



# InsurTech in Switzerland

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## Landscape Overview

November, 2021

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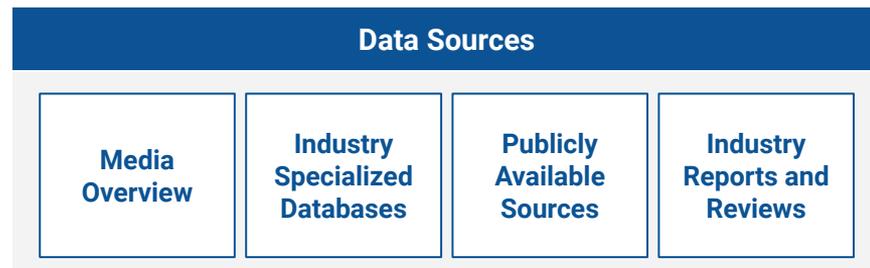
## Introduction

**This analytical case study** reveals **key developments in the Swiss InsurTech Industry**. This is accomplished by highlighting major Swiss players in the field of InsurTech, covering technological trends and advances, analyzing existing and projected governmental policies, and providing an overview of underlying economic and financial data.

By utilizing a variety of infographic mindmaps, the report first enables to quickly identify its core analytical findings and conclusions. Its subsequent chapters then introduce readers to **specific areas of the InsurTech industry in Switzerland**.

This analytical case study presents an unified industry framework based on a vast industry database: **50+ companies, 100+ investors, 7 non-government organizations** that operate, interact with, or are involved in any other way in the InsurTech Industry. The key purpose of this report is to support all industry entities and stakeholders in strategic decision-making to gain maximum value.

# Approach of the Report



Containing a comprehensive overview of the **InsurTech Industry in Switzerland**, the report relies on various research methods and analytics techniques. The report was compiled to give a detailed systematic description of the leading companies, investors, non-government organizations related to the InsurTech industry located in Switzerland. **Switzerland is a InsurTech Hub** with one of the largest share of gross value added produced by insurance sector, that **constitute more than 40% of the financial sector**. The combination of developed and well-established classic insurance sector and innovative technology solutions creates prominent prospects of development.

# Executive Summary

This analytical case study was compiled to give a detailed systematic description of the growing potential of **Swiss InsurTech Industry** highlighting its recent trend and upcoming perspectives,, predicting the development of the relevant market, and determining the degree of technology relevance at the current time.

During the last years, **the global InsurTech Market Size reached \$9.4B in 2020** and is projected to grow an average **CAGR of 32.6%** from 2020 to 2030 to reach **\$159B**. Switzerland is the top country by the size of Insurance market relative to the whole economy, experience same uprising trends and increasing demand on the easy insurance solutions.

**COVID-19 had in 2020 a moderate impact on the investment of insurers in InsurTechs.** The insurance industry maintained its volume of investment in InsurTechs in 2020 compared to the previous year.

