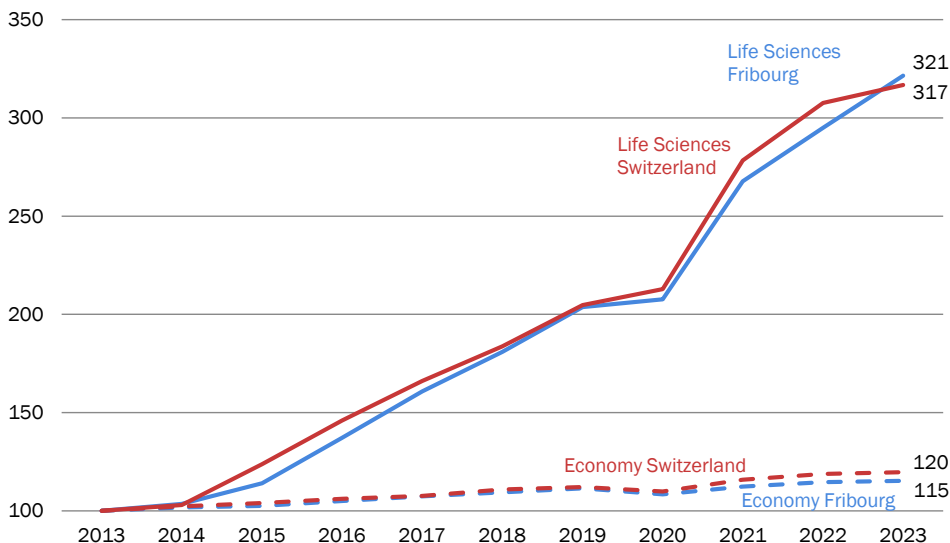
Unlike nominal gross value added, real gross value added is not dependent on price movements and therefore reflects the real, inflation-adjusted dynamics of economic output.

Life Sciences: a driving force for Fribourg's economy

Over the last ten years, Fribourg's Life Sciences sector has more than tripled the value it generates. Between 2013 and 2023, real value added grew by an average of 12.4% per year, significantly faster than the other cantonal sectors. The canton's economy as a whole grew by 1.4% a year over the same period.

Compared with the rest of Switzerland, growth in the Life Sciences sector was slightly higher in the canton of Fribourg. Conversely, the economy as a whole was more dynamic at national level.

The gross value added of Fribourg's Life Sciences sector increased more than threefold between 2013 and 2023, whereas that of the economy as a whole was only 1.15 times greater.



Growth in real value added in the canton of Fribourg and in Switzerland, 2013-2023

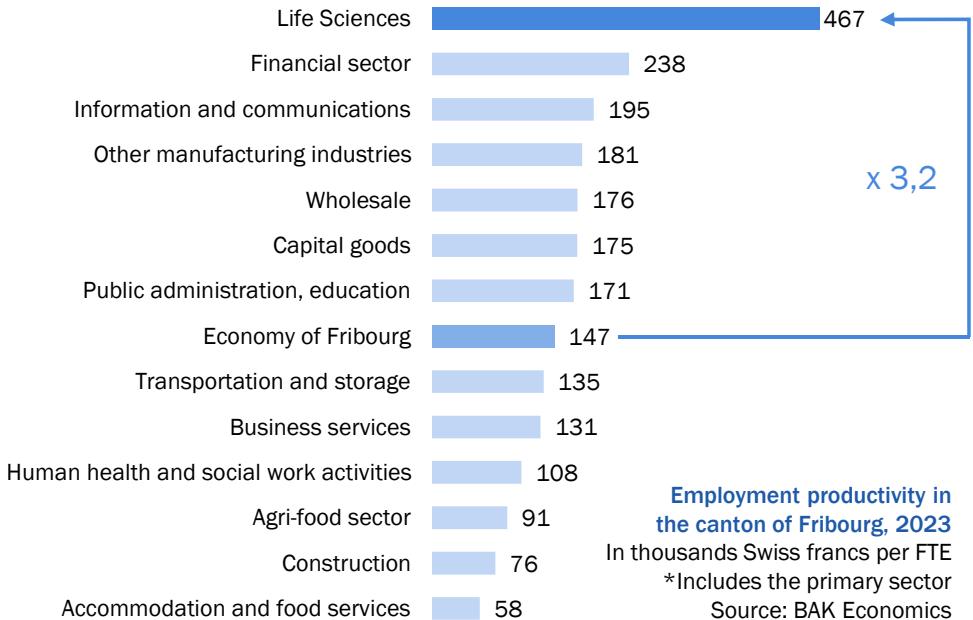
indexed 2013 = 100; real change adjusted for price variations

Source: BAK Economics

Productivity three times the cantonal average

At almost CHF 467,000 per job (in FTE), employment productivity in the Life Sciences sector is the highest in the canton of Fribourg, almost twice as high as in the financial sector.

Employment productivity determines the performance of an industry and measures the value added generated per unit of labour. Several factors influence productivity, including capital intensity, innovation and employee qualifications. Life Sciences are characterised by high capital intensity, strong R&D activities and above-average employee qualification. This makes it possible to carry out high value added activities (R&D, production, marketing, regulatory affairs, etc.).



“ GRIP-pharma is made up of companies in French-speaking Switzerland of all sizes - from start-ups to multinationals. Through its activities, GRIP-pharma encourages the dissemination and exchange of knowledge and the promotion of training, thereby strengthening the competitiveness of its members.

