

Artificial Intelligence Industry in Switzerland Landscape Overview 2021 Q4

Teaser

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Contributors



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AI Industry in Switzerland Landscape Overview 2021 Q4

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Introduction

Developed by Deep Knowledge Analytics with a support of SwissCognitive, **Artificial Intelligence (AI) Industry in Switzerland Landscape Overview 2021 Q4** report contains a comprehensive overview of the AI sector, providing such qualitative indicators as key findings and general landscape of the industry, and quantitative indicators like Distribution of AI companies by Swiss Regions, 500 AI Companies by Categories and Number of Employees, Top 100 Swiss Companies' Funding by Categories, and Leading AI Start-Ups in Switzerland.

Switzerland is home to many leading AI research institutes spread out over a manageable geographical area. This closely-knit network and a pragmatic collaboration between key research institutes and strong industrial players results in the highly efficient transfer of technology, which brings innovative products to the market quickly.

AI is a main component of the Swiss digitalisation process. The study is compassed based on the analysis of the AI of such aspects as the interaction and involvement of the Swiss government in AI, the digital solutions implemented in the fight against the consequences of COVID-19, the usage and influence of the AI in various business sectors, the main trends and predictions of the AI field in Switzerland.

AI Industry in Switzerland Landscape 2021 Q4

Healthcare & Life Sciences

Science & Engineering

Companies - 500+
Investors - 220
Non-profits, R&D
Centres and Hubs - 50+

Consulting Services

Virtual Assistant & Chatbots

Recruitment & HR

Entertainment

Logistic & Transportation

FinTech & InsurTech

Geoscience & Geospatial

Retail Solutions

Security & CyberSecurity

Others

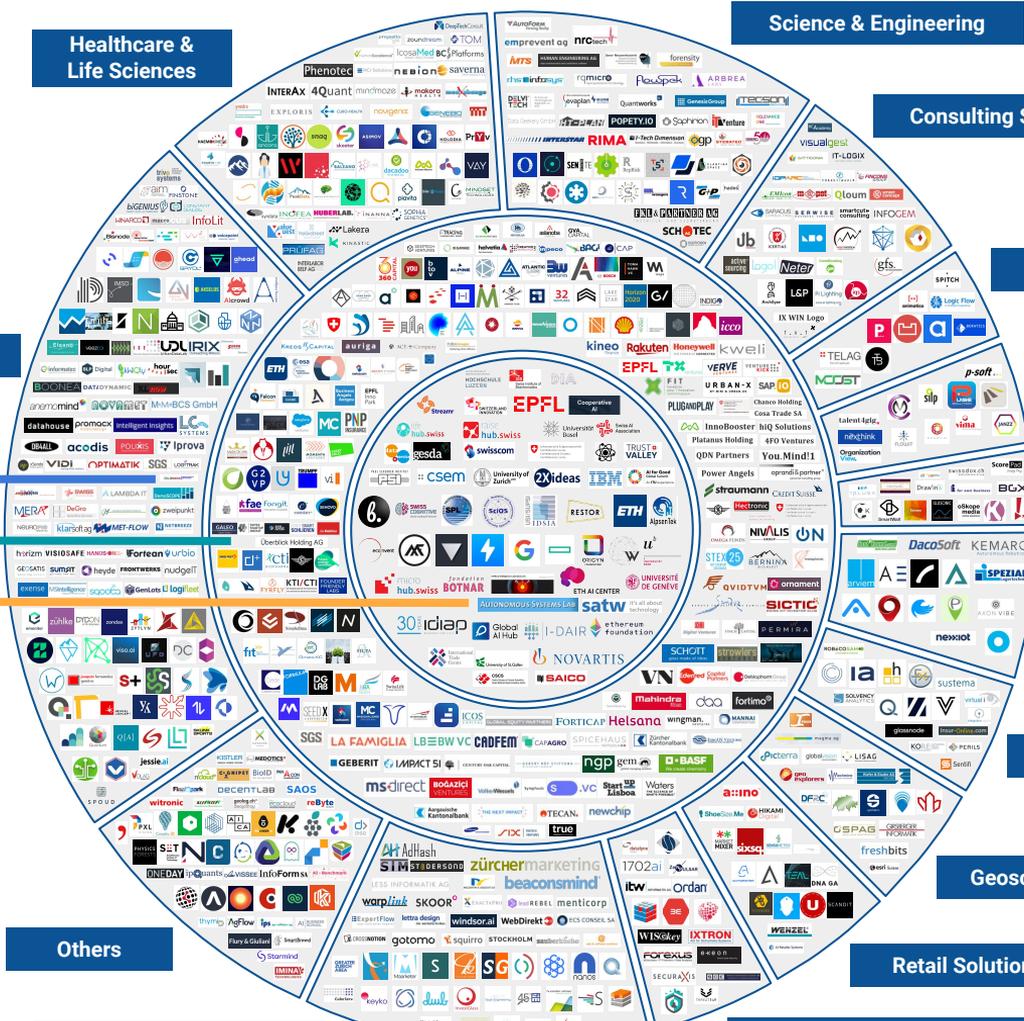
AdTech, Sales, & CRM

Marketing & Analytics

AI Companies

Investors

Non-Profits, R&D Centres, and Hubs



DEEP
KNOWLEDGE
ANALYTICS



SWISS
COGNITIVE
World-Leading AI Network

Key Findings

Swiss Government Engagement on AI Development: Digital Switzerland Strategy provides the guidelines for government action and indicates where and how the authorities, academia, the private sector, civil society, and politics must work together to shape the transformation process for the benefit of everyone in Switzerland.