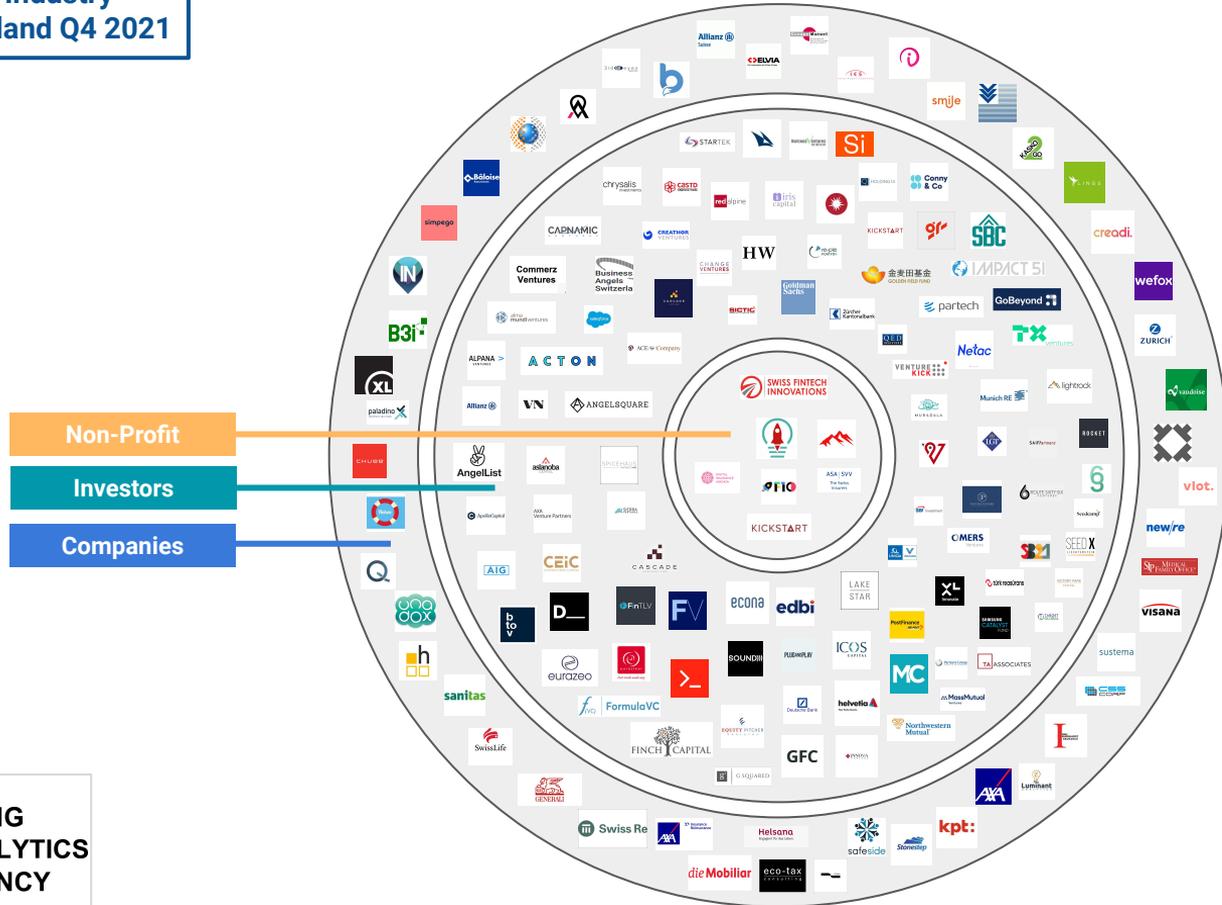
**Insurers that write more business in the least complicated lines of insurance invest more in insurance technology.** More lucrative insurers invest in loss adjustment technology, whereas less profitable insurers invest in underwriting technology. Finally, insurers with higher underwriting leverage and losses invest more in loss adjustment expense technologies. Nevertheless, there is still a large majority of insurers that did not invest in InsurTechs and stay conservative for the last 10 years. Only around 38% of insurers have invested in the InsurTech since 2010. On the other hand, **reinsurers are especially active in the InsurTech fundings.**

## Swiss InsurTech Ecosystem 2021

50+	Companies	100	Investors
7	Non-Profit Organisations	8	Categories by Product
\$9.4B	Global Market Size in 2020	\$159B	Global Projected Market Size in 2030
32.6%	Global CAGR	\$7.4B	Global Funding Amount
20	Influencers	300+	Global Number of Deals

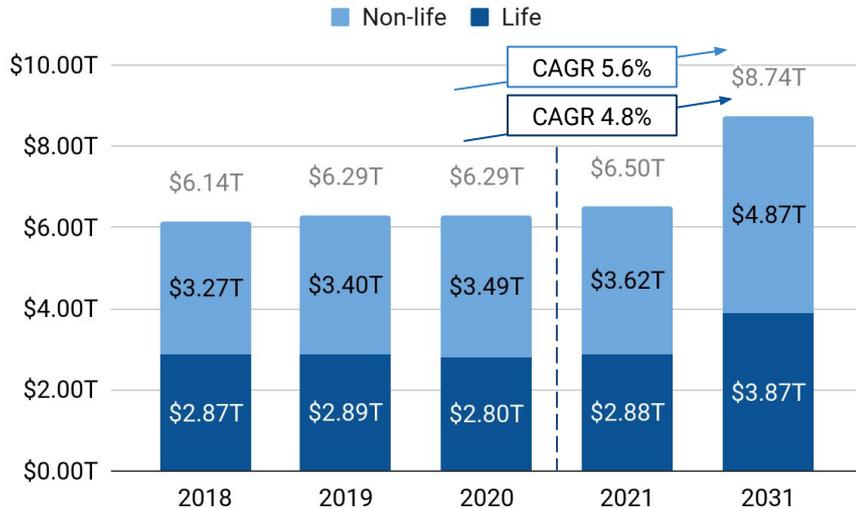
**InsurTech Industry  
in Switzerland Q4 2021**