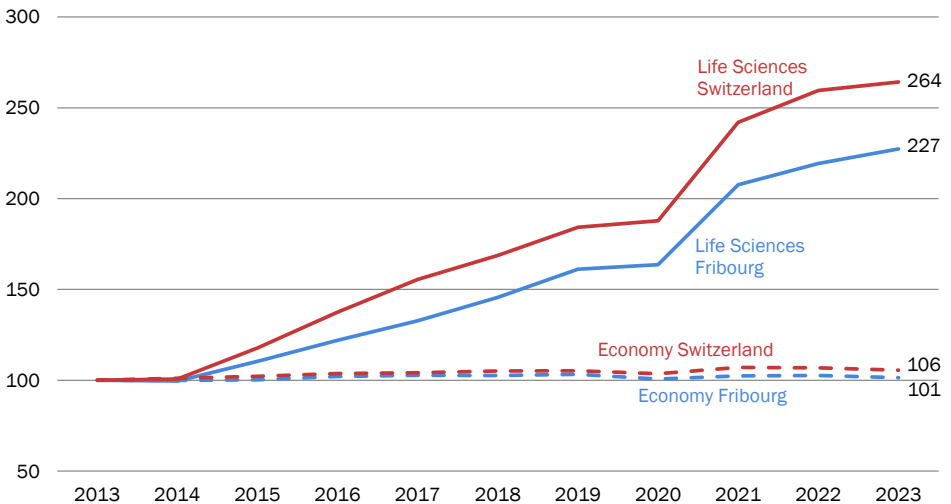
René Jenny, Chairman, GRIP-pharma

Productivity growth ensures competitiveness

Productivity growth is the source of all competitiveness. By continually increasing its productivity, Fribourg's Life Sciences sector will remain competitive at international level. In 2023, productivity in the sector is almost 2.3 times higher than in 2013, representing an average annual increase of 8.6%.

Although productivity growth in the Life Sciences sector is not as dynamic in the canton of Fribourg as it is in Switzerland, it remains significantly higher than that of the canton's economy as a whole. This difference is mainly due to the fact that the medtech industry, which is more heavily concentrated in the canton of Fribourg, has a lower productivity dynamic than the pharmaceutical industry.

Productivity growth in the Life Sciences sector is therefore of great importance to Fribourg's economy.



Growth in real employment productivity in the canton of Fribourg and Switzerland, 2013-2023

Indexed 2013 = 100; price-adjusted real change; employment in full-time equivalents

Source: BAK Economics

"In the last three years, there have been three new start-ups originating from the University".

Katharina Fromm has been Rector of the University of Fribourg since February 2024, and oversees the Promotion Research service, Technology Transfer Office and University Development.



What measures has the University of Fribourg put in place to ensure that cutting-edge research finds its way to industrial applications, particularly in the region?

The University of Fribourg has a Technology Transfer Office (KTT) that works on a wide range of tasks: it raises awareness of all aspects of innovation within the university community; it helps scientists to protect their discoveries (patents, licences, etc.); it has discoveries assessed by an Intellectual Property Board; it supports scientists in setting up start-ups; it organises events that bring scientists into contact with the canton (economic promotion, Innosquare, Fri-Up, etc.) and with the local (for example via the Fribourg Chamber of Commerce and Industry), national and international economy; it supports the drafting of Innosuisse and Bridge projects, as well as direct research contracts with the industry.

The University also encourages innovation through small and large proof-of-concept projects. Wherever possible,

it also provides facilities and infrastructure, such as analytical platforms. In terms of teaching, Unifr offers its students a Business Concept Training course, which has become a flagship course in the field of innovation. This course will be extended in 2025.

Do you have an example of successful collaboration between cutting-edge research and the Life Sciences sector in the canton of Fribourg?

In the last three years, three new start-ups have emerged from the University: Xemperia, Seprify and Neuria. Xemperia specialises in cancer detection, Seprify transforms cellulose into functional materials for industry and Neuria is a cross-disciplinary start-up that aims to reduce excessive consumption behaviour such as eating unhealthy foods, drinking alcohol or smoking, using gamification systems. Still on the subject of food, the new Food Research and Innovation Center (FRIC) is already working with a large number of local, national and international companies active, for example, in dairy, cheese, coffee and chocolate production. Another example is antimicrobial coatings for implants (hip, knee, dental implants) or surfaces in hospitals. The University is therefore demonstrating its innovative strength in one of its flagship areas, Life Sciences, with several developments still in the pipeline.

Another role of a university is teaching. The economy is currently facing a shortage of highly qualified workers. How can the University of Fribourg help to overcome this shortage?

Around 2,000-2,500 students from all fields complete their studies each year. As well as having cutting-edge knowledge in their field, their strengths lie in the way they learn, their open and critical minds and their ability to innovate. Most of our students are already working in the industry. The University also strengthens its links with local businesses through internships, excursions and its Career Forum.

The University also wants to emphasise its cutting-edge fields, for example in food and agriculture, Life Sciences, materials or human-artificial intelligence interaction, etc. Unifr has also created an interdisciplinary cluster around the theme of Switzerland's future, a public-private partnership.

Other areas could further strengthen Fribourg's position, such as pharmacy training (possibly with a specialisation in hospital pharmacy) and, if we can think big, French-speaking training for veterinary surgeons. We could also envisage a larger number of students in human medicine.

In its 2030 strategy, the University of Fribourg wants to encourage inter-disciplinarity, in particular through centres of expertise and flexibility in training. How can this strategy respond to the challenges and trends of the Life Sciences sector, such as technological progress and digitalisation?

The University of Fribourg wants to strengthen the interdisciplinary fields of food: biology, chemistry (food processing), marketing, law, psychology and health effects. The HUMAN-IST research centre, which focuses on human-machine interaction, can support digitisation. Unifr can also make its sophisticated device analysis platforms available and provide advice. A great strength of the University of Fribourg also lies in its holistic, interdisciplinary approach, as most current and future problems are no longer the concern of a single discipline.



