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WHITE PAPER

Securing Switzerland's Leadership in the Life Sciences

A Strategy for an Era of Geopolitical and Technological Turbulence

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1. Introduction

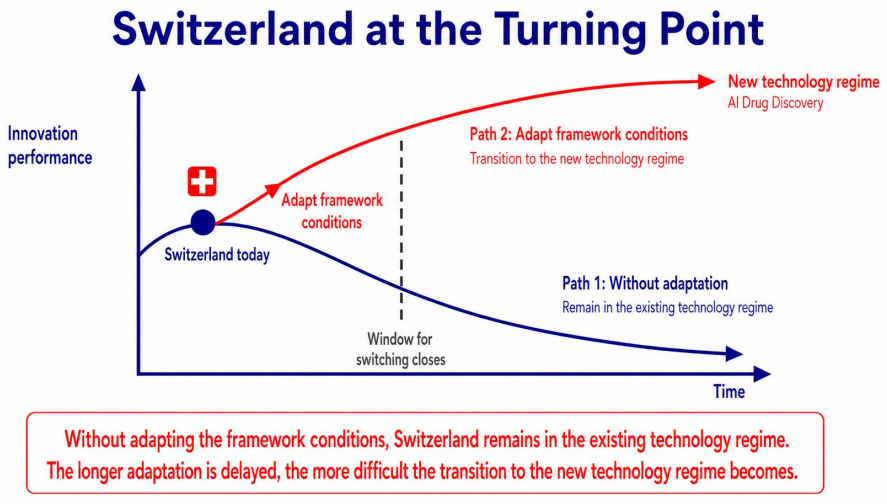
Switzerland is one of the world's leading locations for pharmaceutical research, innovation, and production. This sectoral strength is embedded in a broader innovation environment that also performs strongly. Switzerland ranked first in the 2025 Global Innovation Index and third in the 2026 IMD World Competitiveness Ranking (WIPO, 2025; IMD, 2026). However, both the pharmaceutical industry's position and Switzerland's broader innovation performance reflect investments and policy decisions made over several decades. As geopolitical fragmentation, intensifying competition for investment, and rapid technological change reshape the global economy, the policies and institutions that supported this success may no longer be sufficient.

Both shifts are particularly consequential for Switzerland's *life sciences industry*. In this paper, we use the term primarily to refer to the research-intensive pharmaceutical and biotechnology sectors and, where relevant, their increasing convergence with medical technology and digital health. Geopolitical and technological change affect these activities through different channels. Geopolitical fragmentation increases the importance of market access and predictable regulation, whereas technological change increases the importance of data, specialized talent, and computational capabilities. The United States is strengthening its position as a leading center of innovation and using the size of its market to attract pharmaceutical production and R&D. China and other Asian economies are also rapidly expanding their scientific and technological capabilities. At the same time, advances in artificial intelligence (AI), genomics, advanced manufacturing, and the collection, linkage, and analysis of health data are reshaping the industry.

The technological dimension and possible impact of this challenge can be understood through the theory of *technological leapfrogging* developed by Elhanan Brezis, Paul Krugman, a Nobel laureate in economics, and Daniel Tsiddon (1993). The theory suggests that established leaders may be slow to adopt a major new technology because skills, capital, and policies remain tied to the existing technological regime. Latecomers have less accumulated experience to lose and may therefore adopt the new technology earlier, allowing them to overtake established leaders if the new technology proves sufficiently productive.

Applied to AI and the digital transformation of the life sciences, this theory suggests that Switzerland's established strengths do not guarantee future leadership. Those strengths must be renewed as technologies change, and policies designed for earlier technological conditions may need to evolve.

Figure 1. Switzerland's relative innovation performance under alternative responses to technological and geopolitical change



The upper path illustrates how timely adaptation of framework conditions to technological and geopolitical change could help Switzerland sustain its position as a leading innovation location. The lower path illustrates a potential relative loss of innovation performance if Switzerland fails to adapt. The dashed line indicates that at some point delayed action may make the transition increasingly difficult.

Source: Authors' illustration.

The economic implications extend beyond the relative innovation performance shown in Figure 1. A delayed response could gradually reduce investment, domestic value added, highly qualified employment, and innovation activity in Switzerland as firms expand R&D and production in more attractive locations. The extent of these effects will depend partly on how effectively Switzerland adapts its framework conditions to the changing technological and geopolitical environment.

