

# Academia-Industry Collaboration in Finance: Models of Success

**Based on Interviews with Academia and Industry** 

# **Executive Summary**

Switzerland consistently ranks as a global leader in innovation, a position largely supported by its robust research and development (R&D) ecosystem. Academia-Industry Collaborations (AIC) are one key driver behind the success. However, recent data shows a decline in R&D-performing companies in Switzerland and abroad. This has prompted a closer look at sector-specific challenges, particularly in the financial industry, which contributes significantly to the Swiss economy but has – when compared to pharma or other industries – in general a low-tech, process- and software-focused R&D model. The Swiss Financial Innovation Desk (FIND) conducted a non-exhaustive study to identify success factors, challenges and actionable recommendations for improving AIC and knowledge and technology transfer (KTT) in this critical sector.

Successful collaborations hinge on a foundation of mutual trust and clear communication. Based on 15 qualitative interviews with academic and financial industry professionals the study identified the following critical **success factors**:

- Shared Values & Mutual Trust: Building a strong, transparent relationship is crucial. This involves understanding the distinct goals of both parties: the industry's focus on commercial application and academia's pursuit of knowledge.
- Clear Goals & Communication: Defining explicit objectives from the outset and maintaining open communication channels are essential for aligning expectations and ensuring efficient resource allocation.
- Agility & Adaptability: Both sides must remain agile to respond to rapid market changes. An entrepreneurial mindset in academia encourages the translation of research into practical solutions.
- Stakeholder & Network Management: Long-term commitment from industry partners and the ability to build a broad network of diverse partners create a robust and impactful ecosystem.
- Talent Promotion and Training: Collaborations serve as a key mechanism for identifying and nurturing talent. Academia is perceived as talent pool. Investing in joint training programs helps build the expertise needed to tackle complex challenges.
- Knowledge & Independence: Academic partners must maintain their scientific independence and ensure that wherever possible research findings are publicly accessible to benefit the wider scientific community and society.

# FIND identified the following **key challenges**:

- **Mindset Gaps:** A fundamental disconnect exists between the fast, market-driven pace of the industry and the longer, more deliberative research cycles of academia. Building mutual trust and a common language is time-consuming.
- **Funding:** Industry partners are currently facing tight, project-based budgets, while academia competes intensely for research grants. The complex funding landscape makes it difficult to secure capital for long-term, high-risk projects.
- Transformation of Competitive Environment: The industry is challenged by the rapid pace of digitalization, while academia faces among others a global talent war, especially with Anglo-Saxon institutions offering higher salaries.

- Organizational Misalignment: Lack of personal engagement and experience with industry dynamics within academic institutions, as well as personnel and strategic changes in companies, can destabilize collaborations.
- International and Regional Visibility: International collaboration presents a paradox for Swiss universities in the financial sector, as they navigate the challenge of maintaining international visibility while remaining locally anchored.
- Shift in Social Expectations: The increasingly complex regulatory frameworks, partly derived from a shift of social expectations, force the financial industry to prioritize compliance over innovation. Certain forms of AIC, such as private partnerships, may be perceived differently and lack legitimacy.

Based on these insights, this paper proposes the following **actionable recommendations** to strengthen AIC and KTT in the Swiss financial sector:

- 1. Academia to Define its Unique Value Proposition: Swiss academic institutions need to clearly articulate their specific strengths to compete with other R&D providers like fintechs, non-Swiss academic institutions or consultants.
- 2. Increase Transparency in R&D Spending: The Swiss financial industry should be encouraged to publish R&D data to provide a clearer picture of its innovation efforts and identify areas for collaboration.
- 3. Establish National Start-Up, Spin-Off and Intellectual Property Guidelines: Switzerland lacks unified national guidelines for startups, spin-offs, and intellectual property. Creating national guidelines, led by entities like swissuniversities, would reduce legal complexity and foster more effective collaborations.
- 4. **Strategic Public Funding:** Federal funding programs (e.g., Innosuisse with a targeted federal council mandate) should strategically allocate resources to areas where Switzerland has a competitive advantage, such as sustainable finance, wealth management or natural catastrophe risk.
- 5. Foster Collaboration Between Universities: Encouraging collaboration among academic institutions, possibly through a new "Swiss Finance Institute of Applied Sciences," would prevent duplication of effort and increase international visibility.
- 6. **Promote an Entrepreneurial Mindset:** Academia should integrate an entrepreneurial curriculum through practical projects, hackathons and partnerships with industry to bridge the different skill gaps.
- 7. Overcome Mindset Gaps: Both academia and industry must be flexible and set clear, realistic expectations. Using structured AIC frameworks (e.g., from Innosuisse) can help establish a common language and build mutual trust.
- 8. Create Joint Databases, Platforms and Data Sharing: Establishing platforms for sharing data and best practices would facilitate knowledge transfer and data-driven innovation.
- 9. **Establish a National Technology Transfer Office:** A centralized national office could create synergies, streamline the process, and improve Switzerland's international visibility in R&D projects.
- 10. Raise Awareness of Innovation Shifts: All stakeholders including policy-making and regulatory bodies like FINMA, SNB and SIF should be aware of the changing and to a certain degree sector-specific innovation landscape. Engaging in the policy process is crucial that policy making and regulatory bodies can adopt policies to support, not hinder, progress.