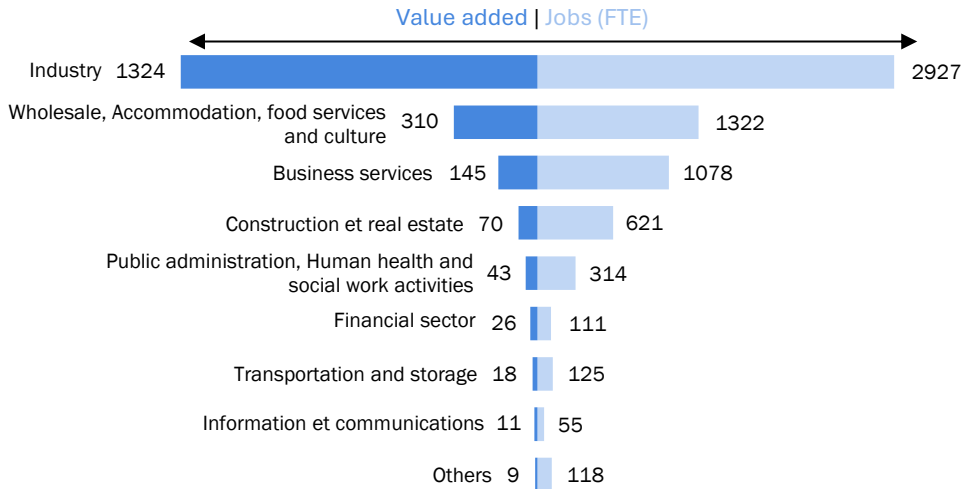
Part IV

The Life Sciences sector, a catalyst for other sectors in the canton of Fribourg

Creation of 1.96 billion in value added

According to the impact model, Fribourg's Life Sciences sector generates a total gross value added of almost CHF 1.96 billion. The total effect on employment is around 6,672 full-time equivalents (FTEs).

The effects are highest in industry, both in terms of value added and jobs. This is due to the value chains in the Life Sciences sector, where many intermediary service providers are active in industry (e.g. chemicals, energy, precision manufacturing). Wholesale, accommodation, food services and culture benefit from employee spending.



Indirect effects in other sectors

Nominal gross value added in millions Swiss francs; employment in FTEs

Source: BAK Economics



“ Life Sciences are an integral part of Fribourg's economic landscape and have made a significant contribution to the canton's economic development and prosperity. This makes Fribourg an ideal location for Life Sciences companies and the talented people they employ.

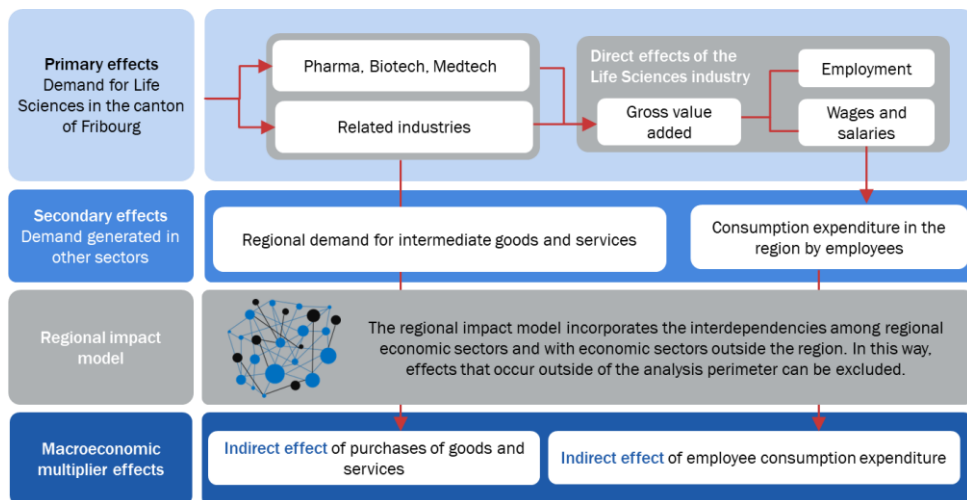
Jerry Krattiger, Director, Fribourg Development Agency (FDA)

Methodology

The central instrument of the impact analysis is a static equilibrium model. The model's system of equations is derived from structural information on the composition of supply and demand for goods and services in the various sectors. It makes it possible to analyse the economic effects resulting, in the economic circuit as a whole, from the payment flows linked to the economic activity of Fribourg's Life Sciences sector.

There are three levels of impact:

- Firstly, the direct effects of the Life Sciences sector include the sector's direct performance in the strict sense of the national economy (gross value added) and the resulting effects on employment and income.
- Secondly, we need to specify the various secondary effects, i.e. Life Sciences companies' spending on goods and services and employees' consumer demand.
- The third level analyses the overall regional effects in the regional economy triggered by the various secondary effects. This involves estimating the value added, the number of jobs and the income generated in other sectors as a result of the activities of Fribourg's Life Sciences sector.



Impact model

Source: BAK Economics

6,672 jobs related to Life Sciences

In 2023, the activities of Life Sciences companies, such as production, R&D and sales, generated a direct value added of CHF 1.54 billion. The indirect impulses in other industries of Fribourg’s economy amounts to 420 million francs. There is therefore a multiplier of 1.3.

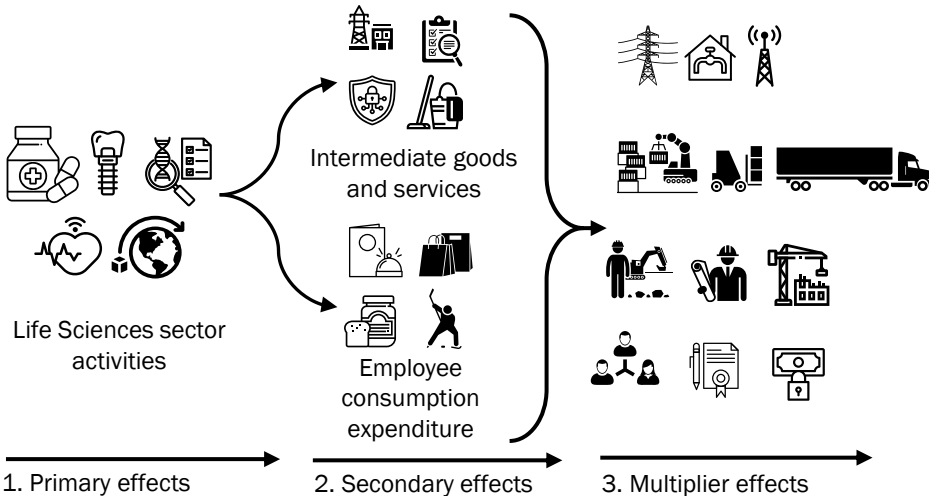
A total of CHF 1.96 billion resulted from the activities of Life Sciences companies, representing 10.5% of the Fribourg economy.