The need for action illustrated in Figure 1 does not imply that the government should pursue a "strategic industrial policy" based on subsidies, state-led investment, or tax incentives for individual companies. However, *government action is justified where public goods, network effects, or coordination failures lead to insufficient private investment*. It is also essential where existing regulations in this highly regulated industry are becoming suboptimal or even counterproductive, given the current geopolitical and technological changes. Measures should address these failures, remain neutral among individual firms, and be sector-specific only where the underlying problem is itself sector-specific. In addition, sustaining a highly competitive environment remains key.

Against this background, *the paper proposes six mutually reinforcing priorities for Switzerland*. These comprise (1) a nationwide, federated biomedical data infrastructure, (2) stronger AI capabilities, (3) a more effective startup and scale-up ecosystem, (4) continued access to specialized talent, (5) sustained broad-based basic research, and (6) an adjustment of the pharmaceutical regulatory framework particularly regarding product authorization, pricing and reimbursement. In addition, maintaining intellectual property protection and access to export markets is a necessity. In the first three (health-data infrastructure, AI capabilities, and the startup and scale-up ecosystem) Switzerland is (falling) behind relative to other countries; they require immediate strengthening. In talent and basic research, Switzerland starts from a strong position, but risks to lose it if appreciation and investment weakens. Its regulatory framework is also generally strong, although product approval, pharmaceutical pricing and reimbursement require targeted reform.

This White Paper grew out of discussions initiated at the *World Economic Forum in Davos* in January 2026, including the panel "Global Pharmaceutical Value Chain in the New World Order" *organized by the Canton of Basel-Stadt*. Drafts were subsequently discussed at a roundtable at the University of Basel and in the Federal Working Group "Lifesciences-Standort" in May 2026. These exchanges helped refine the paper. Its analysis and recommendations, however, are based primarily on *economic principles and the authors' own research* on innovation, international competition, and the location of pharmaceutical R&D. The paper complements recent stakeholder proposals by the Life Sciences Cluster Basel, Interpharma, and scienceindustries. It develops an *independent economic assessment* that *jointly addresses geopolitical and technological change*.

The remainder of the paper is organized as follows. Section 2 describes the international position of the Swiss pharmaceutical industry. Sections 3 and 4 examine the implications of geopolitical and technological change, respectively. Section 5 proposes six key priorities that are likely to be crucial to sustaining Switzerland's leadership in the life sciences industry. Section 6 explains how to implement this strategy, and Section 7 concludes.

2. The Swiss Pharmaceutical Industry in the Global Economy

The Swiss pharmaceutical industry is one of the most productive and research-intensive sectors of the Swiss economy. Labor productivity is approximately five times the economy-wide average. In 2022, the industry directly employed around 50,000 people (FTE) in Switzerland and generated about 6% of Swiss GDP (Interpharma/BAK Economics, 2024). Domestic pharmaceutical R&D expenditure reached approximately CHF 9 billion in 2024 (Interpharma, 2026).

The industry is heavily concentrated in the Basel region, whose employment, income, and tax revenues depend substantially on its performance. Its economic footprint, however, extends throughout Switzerland through employees living in other cantons, supplier relationships across the country, research collaborations with ETH Zurich, EPFL, and university hospitals, and the redistribution of tax revenues through fiscal equalization ("Finanzausgleich") among cantons. Its economic significance is therefore both regional and national.

The scale of the Swiss pharmaceutical industry depends heavily on exports. In 2024, pharmaceutical exports amounted to CHF 114.5 billion and represented 40.5% of all Swiss goods exports. The European Union accounted for 46% of these exports and the United States for 28%, making the United States the largest individual destination. With 5% of Swiss pharmaceutical production, the domestic market is small by comparison (Interpharma, 2026).

Leading Swiss pharmaceutical companies maintain major production sites abroad. Their R&D footprint is also highly international. More than half of R&D activities take place outside Switzerland where the two largest Swiss multinational companies, Novartis and Roche, maintain major research centers in the leading R&D hubs (Bentele and Weder, 2024). This international footprint gives firms considerable flexibility to allocate new investment across locations, increasing the importance of attractive Swiss framework conditions.

Among the locations competing for pharmaceutical investment, the United States stands out as the world's largest prescription-drug market and a central source of revenues for Swiss pharmaceutical companies. Its scale and comparatively high list prices strongly influence global investment decisions (EFPIA, 2026; PMPRB, 2025). Changes in U.S. trade, industrial, and pharmaceutical pricing policy therefore have major implications for the Swiss pharmaceutical industry and, given its economic weight, for the Swiss economy more broadly.