Switzerland has stable political and economic environment and offers globally active companies a safe place to host and validate their data. The combination of high data security and data quality, political stability, and legal certainty leads to reduced risks for companies. Likewise, **the country offers a safe place for investors' assets** due to its taxation system, geographic and political position, low inflation and highly skilled professionals.

Switzerland is host to a variety the finest technical institutes such as ETH Zurich, EPF Lausanne, or Lugano IDSIA Lab and has been among the major attractions for some of the brightest heads involved in AI development. As a result, Switzerland has emerged as a serious competitor to California for the **technologies, human resources, and funding**.

In Switzerland, different institutions are conducting studies to answer questions regarding topics such as **ethics and the risks and opportunities of AI innovations**. Swiss federal government has funded research programmes on the effective and appropriate use of Big Data, and incorporated a federal working group specialised in AI.

1st place

Global Innovation Index (WIPO)

1st place

Global Talent Competitiveness Index

1st place

Impact of AI publications per country

1st place

The highest number of AI companies per capita in the EU

2.53

AI companies per 1 million inhabitants

34.6

AI patents per 1 million inhabitants

500

AI companies

Zurich

is the main canton by number of AI companies

50

R&D centres, hubs, and nonprofits

37%

of Swiss AI patents filed are ranked as world-class

AI in Switzerland Landscape

Switzerland is home to many leading AI research institutes spread out over a manageable geographical area. This closely-knit network and a pragmatic collaboration between key research institutes and strong industrial players results in the highly efficient transfer of technology, which brings innovative products to the market quickly.

Why Switzerland?

The Swiss Federal Institutes of Technology in Zurich and Lausanne (ETH Zurich and EPFL) rank among the world's best technological universities.

The Swiss legal system, being both stable and liberal, offers significant protection for intellectual property and a high degree of investment security for R&D activities.

Switzerland is home to top global pharmaceutical players. Basel's thriving ecosystem of big pharma and life sciences is driving global AI developments in healthcare.

Switzerland has a high level of innovation output. In proportion to its population, Switzerland boasts the third highest number of AI patents in an international comparison.



According to Global Innovation Index, the country is most effective in transforming innovation investments into results.

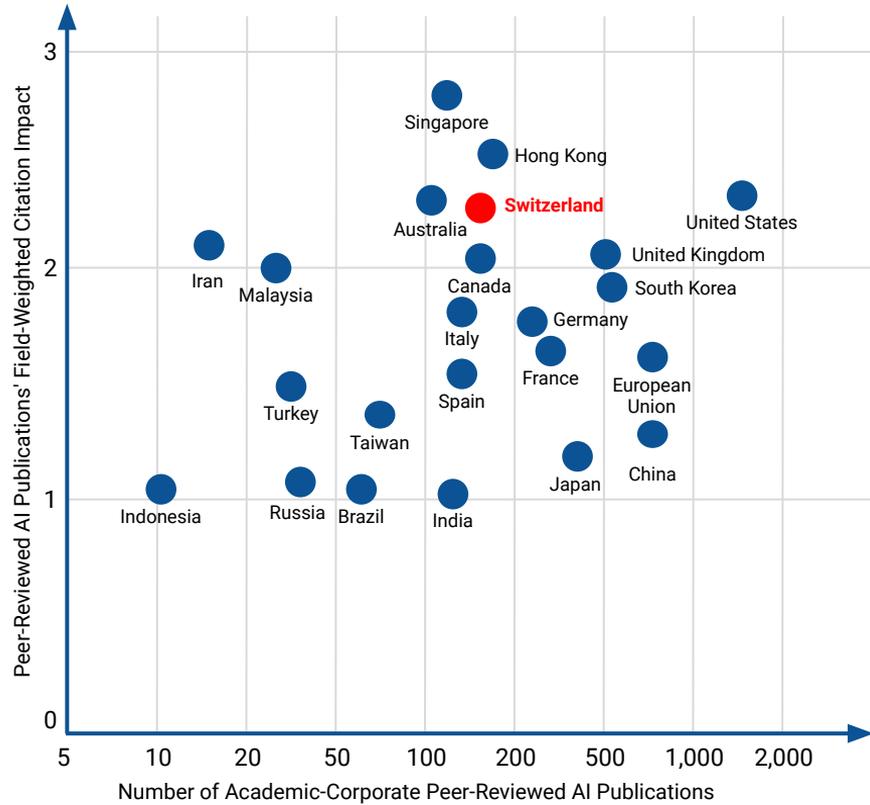
Switzerland provides a regulatory framework that is innovation-friendly and progressive. Swiss laws are formulated in a technology-neutral way.

Switzerland has very strong industry clusters in pharma, finance, and health tech, which are fueling the AI ecosystem significantly.

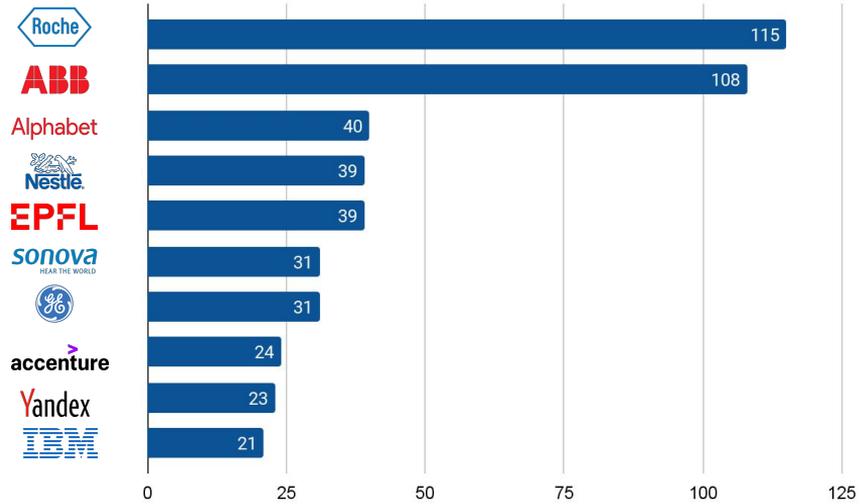
Switzerland borders large markets like France, Germany, and Italy, which gives companies easy access to reach potential customers.