**Companies – 50+  
Investors – 100  
Non-Profit – 7**



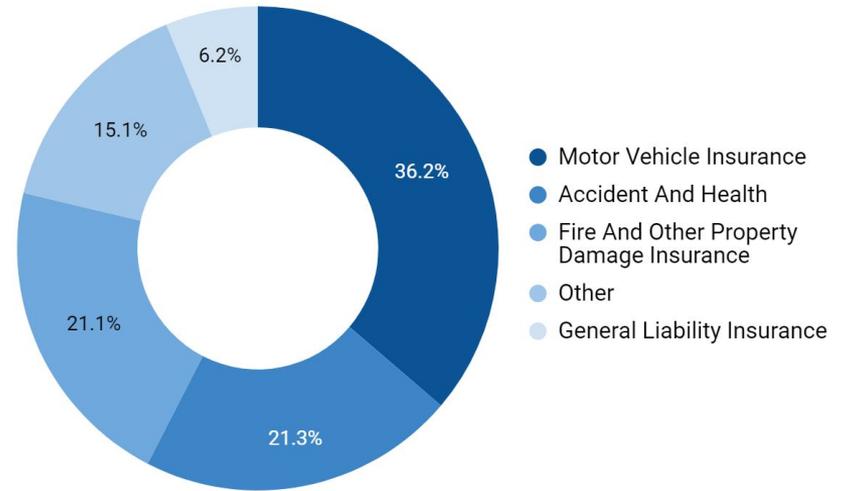
# Global Insurance Industry

## World Life And Non-life Insurance Direct Premiums Written, USD



Source: Swiss Re

## Average Breakdown of Non-life Gross Insurance Premiums, 2019



Source: OECD

Globally, **Non-life insurers** write **56% of the gross premiums**, which constituted \$3.49T in 2020. **Life insurance** accounted for around **\$2.8T**. Despite negative growth rate of premiums written in 2020, both **Life and Non-life** insurance sectors are projected to grow with **CAGR 2021-2031 4.8% and 5.6%** respectively, as insurance market is estimated to rebound faster from the pandemic than the global financial crisis.

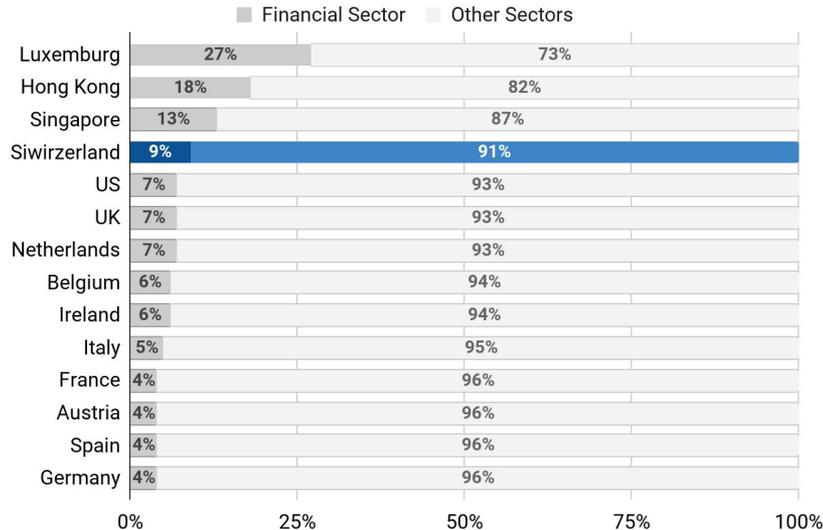
On the 1st place by written premiums in the Non-life insurance are **Motor Vehicles**, accounted for **36.2% of gross premiums** in 2019, and followed by **Health Insurance with 21.3%** of gross premiums.