3. Geopolitical Change and Its Implications for the Swiss Pharmaceutical Industry

Beginning on 31 July 2026, the United States introduced Section 232 tariffs on patented pharmaceuticals and associated pharmaceutical ingredients, with the measure taking effect in stages across companies. Generic medicines and their associated ingredients are currently excluded. For products from Switzerland, the combined MFN and Section 232 tariff is capped at 15%, with product- and company-specific exemptions allowing lower or zero rates. Negotiations on a legally binding trade agreement between Switzerland and the United States remain ongoing (SECO, 2026; White House, 2026a). The design of the tariff regime strengthens incentives for pharmaceutical companies to locate additional production and R&D in the United States.

Under the U.S. most-favored-nation pricing framework, including the GENEROUS Model, Switzerland is included among the countries used to determine benchmark prices. The effect of Swiss prices depends on the methodology, particularly the treatment of confidential rebates and differences in national income. If Swiss prices influence U.S. benchmarks, domestic pricing decisions could affect pharmaceutical revenues beyond the Swiss market. This cross-border pricing channel is distinct from tariffs but likewise increases Swiss pharmaceutical companies' exposure to U.S. policy decisions (CMS, 2026; White House, 2026b). Despite this exposure, Switzerland has limited ability to influence U.S. policy, and the commercial importance of the U.S. market narrows the range of viable responses.

The United States is not alone in seeking to attract pharmaceutical production. Countries worldwide are expanding domestic production capacity for medicines to increase resilience against foreign shocks. By directing demand toward domestic suppliers, this shift can reduce international specialization and limit the export volumes on which producers in small markets such as Switzerland depend to achieve economies of scale. At the same time, competition in pharmaceutical innovation is intensifying. Over the past decade, China has rapidly expanded its clinical-trial activity and strengthened its drug-development capabilities (Plackett, 2025; Barwick et al., 2026).

Changes in trade policy and pharmaceutical pricing do not eliminate comparative advantage. They can, however, change the relative attractiveness of locations and thereby reshape international specialization. As a small economy, Switzerland cannot compete with the United States or China on scale, neither in terms of domestic demand nor in the breadth of its pharmaceutical production base. With respect to their activities in Switzerland, companies should (and will) therefore pursue an asymmetric, specialization-based strategy that concentrates on areas in which scientific excellence, technological complexity, and accumulated know-how create capabilities and products that are difficult to substitute (Rutzer and Weder, 2021). They will build on their established strengths in R&D, early-stage development, technologically complex manufacturing, and selected critical ingredients. In addition, they should place greater emphasis on developing scientific and innovation capabilities in emerging technologies. As large markets adopt policies

designed to attract pharmaceutical production, standardized and easily replicable high-volume activities may increasingly be drawn toward them, reinforcing the case for this strategic focus.

Switzerland's ability to retain high-value pharmaceutical activities will depend increasingly on how effectively it adapts its scientific and industrial strengths to emerging technologies. The government has to take into account these forces affecting companies when designing and adjusting its policies. The next section examines how technological change is reshaping the capabilities that underpin Switzerland's competitive position.

4. Technological Change and New Sources of Competitive Advantage

The life sciences are being transformed by advances in genomics, precision medicine, cell and gene therapies, advanced manufacturing, and artificial intelligence (AI). AI, in particular, is increasingly used in pharmaceutical discovery, clinical development, post-market surveillance, and manufacturing. Some AI-discovered drug candidates have entered phase 2 clinical trials, but evidence on their effects on late-stage clinical success and commercial returns remains limited (Pun et al., 2023; Zhang et al., 2025; Xu et al., 2025).

These advances are blurring the boundaries between traditional pharmaceuticals, medical technology, and digital health. In some therapeutic areas, for example, medicines are increasingly combined with digital tools that support patient monitoring, guide dosing, and help patients follow their prescribed treatment plans. Switzerland's established pharmaceutical and medtech clusters create opportunities to benefit from this convergence. Realizing these opportunities requires predictable and coordinated regulatory pathways across medicinal-product, medical-device, and software components.

Technological convergence also raises questions about the treatment of AI-assisted inventions and the use and sharing of health and biomedical data for research and innovation. Clear, internationally compatible rules can reduce legal uncertainty for firms and researchers working across jurisdictions.

Technological change is reshaping the capabilities in which Switzerland needs to remain a leading location for life sciences innovation. Firms must develop new scientific, technological, and organizational expertise. Mihet et al. (2026) illustrate this point by showing that the value of raw data depends on firms' AI capabilities to process them effectively.