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#### 1 Introduction

Switzerland is globally recognized as one of the most innovative nations. Indeed, Switzerland has taken the **first place for the fourteenth consecutive year on the World Intellectual Property Organization's Global Innovation Index 2024**<sup>1</sup>. Sweden and the United States of America (USA) claimed second and third place. This demonstrates Switzerland's exceptional innovation ecosystem across institutional, human capital, infrastructure, market and business sophistication aspects.

One factor contributing to Switzerland's global innovation leadership is academia-industry collaborations (AIC) in research and development (R&D), namely the extent to which businesses and universities collaborate on R&D. Switzerland's R&D expenditures were CHF 25.9 billion (bn) in 2023 or 3.2% of the gross domestic product (GDP)<sup>2</sup>. This is above the OECD average (2.7%) and Germany (3.1%), but below Israel (6.3%), Republic of Korea (5.0%) and Sweden (3.6%). Switzerland's R&D expenditures mainly derive from the private sector (approx. 70%) and the remainder from the public sector (approx. 30%). The private sector is dominated by the sector pharma (CHF 5.5 bn), sector research and development (CHF 2.8 bn), the machinery (CHF 1.8 bn) and high-tech instruments (CHF 1.2 bn) sectors. **R&D expenditures of the financial sector are interestingly not reflected in the federal statistics.** This is remarkable as the financial sector (banks, insurances) added value of CHF 74 bn or 9.0% of Switzerland's GDP over CHF 824.6 bn (2024)<sup>3</sup>.

Also, and even though Switzerland is considered as one of the most competitive countries in the world, recent innovation statistics<sup>4</sup> have shown a **significant decline in the proportion of companies in Switzerland involved in R&D**. This applies to the proportion of companies with R&D collaborations in Switzerland, but also to R&D collaborations abroad. To analyse the reasons for the decline in R&D-performing companies the State Secretariat for Education, Research and Innovation (SERI) commissioned a study<sup>5</sup> that revealed several unique challenges to companies' innovation activities. These include:

- growing centricity of consumers and clients in innovation processes;
- widespread digitalization of innovative products and services;
- increasing emphasis on sustainability in innovation projects;

<sup>&</sup>lt;sup>1</sup> World Intellectual Property Organization (WIPO). (2024). Global Innovation Index 2024: Unlocking the Promise of Social Entrepreneurship. WIPO.

<sup>&</sup>lt;sup>2</sup> Bundesamt für Statistik (BFS). (2025). Forschung und Entwicklung in der Schweiz 2023: Finanzen und Personal. Neuchâtel: Bundesamt für Statistik (BFS).

<sup>&</sup>lt;sup>3</sup> State Secretariat for International Finance (SIF). (2025). Swiss financial sector: Key figures 2025. Federal Department of Finance FDF.

<sup>&</sup>lt;sup>4</sup> Spescha, A., Tran, S., & Wörter, M. (2025). Innovation und Digitalisierung in der Schweizer Privatwirtschaft: Ergebnisse der Innovationserhebung 2023 (Nr. 182). KOF Swiss Economic Institute.

<sup>&</sup>lt;sup>5</sup> Barjak, F., Foray, D., & Wörter, M. (2023). Mastering multiple complexities: A rising challenge for Swiss innovation models (KOF Studies, No. 173). KOF Swiss Economic Institute. Retrieved from <a href="https://doi.org/10.3929/ethz-b-000600231">https://doi.org/10.3929/ethz-b-000600231</a>

- increasing influence of regulations;
- and the transformation of the competitive environment (e.g. geographic shifts, new entrants from the technology sector, disruptive start-ups).

This SERI innovation models study made clear that conditions and context of innovation are to some degree sector-specific, and a "one-size-fits-all" approach is neither suitable to understanding corporate innovation activities nor from a policy perspective appropriate to support them. The Swiss finance sector's innovation is currently driven by the digitalization of financial processes and the entry of new tech-focused players, which has led to a greater emphasis on agile, short-term projects. As a result, banks are reducing R&D budgets and focusing on smaller innovation projects with quick time-to-market, particularly in customer-facing areas<sup>6</sup>.

SERI initiated a currently **ongoing new study**<sup>7</sup>, jointly supported by the Swiss Bankers Association (SBA), Swiss Fintech Innovations (SFTI) and the Swiss Insurance Association (SIA) that aims to identify sectoral innovation models and their implications for Swiss innovation policy. Publicly available results are expected for 2026. **Finance is one of the focus sectors** that will be analysed in-depth, given the importance for the Swiss economy but also being considered particularly impacted of the macro trends outlined beforehand.