For every CHF 100 of value added generated by Fribourg's Life Sciences sector, a further CHF 27 is created in other regional industries.

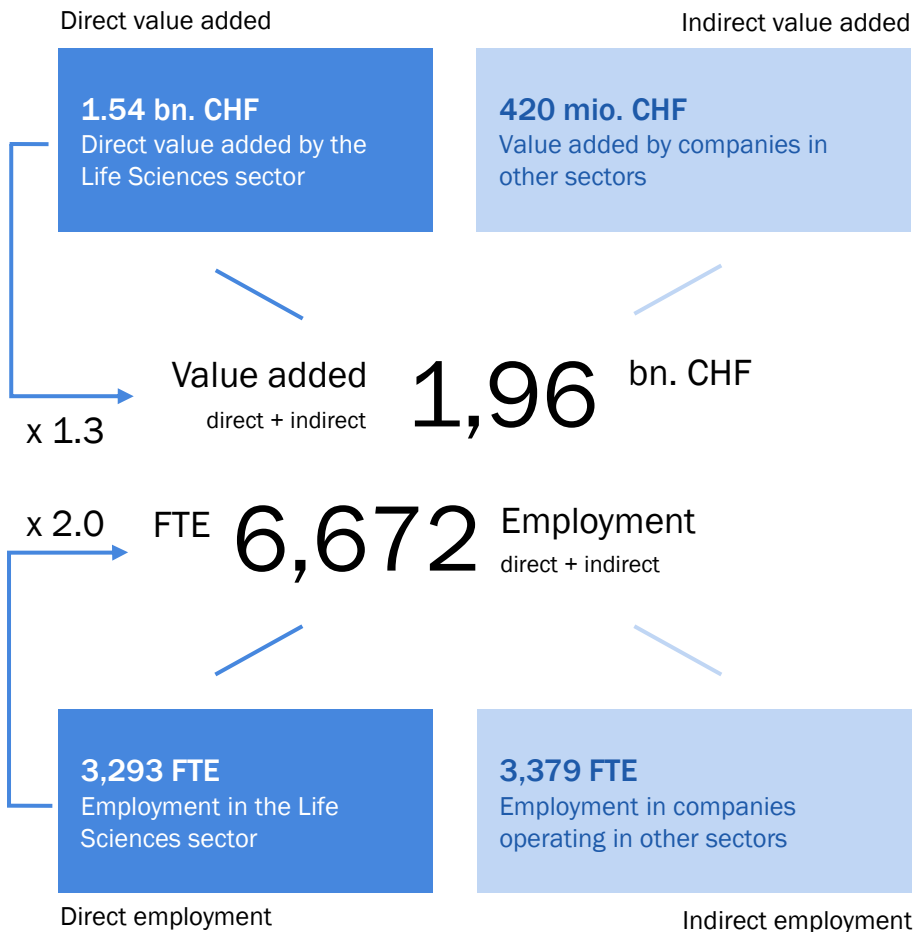
The indirect effects of value creation represent a total of 3,379 full-time jobs and wages worth CHF 301 million in other industries in the canton of Fribourg.

A total of 6,672 jobs and CHF 639 million in wages in the canton of Fribourg are directly and indirectly linked to the activities of the Life Sciences sector. This corresponds to 5.3% of employment in the canton and 5.4% of the total payroll.

As a result, for every job created in the Life Sciences sector, an additional full-time position is created in the Fribourg economy.



Economic footprint



Economic footprint of the Life Sciences sector on Fribourg's economy

Note: numbers refer to the year 2023, numbers for value added rounded.

Source: BAK Economics

"The BCC offers a very dynamic response to the needs of businesses".

Jean-Nicolas Aebischer has been Director of the Fribourg School of Engineering and Architecture since 2012.

Previously, he was Chemistry teacher physical and responsible from the chemical industry to HEIA-FR



With its specialised infrastructure, how can the HEIA-FR support local industry, particularly in the Life Sciences sector?

With its six study programmes, ten applied research institutes and four competence centres, the HEIA-FR offers a diverse range of training courses and research and innovation partnerships, reflecting the spectrum of the local economy.

Thanks to the canton's positive and ongoing commitment, the HEIA-FR has an excellent applied research infrastructure.

This is particularly true in the fields of chemistry and Life Sciences. The industrial chemistry laboratories and those of the Biofactory Competence Center (BCC) enable the development of chemical, pharmaceutical, biotechnological and biopharmaceutical processes. These laboratories are specifically designed to support start-ups and SMEs seeking to transfer their processes from laboratory scale to pilot-scale production (up to a hundred kilograms of product).

What are the different forms of collaboration between HEIA-FR and the local Life Sciences sector?

As with all courses of study, institutes and centres of excellence, business partners can collaborate on student projects, on research projects financed by funding agencies such as Innosuisse, or on direct research and development mandates. As part of collaborative projects with HEIA-FR, companies benefit from state-of-the-art equipment and facilities. For reasons of complexity and safety, the processes and syntheses are carried out by qualified staff from the university. HEIA-FR also has an aR&D² department, which provides support in dealing with intellectual property and confidentiality issues. The aim is to strengthen the innovative capacity of the socio-economic fabric, and this is one of the core missions of the HEIA-FR.

What are the HEIA-FR's contributions in the field of "bioprocess engineering"?

With its BCC Competence Centre, HEIA-FR has the infrastructure and skills to develop biotechnological and biopharmaceutical processes. Apart from research collaborations and development collaborations, the BCC offers a very dynamic response to the needs of

² Applied research and development

biopharmaceutical companies by providing tailor-made training for production staff.