Beyond the firm, innovation increasingly depends on complementary resources and institutions that individual firms cannot provide alone, including high-quality data, computational infrastructure, common standards, specialized talent, research partnerships, and foundational research. This is where the Swiss government has to become more active to correct market failures and suboptimal regulations.

5. Policy Priorities for a Swiss Life Sciences Strategy

Geopolitical and technological change create distinct but interconnected challenges for Switzerland. Geopolitical shifts can restrict market access and redirect R&D and production. Technological change can weaken established advantages if firms and the broader innovation ecosystem fail to develop new capabilities. The following six priorities translate this analysis into a set of targeted policy actions designed to strengthen Switzerland as a location for innovative life sciences activities. *These measures should remain neutral among individual firms, be subject to transparent evaluation and, where appropriate, include sunset provisions* (i.e., automatically expire after a certain date).

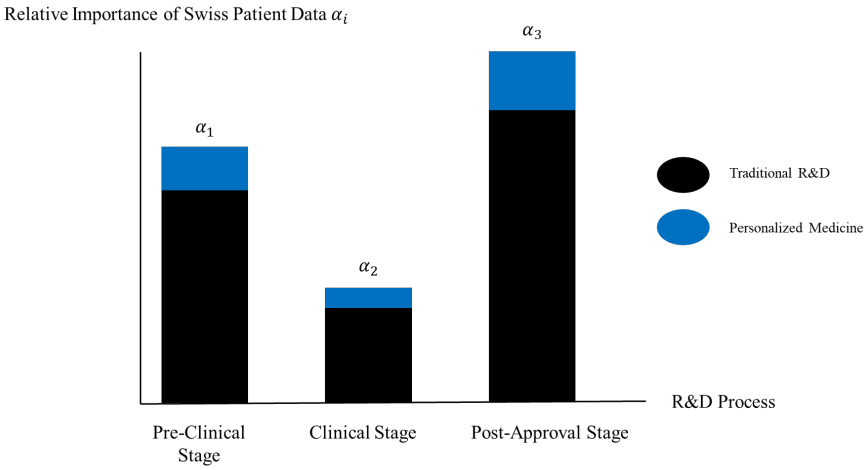
5.1. Build a National Biomedical Data Infrastructure

High-quality, interoperable, and accessible biomedical data, including electronic health records, clinical data, and genomic data, are increasingly important inputs into modern life sciences innovation. Switzerland has many of the underlying assets needed to generate and link such data, including universal health coverage, university hospitals, and biobanks, but health data remain fragmented, inconsistently governed, and often unavailable in formats that modern analytical methods can exploit. Building an interoperable national

health-data infrastructure requires coordination across hospitals, public authorities, researchers, and private actors. No individual actor can establish it alone.

Bentele and Weder (2024) show that access to high-quality data in Switzerland can influence pharmaceutical companies' decisions about where to locate R&D activities. Their findings point to the importance of geographical proximity between high-quality data infrastructure and R&D activities, particularly for early-stage development, clinical research, and especially the post-approval stage, where such data serve as an input to the development of new treatments (see Figure 2). We expect that this relationship will become even more important in the era of personalized medicine and integrated treatments involving products and services from both the pharmaceutical and medtech industries.

Figure 2. Geographical proximity between data and pharmaceutical R&D



Source: Bentele, Riccardo and Rolf Weder (2024), "On the Importance of Swiss Patient Data for Pharmaceutical R&D in Switzerland", WWZ Working Paper 2024/02, p. 37.

Therefore, Switzerland should take the following actions:

Mandate interoperability across electronic health records. The Swiss Electronic Patient Record (EPR) and hospital information systems should use Fast Healthcare Interoperability Resources (FHIR) exchange standards and common clinical terminologies such as ICD-11 and SNOMED CT. Interoperability is a prerequisite for using AI, genomics, and real-world evidence at national scale.

Build a national health data platform. Expand on the Swiss Personalized Health Network (SPHN) to provide secure, federated access to linked patient data for academic researchers and research-oriented companies. Governance should involve the Federal Statistical Office (FSO), the Federal Office of Public Health (BAG), the cantons, hospitals, research institutions, and patient representatives, with clearly assigned operational responsibilities.

Prioritize data usability over raw data volume. Ensure annotation, standardization, and linkage across genomic, imaging, clinical, and wearable data. Clear rules are required for commercial use, federated learning, synthetic data, and meaningful patient control. Public involvement and transparency are essential to building trust in the large-scale use of health data.