The described issues have previously already been taken up by the Swiss Federal Council and the Swiss State Secretariat for International Finance SIF in the Digital Finance: Areas of Action 2022+ report<sup>8</sup>, which was also the basis for the Swiss Financial Innovation Desk (FIND), a pilot and central public hub for any matters relating to financial innovation in Switzerland. FIND has conducted a FIND workshop – "Academia + FinTech + Innosuisse" on 16 October 2024 to understand but also support the enabling key factors driving science-based innovation. FIND visualized Switzerland's academic landscape with a nexus to financial innovation on its website with an interactive tool called "FIND Map", respectively "FIND your Academia" to make academia more visible to the industry and thereby enable collaborations.

Both the FIND Map and the insights gathered at the workshop but also the crucial insights of the SERI innovation models study (and upcoming results of the ongoing new study on the topic) on

<sup>&</sup>lt;sup>6</sup> Barjak, F., Cornet, B., Foray, D., & Wörter, M. (2024). Full proposal "New innovation models" - public document. ETH Zürich, Universität St.Gallen, EPFL, and FHNW

Barjak, F., Cornet, B., Foray, D., & Wörter, M. (2024). Full proposal "New innovation models" - public document. ETH Zürich, Universität St.Gallen, EPFL, and FHNW.

<sup>&</sup>lt;sup>8</sup> Federal Council. (2022). *Digital finance: areas of action 2022+*. Federal Department of Finance FDF.

<sup>&</sup>lt;sup>9</sup> Swiss Financial Innovation Desk FIND. (2025, April 16). FIND Map: Swiss Financial Innovation Ecosystem. Retrieved from <a href="https://find.swiss/announcements/findmaponline">https://find.swiss/announcements/findmaponline</a>

challenges on Swiss innovation models inspired FIND to conduct further research on AIC and the related knowledge and technology transfer (KTT) in the Swiss financial sector.

FIND thus conducted 15 interviews with stakeholders from academia and the industry with a nexus to finance. The aim was to identify success factors, challenges and provide recommendations for AIC and KTT in the financial industry. Navigating the complex landscape of AIC and KTT requires a holistic approach, whereas this paper does not aim to be an exhaustive analysis but rather to initiate a discourse and provide actionable recommendations.

FIND understands AIC within the meaning of the also often used term of University-Industry Collaborations (UIC). AIC means the "strategic alliance between institutions of higher learning and commercial enterprises. This partnership transcends mere transactional exchanges; it embodies a dynamic interplay where the theoretical prowess of academia converges with the practical application and market acumen of industry. The definition of AIC, in its most basic statement, is the structured cooperation between universities or research institutions and businesses for mutual benefit." Academia or universities entails both universities and universities of applied sciences in Switzerland accredited by swissuniversities with a nexus to finance. For purposes of this paper, the term "university" comprises both unless otherwise stated.

#### 2 Status Quo: AIC in the Swiss Financial Sector

The following section provides an outline over the current landscape of AIC in the Swiss financial sector. It entails an overview over the Swiss financial sector, the academic landscape with a nexus to financial innovation, R&D in the financial sector, an overview over the multifaceted nature of AICs as well as the relevance of public funding schemes.

# **Swiss Financial Industry**

The Swiss financial industry contributed **9.0% of Switzerland's GDP in 2024** with diminishing tendencies compared to 2014 in which the sector contributed 9.9% to the GDP. In terms of employment within the financial sector, the most full-time equivalent (FTE) jobs are in the banking sector (110,008 FTE) followed by auxiliary activities to financial and insurance activities (72,019 FTE) and the insurance sector (44,457 FTE). The industry represented 5.2% of the overall employment in 2024. The banking sector entails **230 banks** (2023) with different business models with a balance sheet over CHF 3,219 billion (2024). The insurance sector compromises **194 insurers** split into non-life insurers (117), reinsurers (48), life insurers (18) and health insurance funds (11)<sup>11</sup>. Fintechs understood as "technology-based solutions for innovative products, services, and processes in the financial industry" entail **483 fintech companies in** 

<sup>&</sup>lt;sup>10</sup> The Sustainability Directory. (2025). Academic-industry collaboration. The Sustainability Directory. Retrieved from <a href="https://climate.sustainability-directory.com/term/academic-industry-collaboration/">https://climate.sustainability-directory.com/term/academic-industry-collaboration/</a>

<sup>11</sup> State Secretariat for International Finance (SIF). (2025). Swiss financial sector: Key figures 2025. Federal Department of Finance FDF.

**Switzerland** by the end of 2024, a sector currently indicating signs of stagnation<sup>12</sup>. The financial industry ecosystem is complemented with financial market infrastructure providers, various associations with a nexus to finance such as the Swiss Banking Association (SBA), the Swiss Insurance Association (SIA), the Digital Insurance Association Switzerland (DIAS), the Swiss Fintech Innovations (SFTI) or the Swiss Fintech Association (SFTA) to just name a few, public-sector bodies including the Swiss Financial Market Supervisory Authority (FINMA) or the Swiss National Bank (SNB) among others further elaborated in FIND's "Financial innovation in Switzerland – An overview"<sup>13</sup>.