Source: National financial supervisory authorities, insurance associations and statistical offices, Thomson Reuters, Allianz Research

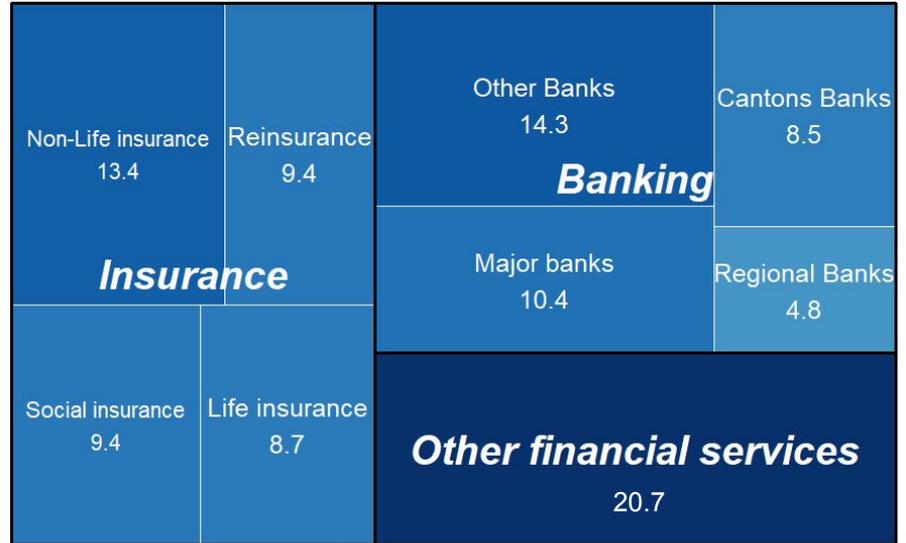
# Insurance Industry in Switzerland

# Importance of Insurance Industry in Swiss Economy

Finance Sector Share of Gross Value Added in Total Economy



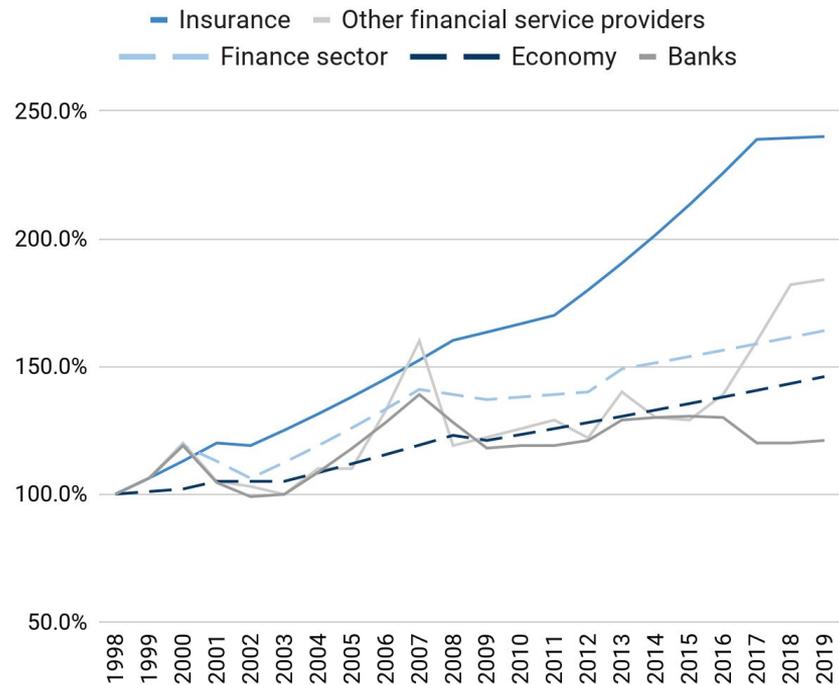
Share of Value Added by Subsectors of Swiss Finance Sector, %



Switzerland is known for its **substantial and diverse finance sector**. In compare with other countries, Swiss finance sector takes one of the greatest share in the country's economy. Gross Value Added (GVA= GDP + Subsidies on products – Taxes on products) of **finance sector in Switzerland** as share of total economy is **greater than in the US and in the UK**. **Banks and Insurance** companies have **almost equal share of GVA** in Swiss economy. Both subsectors define Swiss finance system.