The timing of these measures is critical. Building integrated health-data infrastructure takes years, and further delay risks widening Switzerland's gap with countries that already provide secure, large-scale access to health data for research, notably the United Kingdom through NHS secure data environments and Finland through Findata (NHS England, 2025; Findata, 2026). Private actors in Switzerland have sought to develop elements of such infrastructure. However, the public-good and network characteristics of interoperable systems limit what decentralized initiatives can achieve. Coordinated public action is therefore necessary

because firms may otherwise direct long-term R&D investment toward locations with better access to usable health data.

5.2. Embrace AI as a Key Innovation Driver

AI has become a basic capability for pharmaceutical R&D, alongside the biological, chemical, and clinical sciences on which the industry has long relied. For Swiss life sciences, strengthening AI capabilities is particularly important because technological leadership can help offset the disadvantages associated with Switzerland's small domestic market.

Several required inputs, including shared computing capacity, high-quality training data, benchmarks, and interoperable infrastructure, have public-good or coordination characteristics and are unlikely to be developed at sufficient scale by individual firms acting alone. Public policy should therefore focus on supporting these shared inputs, leaving firm-specific models and commercial applications to private investment.

Four actions are particularly important:

Coordinate national efforts. Establish a national AI-in-biomedicine program that brings together the Swiss National Science Foundation (SNSF), Innosuisse, the ETH Domain, cantonal universities, university hospitals, and BAG. It should support frontier AI research and translational projects with credible clinical pathways.

Broaden access to computing resources. Public support should enable academic researchers and startups to access the computing resources needed for early-stage research and development, including GPUs and cloud services. Support should focus on shared access rather than proprietary firm-specific systems.

Build shared precompetitive AI infrastructure. Develop training datasets, benchmarks, and pretrained models through public-private consortia, leaving firm-specific applications and commercialization to private competition.

Keep regulation aligned with innovation. Swissmedic should issue guidance on AI-assisted drug development and clarify how relevant international standards apply in Switzerland. It should deepen cooperation with the EMA, FDA, and ICH and adopt compatible standards where appropriate (Swissmedic, 2026).

Global competition in AI-enabled pharmaceutical R&D is intensifying. If Switzerland does not strengthen its capabilities, leading platforms and talent may move to competing clusters abroad. This makes timely implementation of the measures outlined above particularly important.

5.3. Build a Vibrant Life Sciences Startup and Scale-up Ecosystem

Startups are an important channel through which academic discoveries are translated into commercial products and scalable businesses. Switzerland's spin-off ecosystem draws on leading institutions such as ETH Zurich, EPFL, and the University of Basel, but access to growth-stage capital remains a constraint for some life sciences companies.

Long development periods, substantial regulatory risk, and a relatively small domestic investor base can make later financing rounds particularly difficult. A significant share of growth capital comes from abroad, raising questions about whether decision-making and value creation will remain in Switzerland (Startupticker.ch and SECA, 2025).

We therefore recommend the following actions:

Expand access to growth capital. Develop professionally managed, market-based co-investment vehicles from the seed stage through later growth rounds. Public participation should be on equal terms with private investors, follow transparent selection criteria, and be subject to periodic evaluation.

Mobilize institutional capital. Address practical barriers that discourage Swiss pension funds from investing in venture capital. Diversified and professionally managed vehicles could make venture-capital exposure more accessible to pension funds and thereby broaden the pool of domestic investors, without requiring them to favor Swiss companies.

Reduce regulatory friction. Expand access to timely and affordable Swissmedic guidance for startups and academic research teams, particularly for advanced therapies and products combining pharmaceuticals, medical devices, and digital technologies. This support can strengthen Switzerland as a location for translational research and early clinical development.

Make employee ownership easier for startups. Employee stock options and share plans can help young firms conserve cash, recruit and retain specialized talent, and align employees with long-term company growth. Switzerland should simplify and harmonize the tax and valuation rules for employee participation across cantons to provide greater certainty for startups and employees, without creating firm-specific tax privileges.

A strong domestic pipeline of startups and scale-ups can help translate Swiss research into commercial products and create new sources of employment and value. By broadening the industry's corporate base, such a pipeline can also make the life sciences cluster more resilient and less dependent on a small number of large established firms.

5.4. Secure Life Sciences Talent

Switzerland's life sciences competitiveness depends not only on its established high-skilled workforce, but increasingly on its ability to attract and retain scientists and other highly skilled specialists with expertise spanning biology, medicine, data science, AI, and advanced manufacturing. Global competition for these talents is intense.