# Swiss Academic Landscape in Financial Innovation

The Swiss academic landscape in financial innovation entails **twelve Swiss universities and nine universities of applied science** accredited by swissuniversities that actively contribute to financial innovation. Within the mentioned universities FIND has identified over 50 dedicated centers of competence or institutes. They are visualized and linked to one or more innovation topic on the FIND Map – FIND your Academia. The **Swiss Finance Institute (SFI)** complements the dedicated centers of competences and institutes. It is a joint-academic institution and national center currently uniting eight Swiss partner universities (non-applied) which is recognised as one of the world's top 10 research institutes in banking and finance that bridges academic research and practical applications<sup>14</sup>.

#### Research & Development in the Financial Industry

R&D in the financial sector naturally often focuses on processes, business models and software, rather than on creating new physical products or materials. It is typically a different kind of R&D that is often less capital-intensive compared to other industries. Furthermore, financial products and services can be easily replicated by competitors discouraging substantial R&D investments. Compared to other sectors like pharmaceuticals and technology in which R&D is a core function of the business and a competitive advantage, financial companies typically have a competitive edge through brand reputation, customer relationship and economies of scale. Financial service providers' R&D spendings rather focus on operational expenses than traditional, product-focused R&D. Consequently, the **financial industry may be characterized as a low-tech industry**. This is supported by the R&D statistics by sector (US) when comparing R&D expenditures in percentage of revenue for both different

<sup>&</sup>lt;sup>12</sup> Ankenbrand, T., Bieri, D., Haeberli, D., Rhyner, U., Wherlock, A., Wickihalder, S., & Gattlen, A. (2025). IFZ FinTech Study 2025: An Overview of Swiss and Liechtenstein FinTech. Lucerne University of Applied Sciences and Arts. Retrieved from <a href="https://www.hslu.ch/en/lucerne-university-of-applied-sciences-and-arts/research-and-consulting/competence-centers/ifz/publications/fintech-study/">https://www.hslu.ch/en/lucerne-university-of-applied-sciences-and-arts/research-and-consulting/competence-centers/ifz/publications/fintech-study/</a>

<sup>&</sup>lt;sup>13</sup> FIND (Swiss Financial Innovation Desk). (2025, March 31). Financial innovation in Switzerland - An overview. FIND. Retrieved from <a href="https://find.swiss/find-library/articles/financial-innovation-in-switzerland">https://find.swiss/find-library/articles/financial-innovation-in-switzerland</a>

<sup>14</sup> Swiss Financial Innovation Desk FIND. (2025). Introducing the FIND Map: Your Gateway to Switzerland's Financial Innovation ecosystem. Retrieved from https://find.swiss/announcements/findmaponline

sectors but also the total market with and without financials<sup>15</sup>. Richard Hess, Head of Digital Finance at the SBA recently stated that "innovation in banking is incremental, not radical" clarifying that the focus lies on the optimization of existing processes and system efficiency rather than creating entirely new business models<sup>16</sup>. The insurance sector, in which most innovations and R&D activities occur within insurance firms, is also considered as low-tech sector<sup>17</sup>.

# Types of Academia-Industry Collaborations

AIC encompass a wide range of activities that bridge the gap between theoretical knowledge and practical application. These collaborations are crucial for driving innovation, enhancing education and stimulating economic growth. The following non-exhaustive **table outlines the multifaceted nature and forms of AIC partnerships**, differentiated by category, form of collaboration, description and a practical Swiss example.

Category	Form of collaboration	Description	Example (based on publicly available informatoin)
Research & Development	Joint R&D Projects	Collaborative initiatives where one or more academic institution and one or more industrial companies pool their resources, expertise and knowledge to conduct R&D activities aimed at achieving shared objectives.	Viseca and the ETH AI Center formed a corporate partnership to assess the future role of AI in financial services, payments and fraud detection.
Research & Development	Contract Research	Specific type of arrangement where one or more industrial company (client) commissions and pays one or more academic institutions to undertake a defined R&D project or provide specific services.	Eastern Switzerland University of Applied Science (OST) and SFTI jointly developed a white paper on "A Scalable Framework for Implementing Artificial Intelligence in Swiss Financial Institutions".
Research & Development	Scientific theses	Bachelor's, Master's, and Doctoral/PhD theses represent a unique and highly beneficial form of partnership that bridge the gap between academic theory and industrial practice.	S. Wendelspiess (Student FHNW) developed her Bachelor's thesis together with Helvetia as industrial partner.
Technology Transfer	Licensing	Licensing involves granting permission to an industry partner (licensee) to use intellectual property (IP) developed by the university. This can be an exclusive license, where the licensee holds sole rights, or a non-exclusive license, where the	Visual patient avatar developed by the University of Zurich and exclusively licensed to Philips (2018).