# Insurance as Fast Growing Sector of Swiss Economy

Gross Value Added Dynamics of the Financial Sector, 1998=100%



Source: BAK Economics

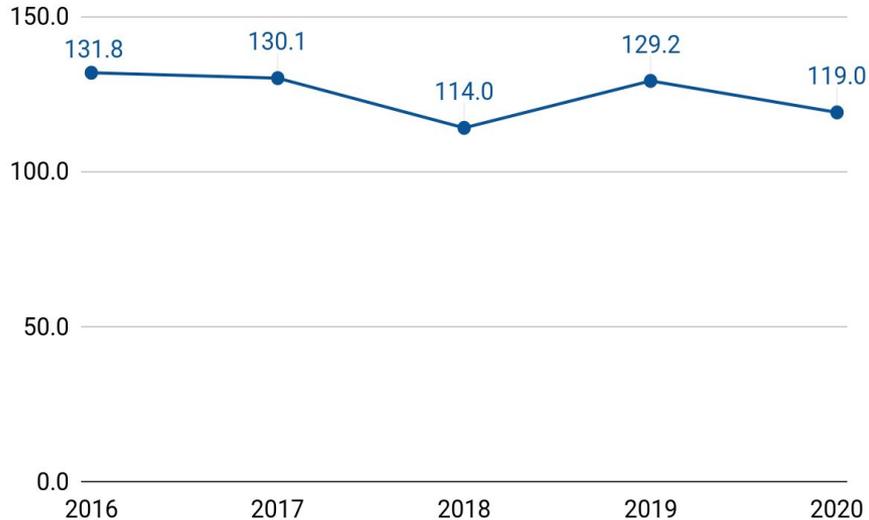
Since 1998 the Swiss financial sector has grown overall faster than the overall economy. The growth is measured by Gross value added (GVA), which is defined as output (at basic prices) minus intermediate consumption (at purchaser prices). The development of the three large sub-sectors - the banks, insurance companies and other financial service providers - fell very differently.

The insurance industry was less affected by the dot-com and financial crisis and proved to be a stable growth driver in the financial sector.

Banks' added value plummeted After The Dot-Com Crisis at the beginning of the 21st century and after The Great Financial Crisis at the end of the last decade. As a result of the structural change in recent years, it recorded an overall below-average value added growth and have not yet been able to reach the level before the last financial crisis.

# Swiss Insurance Market

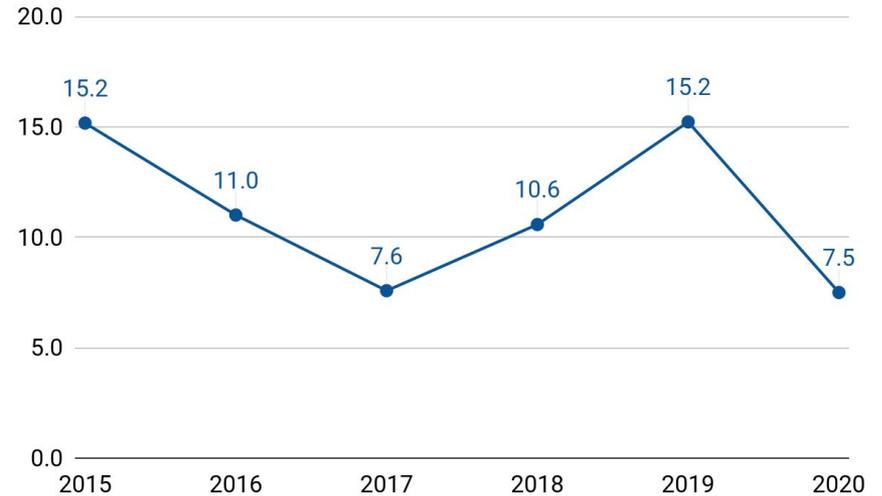
## Gross Premiums Written by Swiss Insurance Companies, in CHF B



**Gross Premiums Written** obtained by **Swiss Insurance Companies** were unstable during the 2016-2020 period and amounted to **CHF 119.0 B**. The amount of the Gross Premiums Written was declining between 2016 and 2020 years with a **CAGR of -2.5%**.