State of AI Technology in Switzerland

Countries' Comparison Matrix



Top 10 Companies in terms of AI Patents in Switzerland

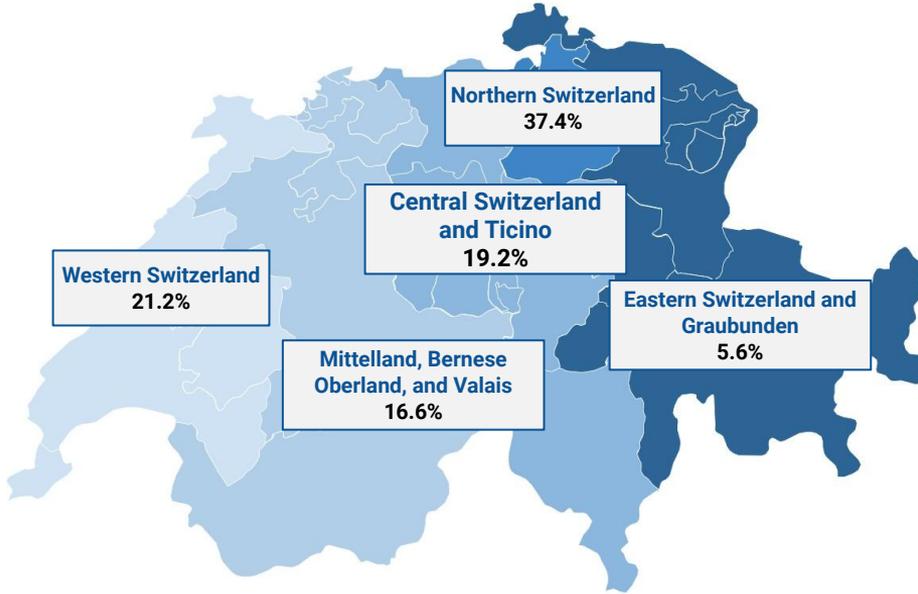


Top AI Research Institutions in Switzerland

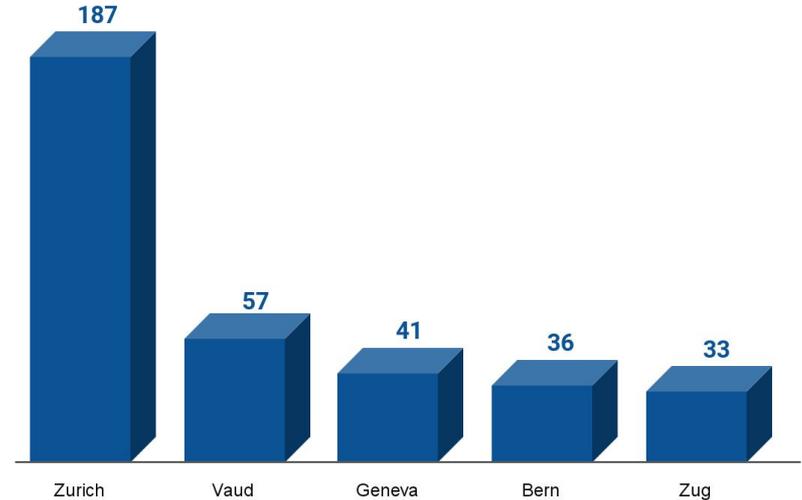


Distribution of AI Companies by Swiss Regions

Distribution of AI Companies by Swiss Regions, Q4 2021



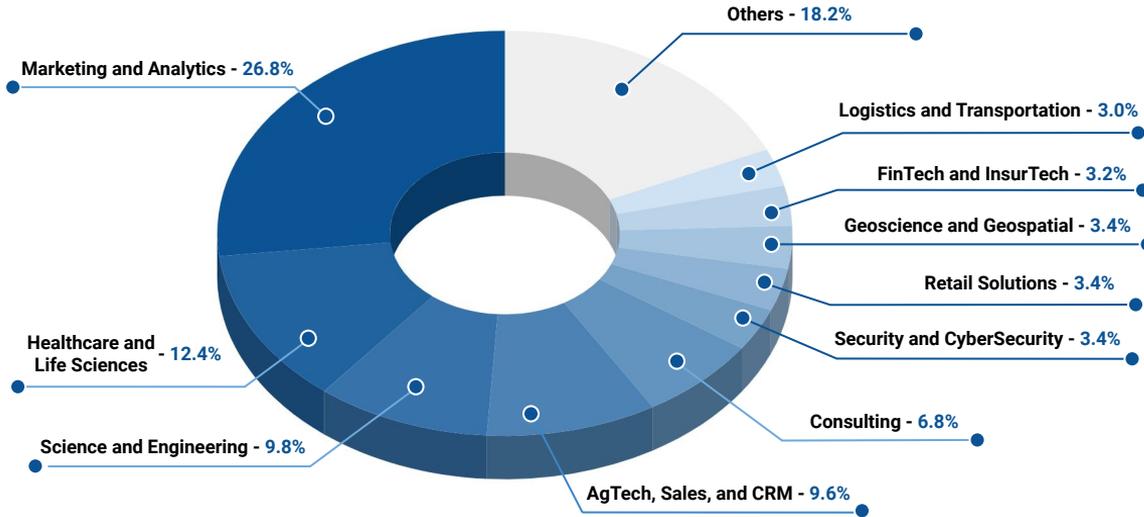
Top 5 Cantons by Number of AI Companies, Q4 2021