Competitive salaries and quality of life strengthen Switzerland's appeal, but high living costs and complex immigration procedures for specialists from outside the EU and EFTA can hinder recruitment and retention. Stable relations with the EU and participation in European research programs are also important for access to international research networks and talents. As shown in Niggli et al., (2020), cross-border commuters contribute substantially to inventions developed by Swiss companies.

Because Switzerland cannot develop all the required new skills domestically at sufficient speed and scale, it must combine international recruitment and cross-border mobility with the development of a stronger domestic talent pipeline.

The following measures are particularly important:

Secure Switzerland's continued full association with Horizon Europe. Stable relations with the EU are essential for maintaining access to the program. The importance of this access is supported by evidence from Filimonovic et al. (2023), who show that Horizon 2020 played a particularly important role in Swiss-European scientific collaboration, especially in the natural sciences, engineering, and the life sciences.

Improve cross-border transport links and administrative coordination. Facilitate access for highly qualified commuters, particularly in the Basel region (Weder, 2024).

Streamline work-permit procedures. Make permit decisions and their duration more predictable for highly qualified specialists from outside the EU and EFTA and for the organizations that employ them.

Support training in emerging life sciences technologies. The Confederation should enable the ETH community, and the cantons should enable their universities, to expand master's and doctoral programs that build capabilities for emerging life sciences technologies and to adapt curricula as technological needs evolve.

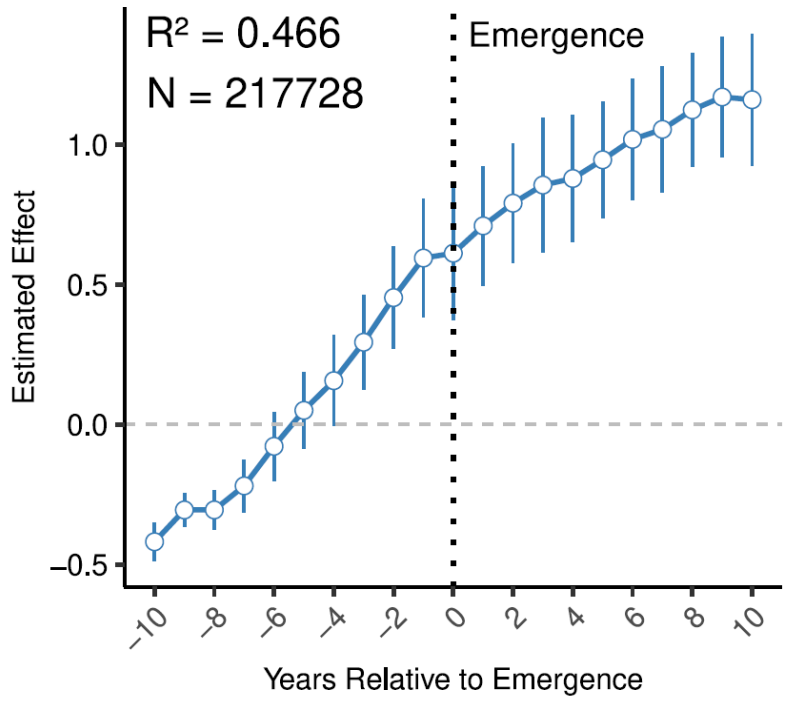
Expand opportunities for reskilling existing professionals. Support programs that help life sciences professionals develop the capabilities required as technologies evolve, including computational and AI-related skills. Programs should be jointly financed and delivered by employers, universities, and public institutions.

5.5. Fund Basic Research Broadly and Strategically

Early scientific leadership in emerging technologies can become an important source of regional comparative advantage. In Filimonovic et al. (2026), we find that regions with such a lead subsequently develop a patenting advantage in the same field. This suggests that building local scientific capacity early can shape regional competitiveness in emerging fields for years to come. The persistence of this advantage also suggests that access to published knowledge alone may not fully substitute for a strong local research base.

Figure 3 illustrates this relationship. Drawing on 27 emerging technologies across 384 U.S. metropolitan regions over 20 years, the analysis compares regions that pioneered scientific research in a technology with non-pioneer regions. Scientific leadership is measured by publications, and subsequent inventive activity by granted patents in the same technology. The estimates indicate that pioneer regions have approximately 60% more patents when a technology emerges and 120% more ten years later than non-pioneer regions. Although the estimates are based on U.S. regions and a broad set of technologies, the underlying mechanism is likely to matter for Switzerland as it seeks to build scientific leadership in emerging fields with applications in the pharmaceutical industry.