<sup>15</sup> Damodaran, A. (2025, January). R&D Statistics by Sector (US). New York University Stern School of Business. Retrieved from https://pages.stern.pvii.edu/~adamodar/New Home Page/datafile/R&D html

<sup>&</sup>lt;sup>16</sup> Swiss Banking Association. (2025, June 26). Innovation in banking is incremental, not radical. Retrieved from https://www.swissbanking.ch/en/media-politics/news/insight-2-25-en-innovation-in-banking-is-incremental-not-radical

<sup>&</sup>lt;sup>17</sup> Ozcan, S., Vogel, D. B., & Saritas, O. (2025). Technological adoptions and sector-specific innovations in a low-tech environment: key actors and sources of R&D in InsurTech. Scientometrics, 130, 1–20. Retrieved from <a href="https://doi.org/10.1007/s11192-024-05209-7">https://doi.org/10.1007/s11192-024-05209-7</a>

		licensor retains ownership and can grant rights to multiple licensees.	
Technology Transfer	Spin-Offs / Spin-Outs	Companies founded by one/multiple university member(s) to commercialize a technology or invention originating from a university. The university, as the IP owner, typically receives equity or a licence fee. This mechanism is often chosen when a technology has the potential for multiple products across various sectors.	ETH and HSG spin-off label for the fintech Kaspar&.
Technology Transfer	Start-Ups	Companies founded by one/multiple (usually former) university member(s) to commercialize a technology or invention not originating from a university. Where conditions are met, start-ups may opt-in to obtain a university start-up label to benefit from enhanced credibility, networking opportunities and access to resources.	EPFL startup label for the fintech FumeX, a fund tokenization platform.
Knowledge Transfer	Consulting Arrangements	Refer to situations where individual academics or small groups of academics provide specialized expert advice, analysis, or problem-solving services directly to an industrial company for a fee (or less common vice versa).	Professors at the University of Zurich enter into consulting contracts in a personal capacity and as secondary employment.
Knowledge Transfer	Talent exchange	Refers to the reciprocal movement of individuals between academic institutions and industrial companies for a defined period, with the aim of fostering knowledge transfer, skill development, and mutual understanding.	Helvetia Consulting offers a junior consultant program in which students are employed between 40-100% during their studies.
Knowledge Transfer	Continuing Education programs	Specialized training and development courses or initiatives offered by academic institutions, often in partnership with industry, to provide professionals with updated knowledge, new skills, and advanced qualifications relevant to evolving industry needs.	University of Geneva offers a Geneva Master of Advanced Studies in Finance together with the Chartered Financial Analyst (CFA) Institute.
Knowledge Transfer	Mentoring and Coaching	Connect universities with industry by offering students and young professionals with guidance from industry experts (or less common vice versa). Designed to facilitate the transfer of knowledge and practical experience from mentors to mentees.	Mentoring program of the University of St. Gallen.
Knowledge Transfer	Joint Publications	Collaborative research leading to shared academic-industry publications, disseminating new knowledge across sectors.	IFZ study on pension funds 2023 was published by Lucerne University of Applied Sciences and Arts and industry partners UBS, Mobiliar, M&S Software Engineering and Sobrado.
Infrastructure and Platforms	Various	Multiple forms of AIC and dynamic interplays both of physical and non-physical nature summarized as "infrastructure and platforms". It includes joint use of infrastructure and facilities, establishment of joint labs, hubs and research centers, but also events, initiatives, collaborative tools or shared platforms or databases.	Various

Source: FIND, based on publicly available information

AIC in finance are unique ways to drive innovation and enable KTT. However, financial industry actors may engage in the financial ecosystem without academia to foster innovation, enable KTT or drive R&D. For instance, **in-house R&D** can be perceived as an alternate model to AIC. Another model involves **joint-enterprise initiatives**, such as fintech partnerships. **Consultancy firms** also play a significant role, offering specialized knowledge and R&D services to financial institutions, usually on a project basis. These examples showcase that academia is part of an ecosystem in which other ecosystem participants collaborate but noteworthy compete for

talent and resources, often providing a more direct and immediate pathway to translate research, knowledge and technology into impact.

#### Role of Public Funding Schemes in Switzerland

The Swiss Innovation Agency (Innosuisse) and the Swiss National Science Foundation (SNSF) are two key federal funding organizations in Switzerland, playing complementary roles in promoting research and innovation. Both organizations are recognized as a relevant source of funding for AIC in Switzerland. Innosuisse' primary role is to promote science-based innovation in the interest of the economy and society in Switzerland. It aims to turn innovative ideas into successful new products and services. SNSF' mandate is to fund research in all scientific disciplines, from fundamental knowledge to application-oriented basic research. Both organizations work closely together, often through joint programs like BRIDGE<sup>18</sup>, designed to bridge the gap between basic research and market application. Both aim to strengthen Switzerland's position as a leading hub for research and innovation. The national public funding landscape is supplemented with international programs like Horizon Europe<sup>19</sup> or bilateral funding schemes.