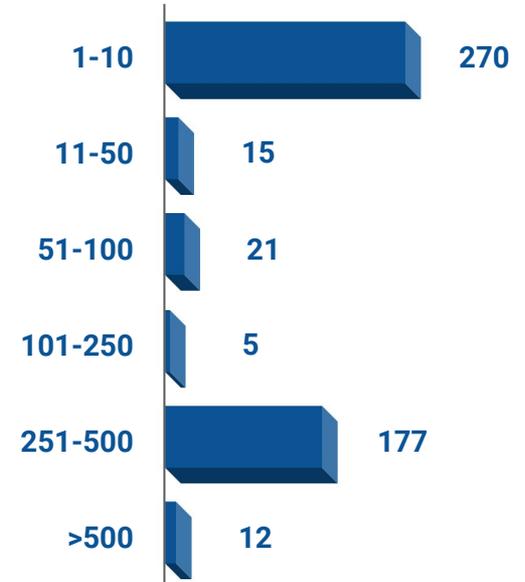
Switzerland is divided into 26 cantons that can be distributed by five big regions. The biggest region by AI companies is Northern Switzerland – more than 37% of organisations are located there. This region consists of only the canton of Zurich. The second biggest region of AI companies (with more than 21% of AI companies) is Western Switzerland that includes such cantons as Vaud, Geneva, Neuchatel, Fribourg, and Jura.

500 AI Companies by Categories and Number of Employees

AI Companies by Categories

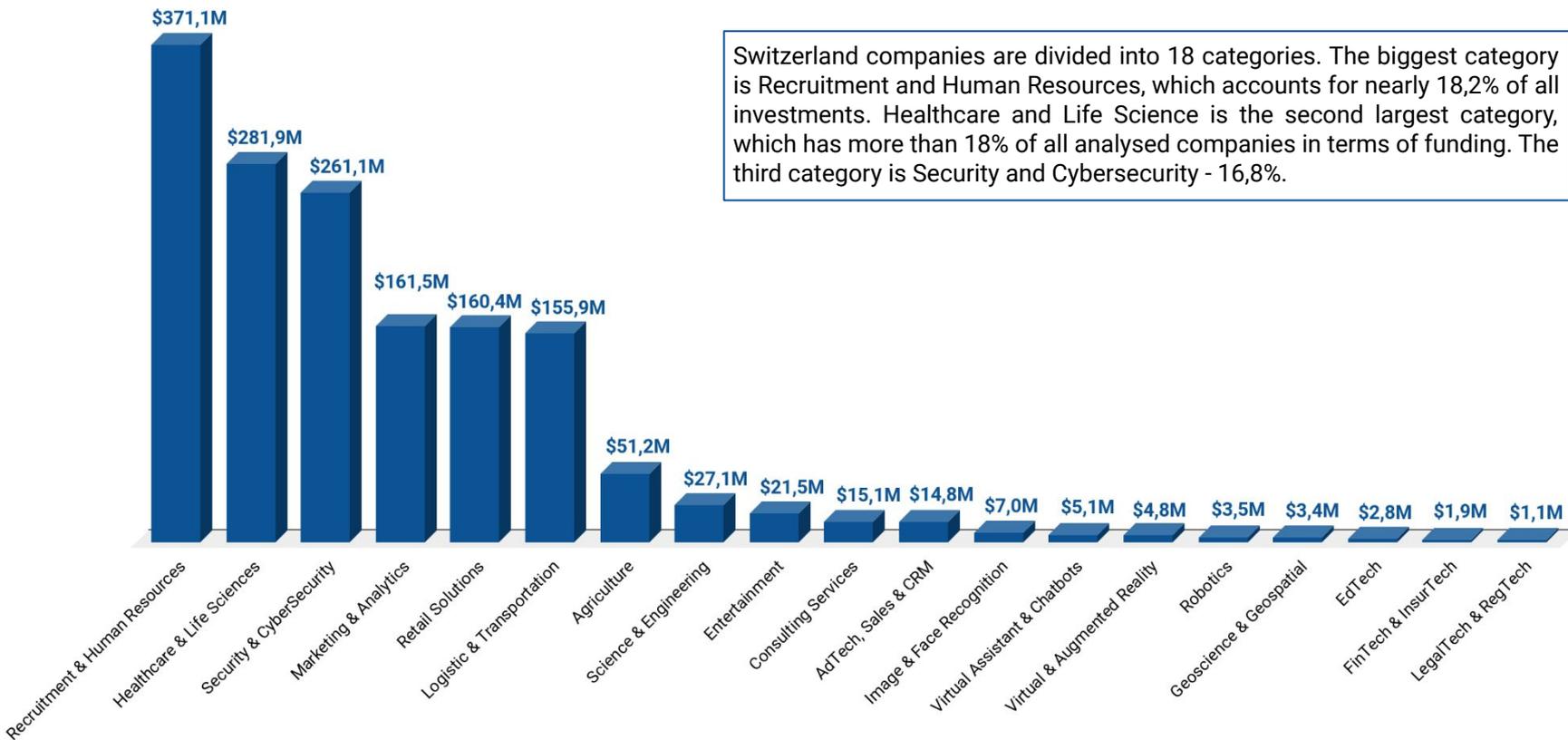


AI Companies by Number of Employees



Almost half of AI companies are involved in three spheres: Marketing and Analytics, Healthcare and Life Sciences, Science and Engineering. Marketing and Analytics is the biggest category, which accounts for 26.8% of AI companies. Some 54% of AI companies employ 1-10 people and 35.4% employ 251-500 people.