All engineering disciplines use artificial intelligence or, better still, augmented intelligence methods. The BCC also benefits from the many opportunities for collaboration with the iCoSys institute for complex systems. This opens up new opportunities for process control (Process Analytical Techniques, PAT) and predictive maintenance of installations.

[What can HEIA-FR do to facilitate technology transfer and encourage entrepreneurship?](#)

The HEIA-FR has an organisational structure, i.e. a department responsible for the management of the university's research and development activities.

The Applied Research and Development department, headed by one of the deputy directors and supported by an aR&D department, provides professional support for collaborations with established companies and start-ups. This structure is essential, because scientific and technological expertise is a necessary but not sufficient condition when it comes to converting inventions into innovations. Collaboration contracts that frame and clarify the rights and obligations of each party are an essential basis for reconciling the interests and constraints of each party.

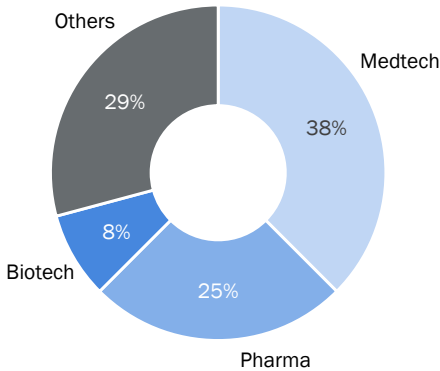


Part V

Quality of location in the
canton of Fribourg

Fribourg companies serve foreign markets

A survey of Fribourg's Life Sciences companies has been carried out to highlight the nature of their activities, the aspects linked to their continued existence and the attractiveness of the canton, as well as the trends and challenges affecting their commercial activity.



The survey sample mirrors the canton's industrial structure in the Life Sciences sector. It represents more than 60% of employment in this industry. A total of 24 companies took part in the survey.

Industrial structure of the sample, 2024
percentage of total
Source: BAK Economics

On average, 1 in 12 jobs is dedicated to R&D activities.



Almost two-thirds of companies are active on international markets. The remaining companies serve the domestic market.

In total, the companies that took part in the survey have created more than 300 new jobs over the last 5 years.



Almost 70% of companies produce finished goods. The remainder act as suppliers in various value chains.

8 out of 10 medtech companies are both active on international markets and produce finished goods.

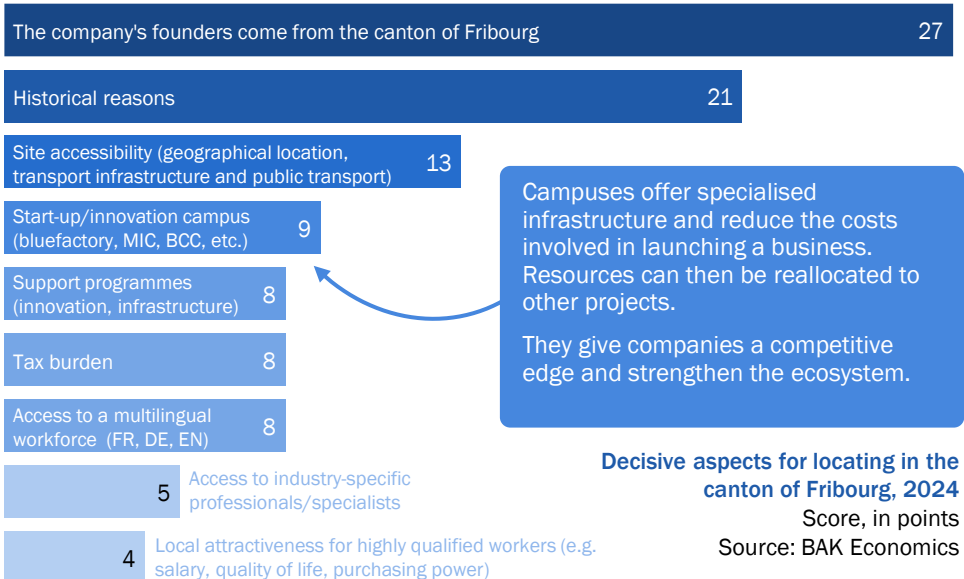


Aspects of establishment strongly linked to the canton of Fribourg

The two main factors in company establishment are the origin of the founders and historical reasons linked to the company. Site accessibility, the services offered by technology campuses, support programmes and the tax burden are also determining factors.

Various workforce-related aspects are important in attracting new companies, such as access to Life Sciences specialists and language skills. In order to attract these profiles, the canton of Fribourg must be sufficiently attractive, particularly in terms of quality of life and purchasing power.

Following their studies or employment in an academic institution, some entrepreneurs stay in the canton.



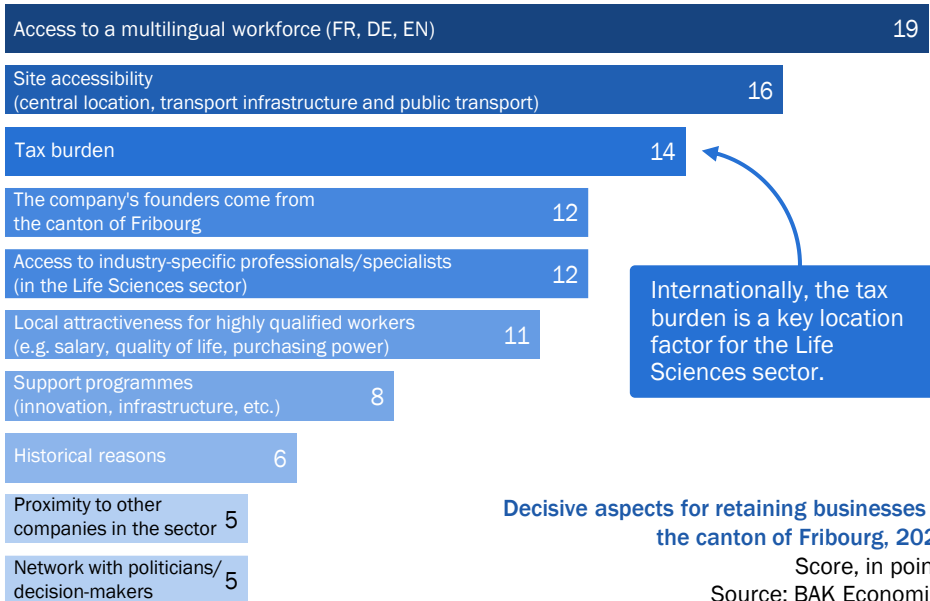
“ CSL Vifor (formerly Vifor Pharma) has been based in Villars-sur-Glâne since 1983. This long-standing foothold has enabled us to develop a significant presence in the region and to take advantage of this strategic location to attract talent from all over Switzerland, thereby driving our growth.