Beyond public funding schemes, AIC can be funded through a variety of other mechanisms. Foundations and other philanthropic organizations provide grants and endowments to universities for specific research areas, often without the strict deliverables set by commercially driven contracts. A **role model is the ETH Foundation** that even established a foundation structure in Germany and the USA to attract international funding. Additionally, industry itself directly sponsors research agreements, provides in-kind contributions like equipment and expertise and supports partnerships through corporate venture capital or R&D grants. Finally, indirect funding can come from industry associations or other consortia, which pool resources from multiple companies to support research that benefits the entire sector.

#### 3 Success Factors for AIC in Finance

The following section entails the strategic fundamentals and success factors of AIC in finance. It is based on the interview insights obtained through 15 qualitative interviews with academia and financial industry professionals.

# Strategic Fundamentals

The core vision of AIC is to accelerate innovation for societal benefit by bridging the gap between scientific excellence and economic relevance. On the one hand, academia is fundamental for cutting-edge theoretical research and creates new knowledge, expertise, technological advancements and talent. On the other hand, industry partners serve as crucial bridge builders, providing financial resources, practical expertise and knowledge about

For more information on BRIDGE see <a href="https://www.snf.ch/en/m1BuKkhqcSedG8lx/funding/programmes/bridge">https://funding/programmes/bridge</a> or FIND's factsheet under <a href="https://find.swiss/find-library/articles/factsheet-bridge-for-academic-researchers">https://find.swiss/find-library/articles/factsheet-bridge-for-academic-researchers</a>.

<sup>&</sup>lt;sup>19</sup> Horizon Europe is again largely accessible for Swiss universities, see <a href="https://www.economiesuisse.ch/en/node/49101">https://www.economiesuisse.ch/en/node/49101</a>.

market demand to address global challenges and develop solutions that academia alone might not pursue (especially high-risk research). This creates a win-win partnership: the industry gains access to cutting-edge research and talent, while academia secures funding and avenues for knowledge and technology transfer. Those win-win partnerships are multifaceted because they are not merely an exchange of knowledge, but a symbiotic relationship driven by diverse and often distinct goals of each partner. They are complex ecosystems involving a variety of non-linear value creations, ranging from talent development, funding, technology transfer and even societal problem-solving. This complexity arises from balancing the academic pursuit of fundamental knowledge with the industry's need for practical application, commercialization and rapid innovation. The key principles of AIC are rooted in mutual trust, shared values and the non-negotiable principle of scientific independence, ensuring academic integrity is maintained. Effective AIC require clear governance and transparency to manage expectations and mitigate risks.

#### **Success Factors**

- Shared Values & Mutual Trust: This category consolidates shared values, mutual trust
  and transparency. Building a strong foundation requires a transparent and honest
  relationship between all partners. Trust is essential for navigating the complexities of
  collaborations and for mitigating reputational risks for each organization. Practical
  expertise within academia and research knowledge within the industry support the
  common understanding and shared values.
- 2. Clear Goals & Communication: This category combines clear goals with effective communication and a structured framework for project launch. Defining explicit research objectives from the outset is vital for success. A well-defined project or collaboration framework further ensures alignment and efficient resource allocation from the very beginning. Establishing clear communication channels with the partner, within own organization but also with external and public stakeholders is essential to visualize and share progress and to celebrate potential achievements.
- 3. Agility & Adaptability: This category focuses on the importance of agility, adaptability, an entrepreneurial mindset of academia and project-wise a "fail and fail fast" approach<sup>20</sup>. For successful collaborations, noteworthy academia, must remain agile to respond to rapid market developments like artificial intelligence (AI) or digital finance and other demands from the fast-paced financial industry. An entrepreneurial mindset in academia encourages a strengthened link to practice. Adaptability is crucial for AIC, especially for joint R&D projects (for details see table above). Projects might be adjusted throughout their project roadmap or are subject to fail, given their traditional nature of uncertain outcomes. Instead of viewing failure as negative, projects should be considered as a continuous learning opportunity, making it wise to "fail and fail fast".

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<sup>20 &</sup>quot;Fail and fail fast" means that it is better to make mistakes quickly and identify them early to learn from them and avoid investing resources in unsuitable approaches. Instead of avoiding mistakes or sticking with an unsuccessful project for a long time, it is recommended to quickly find out whether something works or not through early experiments and tests. This allows failures to be identified as cheaply and effortlessly as possible, so that the strategy or product can then be quickly adapted or discontinued.

- 4. Stakeholder & Network Management: This category highlights the importance of creating a strong network of partners, and to actively and strategically engage with them to support the collaborations. Successful AIC rely on long-term commitments from industry partners. The freedom to select diverse partners, including multiple universities or industry players, creates a robust ecosystem. Cooperating with multiple organizations helps to build a broader, more impactful network and allows for synergy effects.
- 5. Talent Promotion and Training: This category emphasizes the importance of talent promotion and training as a core strategic task for successful collaborations. Identifying and nurturing intrinsically motivated talent ensures a continuous pipeline of skilled individuals who are essential for innovation. This is especially valid for academia being perceived from the industry as a talent pool and a valuable knowledge provider. Indeed, training is seen as a strategic core task by academia. By investing in training, both academic and industry partners can build the expertise needed to tackle complex challenges and to secure the long-term competence and innovative strength of Switzerland.
- 6. Knowledge & Independence: This category combines the importance of maintaining scientific independence with a commitment to making knowledge publicly available. Academic partners must ensure they retain control over their research to maintain credibility, which may be achieved through diverse funding and clear governance structures. Publicly sharing research outcomes, knowledge and technologies ensures the collaboration benefits the wider scientific community and society and has positive ripple effects on the entire ecosystem. An understanding of this from the industry is crucial.