Figure 3. Early scientific leadership in emerging technologies and subsequent regional innovation



Source: Filimonovic, Dragan, Christian Rutzer, Jeffrey Macher and Rolf Weder (2026), "Does Early Regional Scientific Leadership Translate into Lasting Patenting Advantage?", Research Policy, 55(4), p. 7.

These findings point to two complementary priorities for Swiss research policy. Switzerland needs stable and broad-based funding for basic research in established fields such as biology, chemistry, pharmacology, and computational science. At the same time, periods of rapid technological change increase the value of building scientific capabilities early in emerging fields. This is particularly relevant today, as new technologies are reshaping the sources of competitive advantage in the life sciences.

Given the characteristics of basic research (anybody can use it simultaneously) and as the direction of future breakthroughs is difficult to predict and, thus, highly risky, public funding has a central role. Private firms

cannot, or only to a very small extent, capture the benefits of basic research and thus do not invest enough in basic research.

Swiss research policy should therefore combine a strong broad-based scientific foundation with time-limited initiatives that build capabilities in emerging fields.

We recommend the following actions:

Maintain strong and predictable SNSF funding. Protect the full spectrum of life-sciences research. In addition, strategic initiatives in AI and other emerging technologies should complement, not displace, foundational biological, chemical, quantitative, and computational research.

Develop time-limited capability-building programs in emerging fields. Complement investigator-driven project grants with programs that build scientific capabilities in emerging fields at an early stage. These programs should use clear scientific criteria, international peer review, periodic evaluation, and sunset clauses without selecting individual commercial winners.

5.6. Strengthen the Regulatory, Pricing, and Market-Access Framework

Switzerland needs a policy framework that enables it to capture the economic returns from its R&D and manufacturing strengths and supports high-quality healthcare. This requires effective intellectual property protection and supportive conditions for high-value manufacturing, together with pharmaceutical pricing policies and reimbursement procedures that preserve innovation incentives and provide patients with affordable and timely access to medicines.

Reliable access to foreign markets remains essential, given the pharmaceutical industry's strong export orientation. The U.S. pharmaceutical tariffs introduced in 2026 and recent corporate commitments by Roche and Novartis to expand production in the United States illustrate how trade policy and the commercial attractiveness of major markets can redirect investment and manufacturing capacity (SECO, 2026; Novartis, 2025; Roche, 2025). As technologies advance and geopolitical fragmentation intensifies, Switzerland must continue to adapt its policy framework to preserve its position as a leading pharmaceutical R&D and production hub.

The following actions are particularly important:

Reduce avoidable reimbursement delays in Switzerland. Earlier company submissions, greater use of the Early Access procedure, and more predictable BAG processes could accelerate reimbursement without weakening standards for evidence, affordability, and cost-effectiveness (BAG, 2025; IQVIA / EFPIA, 2026).

Assess pharmaceutical pricing in both its domestic and international context. Because Swiss prices may be used in foreign benchmarking systems, domestic pricing decisions tend to affect pharmaceutical companies' revenues in other markets and thereby influence the timing and availability of medicine launches in Switzerland. Authorities should consider these potential spillovers alongside affordability and broader health-system objectives in their regulatory framework (CMS, 2026; Weder, 2007).

Maintain a clear and internationally compatible intellectual property framework. Switzerland should closely follow developments in major jurisdictions and international organizations and update its rules for AI-assisted inventions and research-data governance as needed. In doing so, its international intellectual property policy should protect innovation incentives and remain consistent with Switzerland's humanitarian tradition and commitment to access to medicines.

Use trade agreements to secure and diversify access to foreign markets. Switzerland should continue to make full use of existing agreements, including the EFTA–India TEPA, and continue expanding access to high-growth markets. Trade-policy consultations and export advisory services should pay particular attention to smaller firms, startups, and new exporters, which often have fewer resources to navigate tariffs and regulatory changes.

Strengthen Switzerland's attractiveness for investment in advanced and resource-efficient pharmaceutical manufacturing. Switzerland should maintain favorable framework conditions for the advanced manufacturing of biologics and cell and gene therapies. As production technologies advance, regulatory requirements and approval procedures should be updated in a predictable manner, allowing firms to adopt new methods, including those that reduce energy use, emissions, and material inputs, without unnecessary delay.