Dr. Jörg Storre, General Manager Switzerland, CSL Vifor

Availability of a multilingual workforce: the main criterion for retaining businesses

For companies operating at national and international level, language skills are crucial. Located on the language border and close to international centres, the canton of Fribourg naturally favours access to a multilingual workforce. Access to specialists in Life Sciences and advantageous conditions for highly qualified employees are also key factors.

The development of an efficient transport and public transport infrastructure also has a positive impact, in particular by increasing attractiveness to employees and improving proximity to other players in the sector. A favourable tax burden is also cited as a factor in keeping companies in the canton.



“ Thanks to Grifols' global distribution network, multilingual environment and easy access to Guin, our company has been able to generate continued strong growth over the last 10 years, and our workforce has doubled in that time.

Martin Spicher, Managing Director, Medion Grifols Diagnostics

Companies face a number of challenges

Recruiting qualified staff, pressure on prices and regulations are the main challenges for the activities of Life Sciences companies.

As Fribourg companies are highly active on international markets, external relations are at the heart of the challenges they face. These include the strong Swiss franc, the emergence of new competitors and recent developments between Switzerland and the EU, particularly with regard to the Bilateral III agreements, MRAs, research programmes and the recognition of diplomas

Conversely, climate change, market saturation and the interest rate environment are having only a minor impact on business.



Main challenges for business activities, 2024

Score, maximum 100 points

Source: BAK Economics



“ For our Consumer Health business, it is important that the canton of Fribourg works with the federal government to create an environment in which the regulatory and economic framework conditions improve.

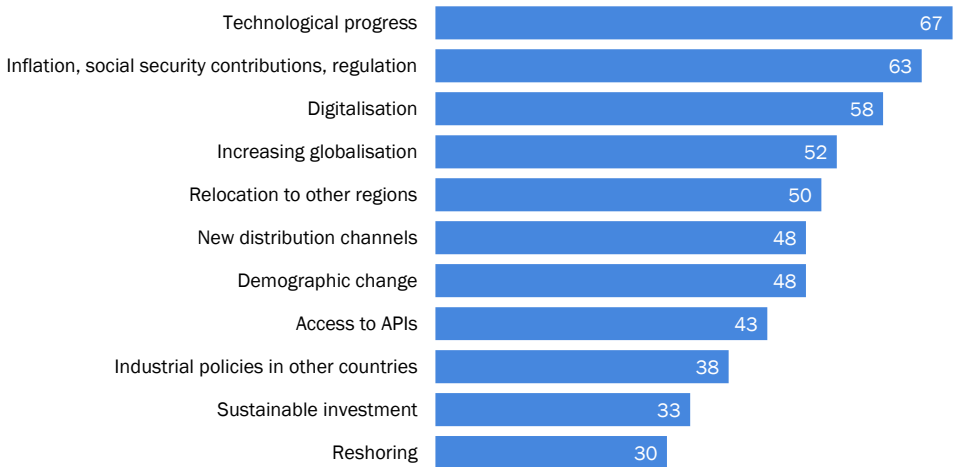
Stefan Wälti, CEO, Verfora

Technological progress has the greatest impact on commercial activity

Trends such as technological progress, labour market regulation and digitalisation have a particular impact on business activities. For those operating internationally, increasing globalisation and relocation to other regions are also relevant to business development.

On the other hand, reshoring - i.e. relocating activity to the original geographical area - sustainable investment or industrial policy in other countries has little impact on the future success of companies' activities.

Access to a skilled workforce can help address these trends by facilitating the adoption of new technologies, particularly digital technologies, and by ensuring regulatory compliance.



Trends affecting business activities, 2024

Score, maximum 100 points

Source: BAK Economics

Availability of highly skilled labour

Recruiting qualified staff is not only the biggest challenge for companies, it is also a way of coping with the main trends affecting the industry: technological progress, digitalisation and ever more numerous and a growing number of complex regulations.



The canton of Fribourg is well placed to meet companies' demanding requirements in terms of language skills. As a bilingual canton located close to international centres, Fribourg enjoys a large pool of **multilingual** people.



Being geographically close to several **universities** and **research institutes** - EPFL, Unifr, HEIA-FR, Institut Adolphe Merkle, UNIL, UNIBE, UNINE, CSEM - Fribourg is at the heart of a region where highly skilled people are concentrated, both in the Life Sciences and in other complementary fields.

The availability of this interdisciplinary workforce makes it possible to understand the trends affecting companies' business models, such as technological progress and digitisation.



Attractiveness is a key factor in attracting new talent. Compared with neighbouring cantons and at international level, the canton of Fribourg has an advantageous tax regime for high earners (CHF 100,000). At Swiss level, however, the canton is only in the bottom quarter of the rankings.

The average rent (per m² for a 4-room flat) is almost 11% lower in the canton of Fribourg than in the rest of Switzerland.

The canton of Fribourg also has a large amount of unbuilt residential areas. In proportion to its population and the number of jobs, the number of m² of unbuilt building areas is higher than the Swiss average and that of Western Switzerland.