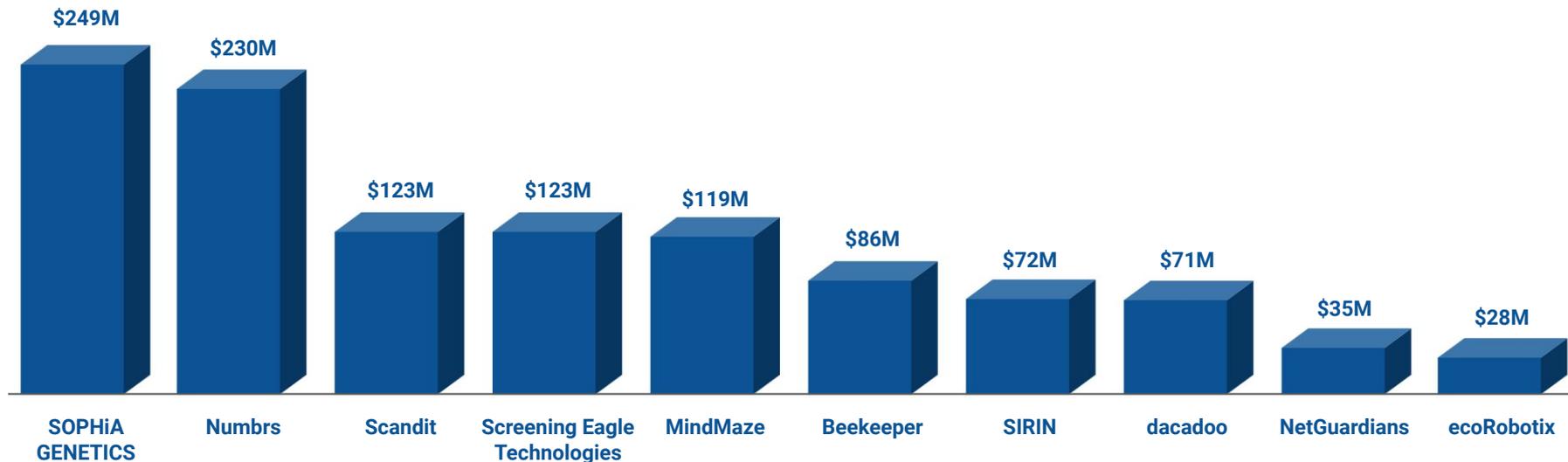
Top 100 Swiss Companies' Funding by Categories



Switzerland companies are divided into 18 categories. The biggest category is Recruitment and Human Resources, which accounts for nearly 18,2% of all investments. Healthcare and Life Science is the second largest category, which has more than 18% of all analysed companies in terms of funding. The third category is Security and Cybersecurity - 16,8%.

Top-10 Swiss AI Companies by Funding

Top-10 Swiss AI Companies by Funding, Q4 2021



Swiss AI companies are attracting more and more investments today. Switzerland is a country that has all the necessary infrastructure for market players to perform. Upon analysis of Swiss AI companies it is possible to notice key tendencies: relatively high gross profit margin rates led by double-digit revenue growth, market capitalization growth even if financial performance is not satisfactory, willingness to invest in Swiss AI companies from a large number of countries and investors.

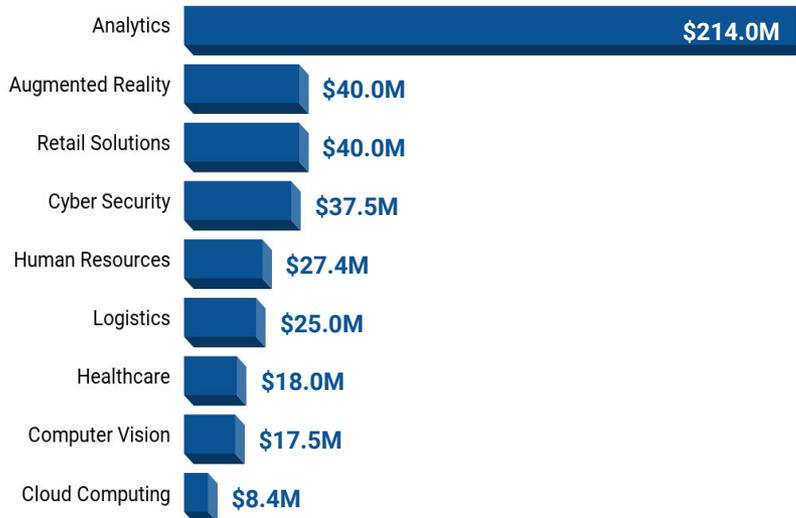
Top Investment Deals and Categories

Top 10 Deals in 2020-2021 Q3 by Investments



Top 10 Deals Regional Distribution

Top 10 Swiss Companies' Investment by Categories



The increasing volume and complexity of data are driving the commercial adoption of AI in analytics tools in various industries. That is the reason why examination analytics category is one the quickest in developing and growth.

Selected AI Hubs



SGAICO brings together researchers, practitioners, and other parties interested in the subjects of AI and cognitive science. SGAICO pursues the goal of promoting intelligent technologies for innovation in the society. It provides a platform for exchange on Artificial Intelligence and Cognitive Science between industry and universities.