Source: FINMA

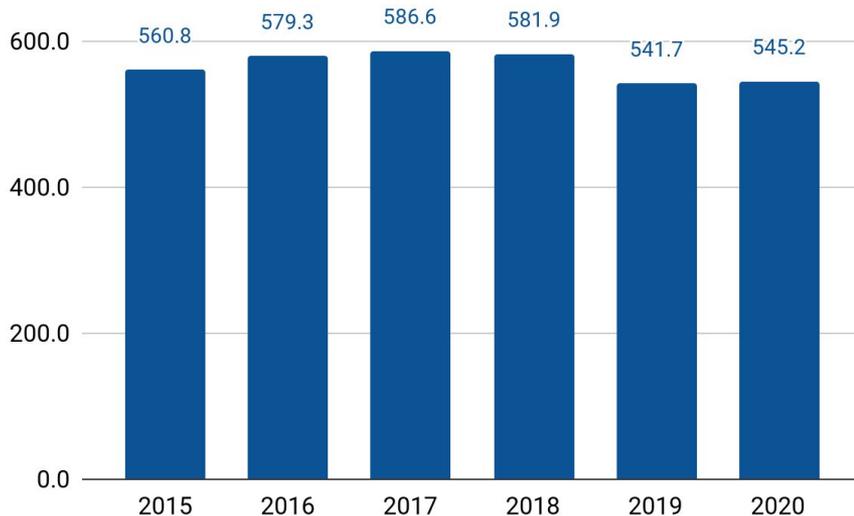
## Annual Profits of Swiss Insurance Companies, in CHF B



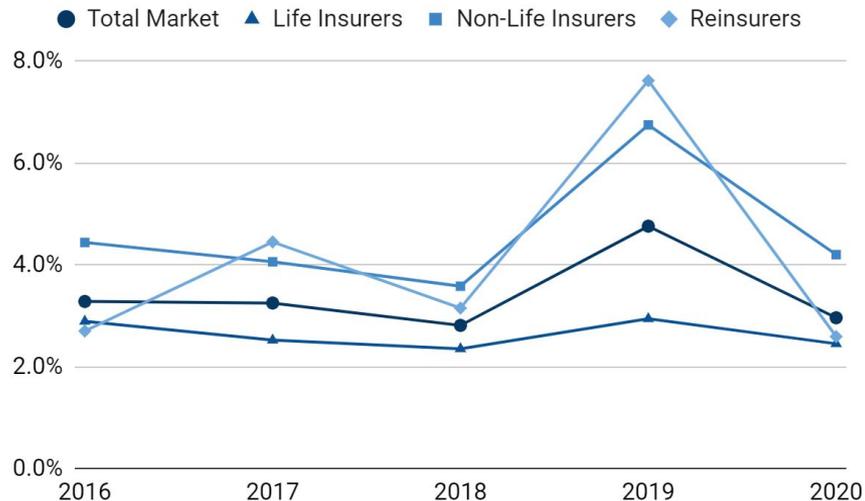
**Annual Profits** obtained by **Swiss Insurance Companies** were fluctuating during the 2016-2020 period and amounted to **CHF 7.5 B**. The amount of the Annual Profits was declining between 2016 and 2020 years with a **CAGR of -9.13%**.

# Swiss Insurance Market: Market Effectiveness

## Total Investments of Swiss Insurance Market, in CHF B



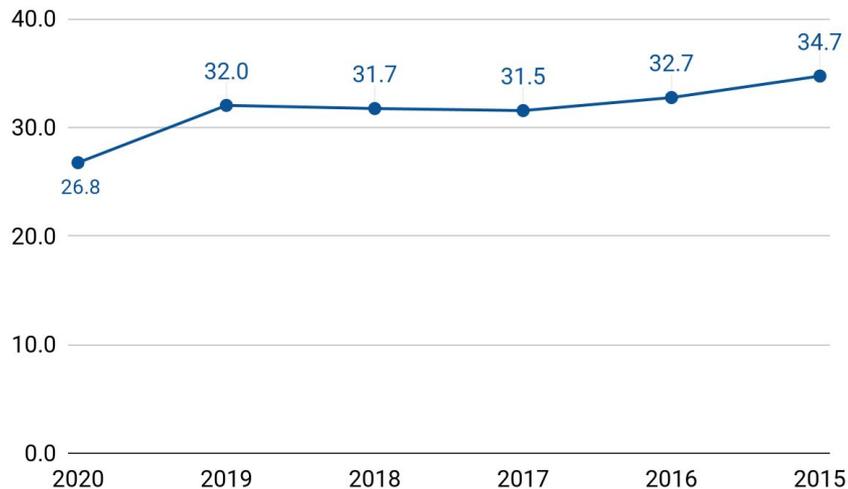
## Return on Investments (ROI) of Swiss Insurance Market, %