The canton of Fribourg offers life sciences companies conditions that are conducive to the recruitment of highly qualified personnel, thanks to the promotion of bilingualism, its geographical location close to academic institutions and advantageous real estate conditions.



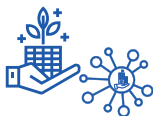
The **tax burden** on companies and highly qualified employees is also seen as an important factor in attracting and retaining businesses. For companies, the canton of Fribourg has an advantageous tax burden compared with the average for Western Switzerland and internationally. However, at Swiss level, Fribourg is only in the mid-range, behind cantons such as Lucerne, Neuchâtel and Basel-Stadt.

Improving the tax environment would encourage Life Sciences companies – particularly in the wholesale of pharmaceutical products – to set up, thereby strengthening the ecosystem. A favourable tax burden would also help to offset pressure on prices and the impact of the strong Swiss franc, enabling them to be internationally competitive.



According to the survey, **the accessibility** of Fribourg is a key factor for companies in setting up and maintaining their operations. The canton of Fribourg has a central geographical location and is located on a major national road and rail routes. The economic centres of Berne and Vaud - and the Life Sciences players based there - are easily accessible.

The survey also reveals that efforts can be made at regional level to anticipate the effects of population and business growth on the existing road infrastructure.



The numerous **technology campuses** and various **support programmes** help to attract and retain Life Sciences companies. Together, they are the third most important factor (see page 49) and considerably enhance the quality of Fribourg's Life Sciences ecosystem.

Marly Innovation Center



“ The Marly Innovation Center offers the perfect environment for developing a business, particularly in the Life Sciences sector. The technology campus offers almost 87,000 m² of premises, including 7,000 m² of secure laboratories. It currently hosts more than 170 companies, including promising scale-up companies such as Seprify and InnoMedica.

Mathieu Piller, Managing director, Marly Innovation Center

Biofactory Competence Center



“ HEIA-FR's Biofactory Competence Center offers theoretical and practical training for HEIA-FR chemical engineering students and professionals at regional and international level. Thanks to its specialised infrastructure, it trains highly qualified personnel. Among other things, the BCC offers operator training in the pharmaceutical industry, which is unique in Switzerland, and also develops new production processes in the biopharmaceutical field in collaboration with industrial or academic partners.

Dr. Carmen Jungo Rhême, Director, Biofactory Competence Center (BCC)

bluefactory



“ Thanks to its strategic location and the quality of its infrastructure, the bluefactory innovation district has attracted a multidisciplinary ecosystem with high added value. Today, it acts as a catalyst, particularly in the key field of Life Sciences. Its companies and centres of expertise are developing innovations here, with applications that benefit the whole canton of Fribourg.

Jacques Boschung, Chairman, BFF SA



Synthesis

**The economic footprint of
the Life Sciences sector in
the canton of Fribourg**

Synthesis

The Life Sciences sector in the canton of Fribourg has grown significantly over the last ten years and has performed remarkably well in terms of employment productivity, outperforming all other sectors in the canton. Between 2013 and 2023, around 850 jobs were created, and currently 8% of the canton's value added comes from the activities of Life Sciences companies.

There are two main factors explaining this situation: the sophistication of the ecosystem and the quality of the location. Firstly, the quality of the location helps to attract and retain companies, strengthening the ecosystem and increasing interaction between the various players. As a result, performance increases and new competitive advantages are created.

This performance benefits not only the industry itself, but also the entire economy and population of the canton of Fribourg. For every CHF 100 of value added generated by Fribourg's Life Sciences sector, an additional CHF 27 is created in other regional industries, along with 3,379 full-time jobs.

The various advantages and strengths of the canton of Fribourg give companies the opportunity to meet the challenges and trends affecting business activity.

Advantages of the canton of Fribourg

- 1 Multilingual, highly skilled workforce**
The availability of multilingual staff gives companies operating internationally and those with commercial activities on both sides of the language border a competitive advantage. In addition, many universities and applied universities are located in or near the canton. They increase the availability of highly skilled labour.
- 2 Accessibility**
The accessibility of the canton of Fribourg extends the possibilities for collaboration with Life Sciences players such as universities, hospitals and suppliers located in neighbouring cantons.
- 3 Cost of living**
With average rents below the national average and large reserves of unbuilt residential areas, the canton of Fribourg has a number of advantages.
- 4 Technology campuses and support programmes**
They have greatly contributed to the establishment and retaining of numerous companies and start-ups, strengthening Fribourg's Life Sciences ecosystem.

Ways to improve the quality of localisation

Business activities are influenced by numerous challenges and emerging trends. To ensure that Fribourg's Life Sciences companies can continue to perform and develop in the future, and that Fribourg's economy and population as a whole can benefit from their impact, cantonal advantages must be defended and, given the significant economic impact of the Life Sciences sector, improvements are sought by various players in the industry.

1

Taxation

An improvement in taxation, both for highly-qualified personnel and for companies, would enhance the canton's attractiveness in two ways: firstly, by attracting new companies with high value-added activities, particularly commercial and R&D activities; secondly, by attracting highly qualified staff, making it easier for companies to recruit.

2

Accessibility and land policy

Although accessibility and land policies are advantages of the canton of Fribourg, it is important to strengthen the current rail and road networks and manage building areas wisely in order to anticipate economic and demographic growth in the canton's various regions. In this way, the canton will make itself more attractive to businesses and highly skilled workers.

3

Technology campuses and interdisciplinarity

The survey revealed that the technology campuses were a significant location factor. While they are already an advantage for the canton of Fribourg, strengthening them would further promote the development of the ecosystem and, consequently, the competitiveness of companies. They also help to promote interdisciplinarity, which is a crucial aspect of coping with the new trends affecting the activities of Life Sciences companies, such as technological progress, digitalisation and cybersecurity.