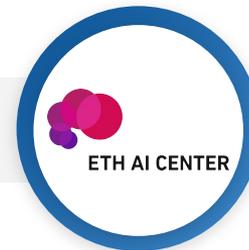
SwissCognitive, World-Leading AI Network is a cross-industry global community of leaders and AI experts openly & transparently exchanging about the development and applications of AI. While focusing on hands-on use cases, research, development, challenges and opportunities these exchanges have two major aims.



The CognitiveValley Foundation is striving to create a future where Switzerland is recognized as a trustworthy global center and world leader for artificial intelligence. The CognitiveValley Foundation acts as a financial enabler, supporter, networker, and promotor for the Swiss AI ecosystem.



The vision of ai-zurich is actually quite simple: they want to bring exciting people together with exciting content and create great moments, both online and offline. The company would like to share this fascination and enthusiasm with their users, customers and partners and immerse themselves in the AI universe together with them.



As ETH's central hub for artificial intelligence, we bring together researchers of AI foundations, applications, and implications across all departments. We foster research excellence, industry innovation, and AI entrepreneurship to promote trustworthy, accessible, and inclusive AI systems.

AiCon - Amazing AI Innovations

AiCon

December 1-2
2021

AiCon, the festival for AI innovations, will be held on 1 and 2 December 2021. At the attractive networking dinner on **1 December 2021**, the Canton of Schwyz and its partners will welcome 60 guests from politics, business, research and society and present the Global AI Award for special achievements in the field of AI for the first time. The conference day on **2 December 2021** will enable the 300 visitors to benefit from presentations and breakout sessions dedicated to the breakthroughs in AI and their practical implications for the Swiss economy.

For the first time, the **Swiss AI Index** will offer a systematic approach to assessing the use of AI technology by companies in Switzerland. It will demonstrate how established companies, start-ups and research institutions are dealing with the new technology and illustrate the areas in which AI is already being used successfully.

Another programme highlight will be the presentation of the **Swiss AI Award** by AI pioneer Pascal Kaufmann. Following the successful launch last year, prizes will again be awarded for the most promising and innovative Swiss AI start-ups. The biggest start-up and tech awards have come together to present the Switzerland-wide AI Award. The Global AI Award will honour a personality who has been instrumental in shaping the field of AI on a global level over the past year and contributed to the understanding of the essence of the subject matter.



Gold Partners:



furrerhugi.



œrlikon

'AiCon brings together the most important AI players in Switzerland. It pools the forces of this highly important technology of the future and shows where this exciting journey will lead.' - Guy Parmelin, Federal Councillor, Head of the Department of Economic Affairs, Education and Research.

Digital Switzerland Strategy

The “Digital Switzerland” strategy **provides the guidelines for government action** and indicates where and how the authorities, academia, the private sector, civil society, and politics must work together to shape the transformation process for the benefit of everyone in Switzerland.

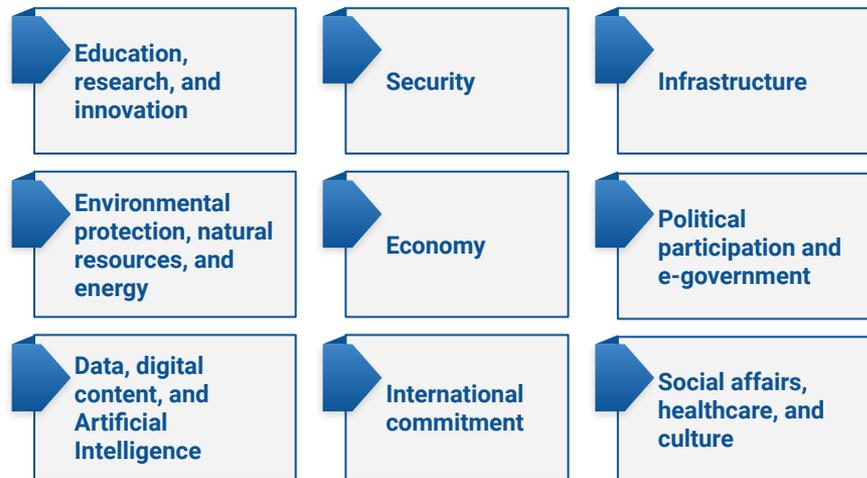
The Action Plan is an integral part of the Digital Switzerland Strategy. It outlines the measures that the Federal Administration envisages in order to make a tangible contribution to achieving the Digital Switzerland strategy's goals.

The strategy has a Digital Switzerland Coordination Group and an Information Society Business Office. The interdepartmental Digital Switzerland Coordination Group coordinates the implementation work and the networking of Federal Administration stakeholders, with increased interdisciplinary cooperation within the Federal Administration.

In addition, in July 2017, the **Federal Office of Communications launched the [digitaldialog.swiss website](https://www.digitaldialog.swiss)** to encourage a joint commitment to the strategy. The aim is to open a public debate about questions such as ethics in AI and to bring society closer together to collaborate on this topic.

The Action Plan includes selected measures by third parties outside the federal administration, which make a contribution to achieving the strategy's goals. The “Digital Switzerland” strategy defines **41 goals** in important digital areas, divided into **nine fields of action**.

Action Fields of the Digital Switzerland Strategy



AI Usage in Switzerland During COVID-19

Healthcare was one of the main industries which was impacted by COVID-19 and required the involvement of technologies. From the beginning of pandemic, the first vaccines against the coronavirus were being tested in less than 3 months. As of October 2021, some 60 potential vaccines are in clinical development. This paradigm shift in vaccine development was possible thanks ground-breaking technologies like Artificial Intelligence.