Despite slight decline in recent years, **total investment of Swiss Insurers remains steadily constant - around 560-580 B CHF**. Decline of invested amount by 6.9 p.p. in 2019 is probably caused by COVID-19 pandemic, and already in 2020 signs of recovery have been present. **ROI has been shown signs of decline already in 2018**, total market ROI decreased by 0.5 p.p. to 2.8%. However, **since then, it grew by 0.2 p.p. to 3.0% in 2020** despite the pandemic.

# Swiss Insurance Market: Life Insurance

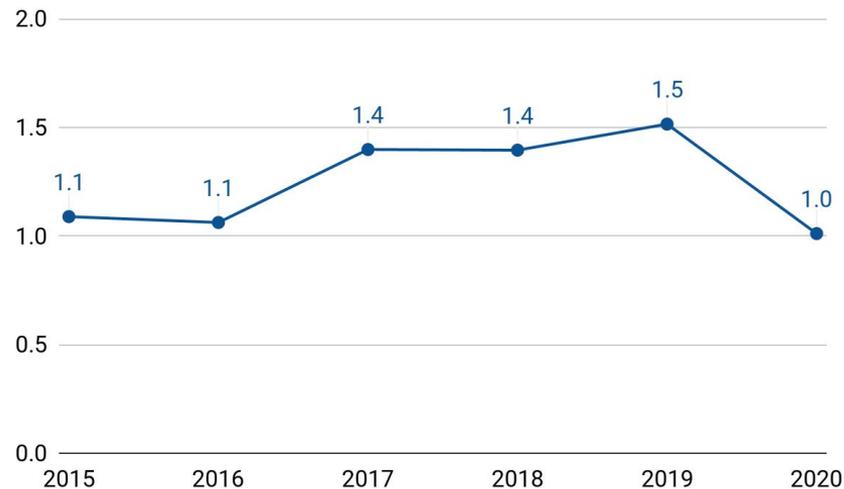
## Gross Premiums Written by Life Insurers, in CHF B



**Gross Premiums Written** obtained by **Swiss Life Insurance Companies** were unstable during the 2016-2020 period and amounted to **CHF 26.8 B**. The amount of the Gross Premiums Written was declining between 2016 and 2020 years with a **CAGR of -6.2%**.

Source: FINMA

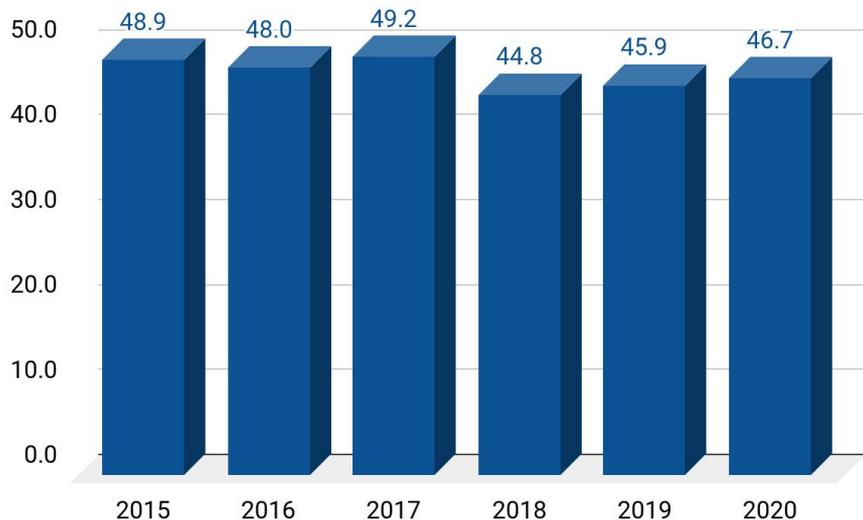
## Annual Profits of Life Insurers, in CHF B



**Annual Profits** obtained by **Swiss Life Insurance Companies** were fluctuating during the 2016-2020 period and amounted to **CHF 1.0 B**. The amount of the Annual Profits was declining between 2016 and 2020 years with a **CAGR of -2.3%**.