The Fribourg ecosystem within the Western Switzerland Life Sciences cluster

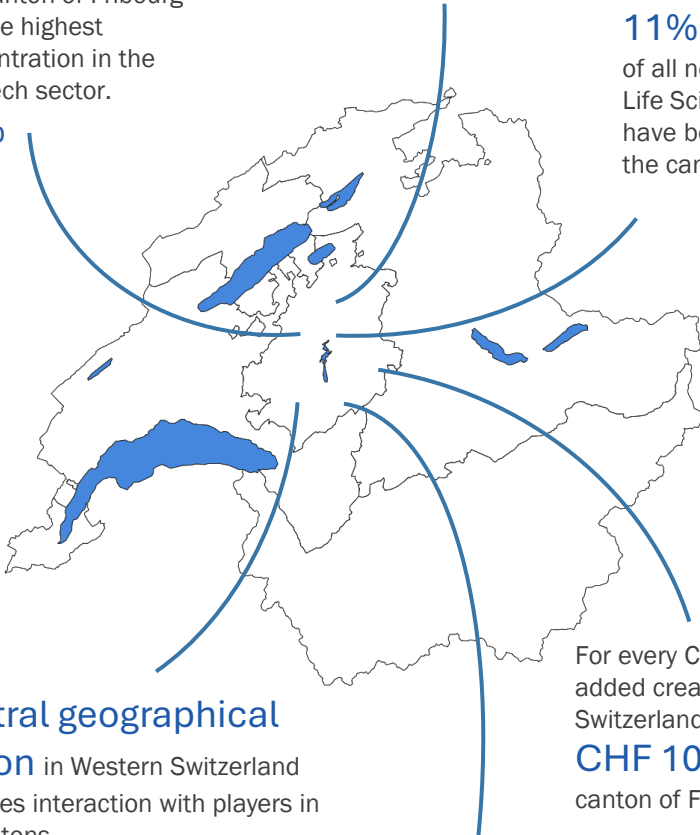
Many universities and applied universities are located in or near the canton of Fribourg, making it easy to recruit **highly qualified workers.**

The canton of Fribourg has the highest concentration in the medtech sector.

41%

11%

of all new jobs in the Life Sciences sector have been created in the canton of Fribourg.



Its **central geographical location** in Western Switzerland encourages interaction with players in other cantons.

For every CHF 100 of value added created in Western Switzerland in Life Sciences, **CHF 10** comes from the canton of Fribourg.

Situated on the language border the canton of Fribourg has a large pool of **multilingual** workers.

Economic footprint of the Life Sciences sector in the canton of Fribourg

Impact on the canton's economy

	Direct	In other industries	Total
Gross value added (in millions of CHF)	1,537	420	1,957
Employment (in FTE)	3,293	3,379	6,672
Employee income (in millions of CHF)	338	301	639

Impact on the cantonal economy

Share of total economy	Direct	In other industries	Total
Gross value added	8.2%	2.3%	10.5%
Jobs	2.6%	2.7%	5.3%
Employee income	2.9%	2.6%	5.4%

Notes: Nominal gross value added ;
full-time equivalent jobs
Data for 2023; discrepancies may arise due to rounding.
Source: BAK Economics



GRIP (www.grip-pharma.ch) is a trade association founded on September 24, 1987 following the merger of ASPE (Association des firmes représentant en Suisse des spécialités pharmaceutiques à marques déposées) and AFSSPh (Association des fabricants suisses de spécialités pharmaceutiques). Its members are all active in Life Sciences, whether they are manufacturers, distributors of therapeutic products or providers of services such as consulting, training, regulatory affairs, GxP auditors, etc. It is made up of companies in French-speaking Switzerland of varying sizes, from sole proprietorships and start-ups to multinationals.

GRIP is an essential local partner for Life Sciences companies in French-speaking Switzerland, and is the leading platform for defending the specific interests of Life Sciences companies in French-speaking Switzerland, providing information and sharing experience.

Its mission:

- Defend the interests of Life Sciences companies in French-speaking Switzerland by taking part in consultations with the authorities and representing its members in dealings with cantonal and federal bodies,
- Increasing the visibility of its members,,
- Organising information and experience-sharing meetings,
- To provide a platform for exchanges between members, partners and authorities,
- Promoting training in Life Sciences and facilitating access to qualified resources.

Throughout the year, GRIP organises working groups in various areas such as quality assurance, regulatory affairs and political affairs. It also offers various services in the fields of training, consultancy and as a platform for exchange. Lastly, it organises annual conferences to ensure the continuing education of its members on topics of general interest to the Life Sciences sector.



ETAT DE FRIBOURG
STAAT FREIBURG
STATE OF FRIBOURG

Promotion économique PromFR
Wirtschaftsförderung WIF
Development Agency FDA

FRIBOURG, THE PLACE TO GROW!

Fribourg Development Agency (FDA)

The FDA is the main point of contact for all companies in the canton. 70% of its activities are geared towards the canton's key players (endogenous promotion, including regional policy). The aim is to help companies and regions develop, but also to encourage the creation of new innovative companies in the canton, particularly in the bioeconomy and Industry 4.0 fields. The FDA is also responsible for implementing the New Regional Policy (NPR), for example by supporting collaborative projects between businesses and universities. However, external promotion has not been put on hold. It accounts for 30% of the FDA's activities, as the establishment of new companies remains an important vector of growth and renewal for the canton.

The FDA was created in 1971 and is part of the Direction de l'économie, de l'emploi et de la formation professionnelle (DEEF).

www.promfr.ch



BAK Economics AG (BAK) is an independent economic research and consultancy institute. Founded as a spin-off from the University of Basel, BAK has been dedicated to scientifically based empirical analysis and its practical implementation since 1980.

In its research work, BAK attaches particular importance to economic analyses of sectors of the Swiss economy, for which it has developed a wide range of analysis and modelling tools that also include analyses of the economic footprint.

In addition to traditional economic research, BAK offers a range of consulting and support services to companies. The well-founded infrastructure of analyses and models serves as a starting point for in-depth analyses, taking into account the specific questions posed by businesses and enabling solutions to be developed in the areas of planning and strategy.

BAK has sites in Basel and Lugano.