AI and New Vaccines

Many of the new COVID-19 vaccines owe their rapid development to AI. **AI and international scientific collaboration** – including from Switzerland – have been instrumental in rapidly advancing research on the COVID, especially in the field of predicting the protein structures of SARS-CoV-2. Proteins provide a lot of information about the cells of living beings and play a central role in the development of effective vaccines.

AI and Swiss TPH

The Swiss Tropical and Public Health Institute (Swiss TPH) has a web page related to **COVID-19 Activities at Swiss TPH** and encompassing the use of AI and Machine Learning. The Swiss TPH is an associated institute of the University of Basel and, as a public organisation, is partially supported by the Swiss Federal Council and the Canton of Basel-Stadt.

Swiss TPH Initiatives

AI and Vaccine Distribution

In the field of **vaccine strategy**, AI and blockchain technology are seen as important tools to model different scenarios and predict demand for vaccines, manage the supply chain, and ensure they are distributed fairly. AI could also prove to be a valuable aid in identifying patients at risk of experiencing side effects more quickly after getting vaccinated.

CORESMA

Application of the epidemic surveillance and response analysis system combining e-health, serologics, modelling, AI, and implementation research.

MistraL

Mitigation strategies for communities with COVID-19 transmission in Lesotho using AI on chest X-rays and novel rapid diagnostic tests (MistraL).

SORMAS

Providing real-time clinical data to improve risk assessment and response, deploying an established mHealth Surveillance Outbreak Response Management and Analysis System.

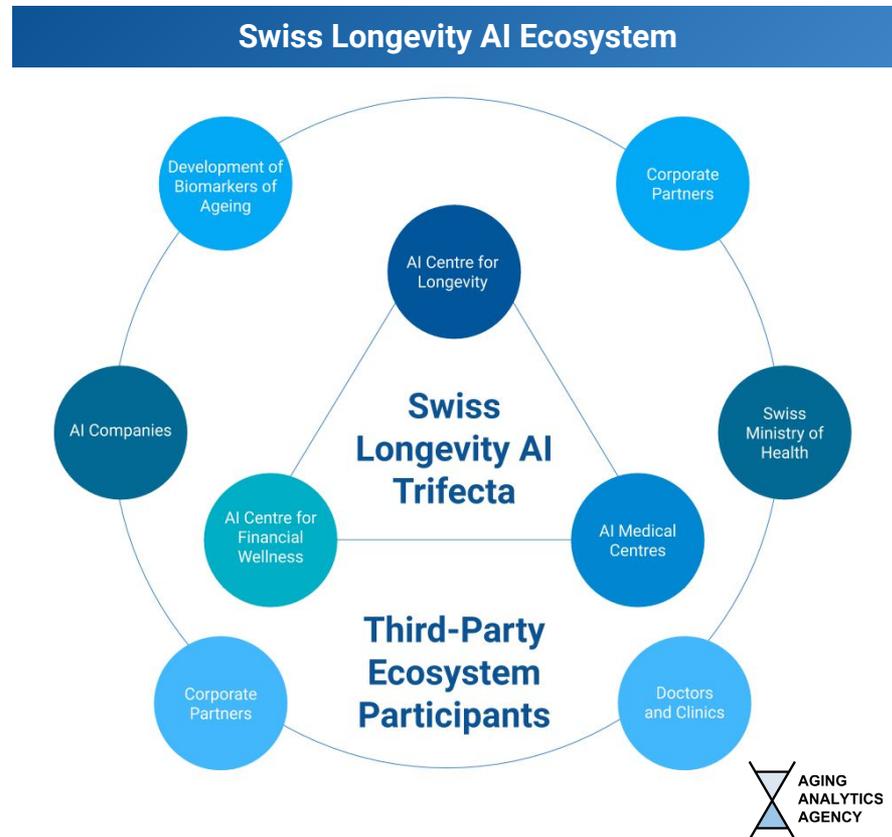
Swiss Longevity AI Ecosystem

Swiss Longevity AI Ecosystem comprises three main elements – AI Centre for Longevity, AI Medical Centres, AI Centre for Financial Wellness.

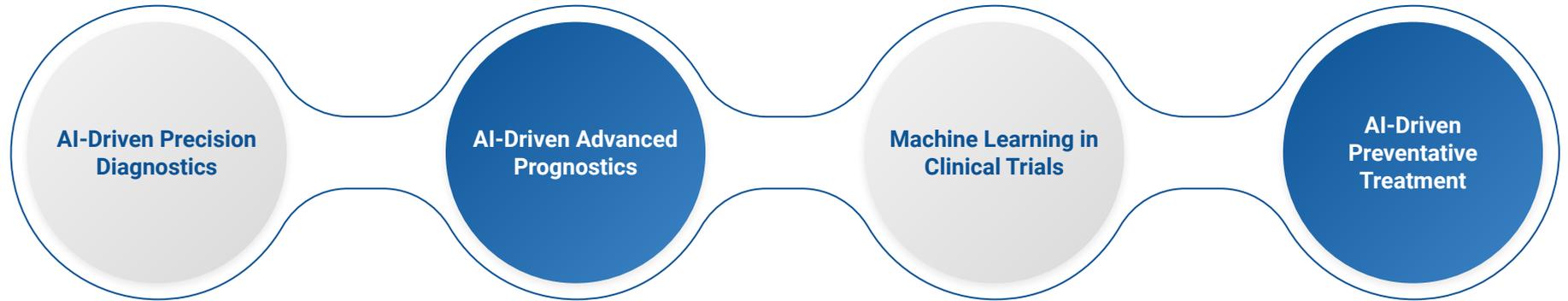
A major component of Swiss AI for Longevity Ecosystem, besides cutting-edge Longevity R&D and Biomarkers of Longevity research and clinical translation, is a **concept of developing AI-enabled technologies for extended wealthspan:** financial wellness over prolonged healthspans.