6. How to Implement the Life Sciences Strategy?

A strategy without clear institutional ownership risks becoming a wish list. Building on the federal working group established in 2026, the Federal Council should create a *time-limited Life Sciences Strategy Council* (Strategierat Life Sciences) to coordinate and oversee the implementation of the proposed strategy.

The Council should be chaired by an independent person appointed by the Federal Council. An interdepartmental secretariat staffed by representatives of the State Secretariat for Economic Affairs (SECO), the State Secretariat for Education, Research and Innovation (SBFI), and the Federal Office of Public Health (BAG) should coordinate its work. Its mandate should be defined by the Federal Council.

The Life Sciences Strategy Council should include a relatively small number of independent experts and representatives from the participating federal offices, the cantons, academia, healthcare, established life sciences companies, and startups. It should coordinate the six strategic priorities proposed in this paper and recommend to the Federal Council how responsibilities should be allocated among the relevant federal offices and agencies.

Once responsibilities have been assigned, the Council should monitor implementation against measurable targets and publish a concise annual progress report. Formal reporting to Parliament should occur through existing government channels.

Even though, *all six priorities are equally important*, the implementation framework may identify immediate transformation priorities. For health data, AI capabilities and scale-up finance, the Council should define and monitor demanding measurable milestones to be achieved soon. These should cover the operational readiness and use of a national health-data platform, access to shared computing capacity, and the availability of growth-stage capital for Swiss life sciences companies.

For talent, the Council should monitor participation in European research programs and networks, work-permit processing, cross-border mobility, and the expansion of training and reskilling in AI and other emerging life sciences technologies. For basic research, it should track scientific capabilities in emerging fields. For regulation, it should monitor progress in adapting regulations regarding pricing in the international context, approval of new products and the time from authorization to reimbursement.

Private R&D investment, employment, as well as scientific and patenting performance in AI and other emerging life sciences technologies should serve as indicators. Each priority should have a baseline, a designated responsible office, an initial milestone, a 2030 target, and an annual reporting timetable.

The Council should receive an initial four-year mandate. An independent review at the end of this period should determine whether the mandate should be renewed, revised, or terminated. This sunset mechanism would preserve coordination capacity without creating a permanent new agency by default.

7. Conclusion

Switzerland enters the current period of geopolitical fragmentation and technological transformation with strong scientific, industrial, and institutional foundations. However, *these advantages will not secure future performance on their own*. As pharmaceutical production and R&D are increasingly drawn toward major markets, Switzerland cannot match the United States or China in terms of domestic market size. Recent announcements by Roche and Novartis of major investments in U.S. manufacturing and R&D illustrate this shift and the intensifying international competition for pharmaceutical investment (Novartis, 2025; Roche, 2025).

Switzerland's strategy should therefore build on its established scientific and industrial strengths and preserve the international openness and institutional predictability that underpin its position as a trusted

location for life sciences innovation. Crucially, however, it must renew these strengths through a strong focus on emerging technologies and a further development of the Swiss regulatory environment which highly affects the life sciences industry.

Because many of the technologies driving this transformation are still at an early stage, decisions taken now will shape Switzerland's future position. The strategy outlined here sets six priorities which all require immediate attention and a plan for implementation. The proposed Life Sciences Strategy Council may create a time line for the implementation of the six priorities or elements within them.

All of this will require coordination across institutions. This is particularly the case in the creation of high-quality health data, but also in pricing and reimbursement where many stakeholders have strong diverging interests that have to be brought together. For example, in the case of pricing, reforms must balance timely patient access, affordability and innovation incentives in Switzerland. An integrated approach appears mandatory in many strategic priorities proposed in this paper.

Life sciences clusters are self-reinforcing because accumulated scientific expertise, specialized talent, capital, suppliers, and innovative companies make leading locations difficult to replicate. *The same forces can operate in reverse, as sustained losses of research, investment, or production weaken the cluster and make recovery more difficult*. The aim of our proposed strategy is not to shield the industry from competition but to prevent such erosion by sustaining the framework conditions and shared infrastructure on which innovation depends.

The Federal Council should provide political leadership and the proposed Life Sciences Strategy Council should coordinate and monitor the implementation. The responsible federal offices, cantons, regulatory authorities, research institutions, and private actors should carry out the measures according to clear priorities, defined responsibilities, measurable milestones, and regular review. *The ultimate objective is to ensure that Switzerland remains a location where the next generation of life sciences innovation can emerge, scale, and create value.*

One is tempted to say: "This time is different". We thus urge the Swiss government to act with the ambition and coordination the moment requires.

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