#### 4 Challenges for AIC in Finance

This section entails challenges of AIC in finance and is based on the interview insights obtained.

- 1. Mindset Gaps: This category represents the mindset gaps and the time needed for building mutual trust and a common language. Differences in working styles like industry's focus on project milestones versus academia's longer-term research methods can create frictions. The industry has a rising expectation for timely and project-based results. On the other hand, academia may aim to accelerate innovation for the benefit of the society. Overcoming and understanding these fundamental differences and building trust is a time-consuming but essential process.
- 2. Funding: This category stands for the identified issues related to tight industry budgets for academic collaboration and the increasing complexity of the funding landscape. While academia relies on a mix of public, private and foundation grants, there is intense competition for research funding, especially for high-risk projects not funded by the public sector. The complex and partly inadequate funding environment further complicates efforts to secure the necessary capital for long-term R&D. Additionally, industry partners currently face tight and rather project-based budgets. This financial pressure force institutions to prioritize projects with clear commercial potential over those with broader societal benefits.
- 3. **Transformation of the Competitive Environment**: The financial industry is undergoing rapid digital transformation, driven by innovations such as Al and DLT-linked finance,

- geographic shifts, new entrants from the technology sector or disruptive start-ups. This poses a serious challenge for the industry to identify opportunities and allocate resources accordingly. Academic institutions have to quickly adapt their curricula and research to remain relevant and competitive. They also face a global talent war, particularly with Anglo-Saxon institutions that offer higher salaries and more aggressive recruitment policies. On the other hand, Swiss academia is being perceived as expensive especially compared to European counterparts, being a barrier for collaborations.
- 4. Organizational Misalignment: A significant challenge is ensuring organizational alignment of resources and responsibilities. Successful AIC require not only financial but also non-financial resources. Setting up and upholding collaborations require exceptional personal engagement (e.g. event participation or informal meetings) that usually goes beyond a traditional collaboration framework. Changes in personnel or strategy on the industry side but also a lack of experience of academic research destabilize the collaborations. Research teams in the industry may even perceive academia as a competitive force. Meanwhile, universities are facing pressure to become more entrepreneurial, which requires a significant cultural shift from their traditional academic focus. While some institutions have established central coordination offices to bridge this gap, their effectiveness may sometimes be limited by a lack of understanding of industry dynamics, potentially leading to missed collaboration opportunities, both on a national and international level.
- 5. International and Regional Visibility: International collaboration is difficult due to varying cultural values, funding shortages and deviating expectations from industry partners. Globally acting industry partners work with various, non-Swiss academic partners. While international conferences and research projects can enhance a university's global reputation, national funding programs like Innosuisse projects often scale poorly internationally. Universities, especially universities of applied science have a strong regional and language focus but engage for example in international business communities or with peer reviews. This creates a paradox where universities are challenged to increase their international visibility while remaining locally anchored.
- 6. Shift in Social Expectations: This category focuses on the challenges of increasing complexity and relevance of regulatory frameworks and a shift of social expectations. Tight regulatory requirements are perceived as substantial innovation blockers, requiring industry partners to spend innovation budgets rather on regulatory requirements than innovative services. This is to some extent a result of the rapid pace of social and economic developments. The shift of social expectations further puts pressure on private partnerships in higher education to justify their legitimacy and bear a reputational risk for industry partners.

#### 5 Recommendations for AIC in Finance

The following section entails a non-exhaustive list of actionable recommendations for AIC in finance. It is based on FIND's research and the interview insights obtained.

Academia to Define a Unique Selling Proposition: Swiss academia in finance needs to clearly define its unique value proposition within the Swiss academic landscape but also compared to alternative R&D, knowledge and technology providers like fintech, non-Swiss academia or consulting agencies. This requires a clear strategy, agility and adaptability regarding changing

conditions including new and digital business models, regulatory requirements or social expectations. Academia should further promote the benefits of long-term and scientific approaches. However, it triggers the difficult question on how to increase international visibility while remaining locally anchored and relevant.

Increase Transparency in R&D in Finance: The Swiss financial industry should be encouraged to publish more data on its R&D spending, at least consolidated for the purpose of the Federal Statistical Office's (FSO) annual R&D expenditures statistics. Organizations like SBA, SIA, SFTA or SFTI could facilitate this, providing a clearer picture of the financial sector's contribution to Swiss R&D expenditures and innovation. This transparency could motivate the ecosystem to invest more and highlight areas ripe for collaboration.