Focus on Longevity is the main focus of Swiss financial experts and insurers due to the increase of average life expectancy in Switzerland and a societal appreciation for preventative health and healthy ageing. Many institutional investors seek opportunities to contribute to the development of the Longevity Industry in Switzerland by investing in AgeTech, Longevity Fintech, AI Biomedical companies, and start-ups.

Main goal of the Swiss Longevity AI Ecosystem **is to develop strong economic connections between international investors and local market players.**



AI Technologies Trending in Switzerland



AI-based symptom-and-cure checker uses algorithms to diagnose and treat illness. For instance, chatbot or online consultant listens to a patient's symptoms and health concerns, then guides the patient to the correct care based on its diagnosis.

The deployment of AI can enable significant efficiency gains in Advanced Prognostics via optimisation of time engaged in the prognosis process. AI can predict and diagnose disease at a faster rate than most medical professionals.

Machine Learning brings many opportunities to the health system by means of data-driven medicine that can improve disease prevention, prediction, and monitoring. Clinical trials benefit from Machine Learning in terms of time and efficiency of drugs candidates development.

The use of AI and Big Data make healthcare software, personalised and accurate on a case-by-case basis. AI-based preventive treatment aimed to detect potential life-threatening illnesses and avoid such conditions.

About SwissCognitive, World-Leading AI Network



500k

At Glance

100

Over ½ million followers in the global cross-industry AI Ecosystem

50

Reaching into 100 countries on all continents
Connecting over 50 industry sectors
Connecting over 4000 companies

4000

2016

From Foundation to Today

100

SwissCognitive was founded in 2016 by AI thought-leader Dalith Steiger and digital transformation strategist, Andy Fitze. The organization grew out from Switzerland into a global community of cross-industry experts, leaders, and an AI community of over ½ million on social media, involving over 30 industry sectors in 100 countries globally. Since 2016, besides regional Think Tanks, workshops and boardroom discussions, from March 2020 SwissCognitive brought over 300 AI leaders & experts into discussion, carefully followed by an audience of over 24'000.

300

24k

World-Leading

Brief Overview

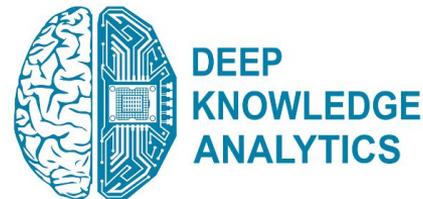
SwissCognitive, World-Leading AI Network is a highly respected cross-industry global community of business leaders and AI experts transparently exchanging about the development & implementation of AI. While spotlighting hands-on use cases, challenges, successes, and opportunities – both in the boardroom and on global stages, driven by turning AI into a key economy-booster.

Committed to Unleashing AI in Business



About Deep Knowledge Analytics

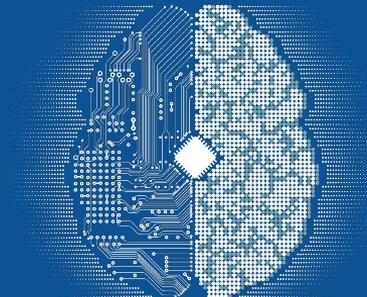
[Deep Knowledge Analytics](#) is a DeepTech focused agency producing advanced analytics on DeepTech and frontier-technology industries using sophisticated multidimensional frameworks and algorithmic methods that combine hundreds of specially-designed and specifically-weighted metrics and parameters to deliver sophisticated market intelligence, pragmatic forecasting, and tangible industry benchmarking.



It is an analytical subsidiary of [Deep Knowledge Group](#), an international consortium of commercial and nonprofit organisations focused on the synergetic convergence of DeepTech and Frontier Technologies (AI, Longevity, MedTech, FinTech, GovTech), applying progressive data-driven Invest-Tech solutions with a long-term strategic focus on AI in Healthcare, Longevity, and Precision Health, and aiming to achieve positive impact through the support of progressive technologies for the benefit of humanity via scientific research, investment, entrepreneurship, analytics, and philanthropy.

Deep Knowledge Analytics specialises in conducting special case studies and producing advanced industry analytical reports on the topics of Artificial Intelligence, GovTech, Blockchain, FinTech, and InvestTech. It has produced a number of comprehensive analytical reports in coordination with the [UK All-Parties Parliamentary Groups on AI](#) and on [Blockchain](#), including its AI in UK Landscape Overview 2018 and Blockchain in UK Landscape Overview 2018, unprecedented in their scope and length, and collectively more than 3,000 pages. The company has also recently deployed advanced interactive online IT-platforms that feature dynamic mindmaps and filterable, customisable databases updated with new industry developments in real-time.

Deep Knowledge Analytics will continue to expand the scope, depth, and topics covered by its analytical reports on frontier technology-driven industries, with the aim to develop the next iterations of their analytical frameworks with a wider breadth and depth of metrics and overall analytics, to apply efficient methods to cross-sector analysis between different industries, and to apply both existing and new analytical frameworks to the design of the new InvestTech solutions (novel investment technologies and strategies relevant for the third decade of the 21st century), which is the only relevant way to implement the long-term strategic vision of Deep Knowledge Ventures.



Link to the Report: www.dka.global/ai-in-switzerland-2021-q4

E-mail: info@dka.global

Website: www.dka.global

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