Develop National Start-Up, Spin-Off and Intellectual Property Guidelines: Switzerland requires a unified set of national guidelines for AIC and KTT as the today's opaque landscape of regulations and policies hinders effective collaboration and limits innovation potential. The existing start-up, spin-off and intellectual property policies are fragmented and need to be interpreted and applied on a case-by-case basis. A coordinated effort, perhaps led by swissuniversities with the support of SERI, individual and joint technology and transfer offices like Unitectra, could create a level playing field, reduce legal, reputational and administrative complexity both for the industry but notably for academia, their institutes, professors and students. Existing guidelines like the just revised ETH or partly sector specific EPFL guidelines serve as recommended and highly valuable blueprints.

Strategic Public Funding: National funding programs like Innosuisse or SNF already play a crucial role by providing funding for joint innovation projects. They should promote awareness of these existing programmes but also strategically allocate funds to areas where Switzerland has a proven or is establishing a competitive advantage in finance. Examples include natural catastrophe risk in the insurance sector, international wealth management in the banking sector or sustainable finance in academia. Learning from countries like Israel, which focused on cybersecurity to become a global leader in this area, Switzerland should concentrate its efforts on these niches. This approach requires a federal council mandate, backed by the industry and parliament.

Foster Collaboration between Universities: Fostering collaboration between universities is a crucial component of strengthening the overall Swiss financial ecosystem and to obtain international visibility. While each university possesses unique strengths, combining their expertise through joint projects and shared resources can amplify their impact. This approach not only prevents duplication of efforts but also allows for tackling more complex, large-scale and international challenges that a single institution cannot address alone. The Swiss Finance Institute already combines the expertise of eight Swiss universities with a nexus to finance. Another successful interdisciplinary initiative to promote digitalization is the Digitalization Initiative of the Zurich Higher Education Institution (DIZH) that foster collaboration between universities. Universities of applied sciences could combine their practical financial expertise through a to be established "Swiss Finance Institute of Applied Sciences" to foster synergies and expand international reach. The FIND Map may serve as a valuable and to be further developed tool to identify and engage with potential academic collaboration partners in financial innovation.

Promote an Entrepreneurial Mindset in Academia: Promote an entrepreneurial mindset within academia and integrate an entrepreneurial curriculum. This can be achieved through practical projects with industry partners, hackathons, entrepreneurship programs and supported by dedicated technology and transfer offices. For instance, OST successfully integrated student consulting projects with industry partners in their curriculum. The projects are led by a group of students, supervised by OST lecturers and coordinated by their knowledge transfer & innovation office. To address skill gaps in the industry both parties should collaborate to codevelop curricula and training such as joint workshops on blockchain technology or Al finance. The success of these collaborations depends on cultivating a new generation of talent with a strong entrepreneurial mindset.

Overcome Mindset Gaps: Industry operates on a fast, market-driven timeline, while academia works on longer research cycles. Both sides need to be flexible and set clear, realistic expectations and goals from the outset. Within projects an initial structured framework, e.g. from Innosuisse, is helpful to find a common language, bridge the gap in timelines and goals to ultimately build mutual trust and shared values. In this context, clear communication and communication channels are key.

Foster Joint Databases, Platforms and Data Sharing: Creating platforms for sharing best practices and fostering joint databases would enable researchers and industry professionals to access and utilize data more effectively, paving the way for data-driven innovation and research. Both universities and the industry should collaborate to create legal frameworks for data sharing, using anonymization and secure platforms addressing privacy and security concerns. To enhance international visibility, a curated digital platform showcasing best-in-class academic publications from all Swiss universities with a specific focus on finance could be established, similar to SFI publications platform. Another idea could be a digital platform or "hub" that serves as single point of contact for academics, industry partners and national fundings programs listing available research projects, expertise, funding opportunities, making it easier for both sides to find the right partner.

Establish a National Technology and Transfer Office: Switzerland does not have a single, central national technology transfer office (TTO) that supports and tracks international R&D projects for all Swiss universities. Instead, the country's system is highly decentralized and relies on a network of various organizations and offices. The system entails a network of decentralized TTOs, coupled with the support from federal agencies like Innosuisse and SNSF. Unitectra, the joint TTO for the universities of Basel, Bern and Zurich could serve as role model. A national TTO could lead to synergy effects and improve international visibility.

Raise Awareness of Innovation Shifts: The Swiss financial sector and their innovation activities are rendered by various challenges. The SERI innovation models study revealed the growing centricity of consumers in the innovation process, the digitalization of services and products and the transformative nature of the competitive environment. On top there is an increasing emphasis on sustainability on innovation projects and regulations are becoming more influential. All stakeholders should be encouraged to create awareness and engage in the policy process. Especially governmental and regulatory bodies such as the FINMA, the SNB or the State Secretariat for International Finance (SIF) should consider innovation shifts while shaping the regulatory framework for the financial sector in Switzerland.

## 6 Impressum

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