# Swiss Insurance Market: Non-life Insurance

## Gross Premiums Written by Non-life Insurers, in CHF B



**Gross Premiums Written** obtained by **Swiss Non-life Insurance Companies** were unstable during the 2016-2020 period and amounted to **CHF 48.9 B**. The amount of the Gross Premiums Written was growing between 2016 and 2020 years with a **CAGR of 1.2%**.

Source: FINMA

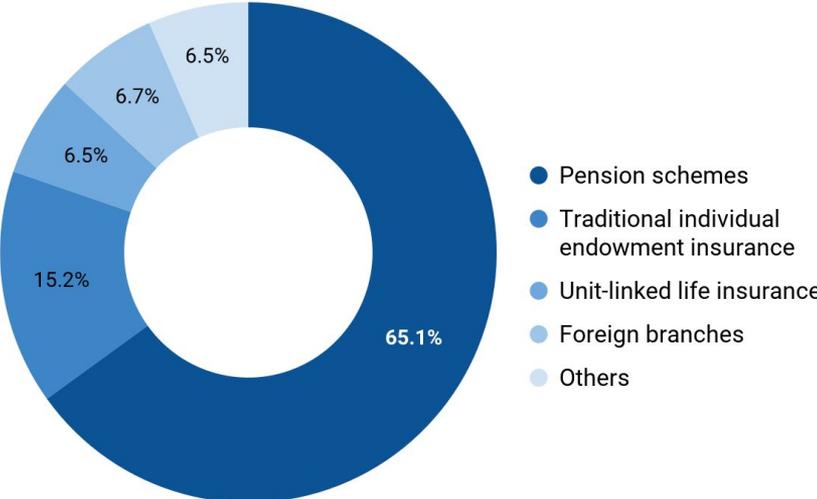
## Annual Profits of Non-life Insurers, in CHF B



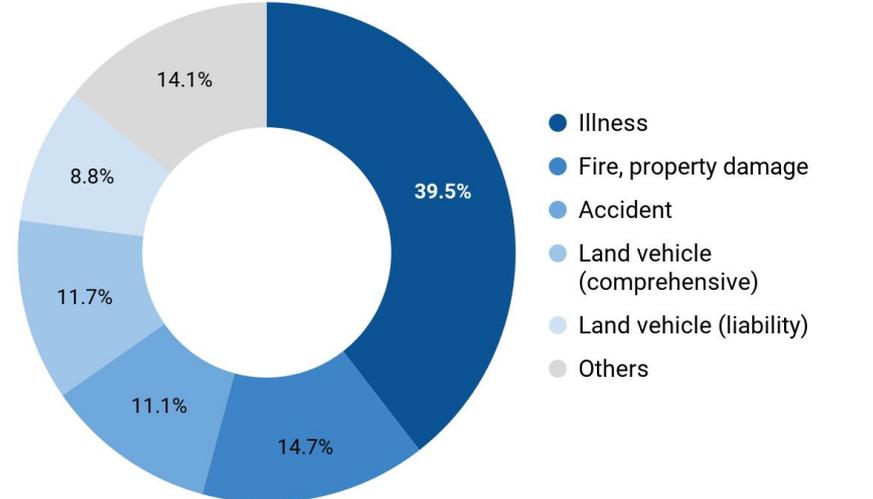
**Annual Profits** obtained by **Swiss Non-life Insurance Companies** were fluctuating during the 2016-2020 period and amounted to **CHF 5.6 B**. The amount of the Annual Profits was declining between 2016 and 2020 years with a **CAGR of (-2.9%)**.

# Swiss Insurance Market: Distribution by Products

Shares of Gross Written Premiums of Life Insurance Products



Shares of Gross Written Premiums of Non-life Insurance Products



The main product of Life Insurance is pension scheme - around 65.1% of gross written premiums are received from private pension savings. The other 15.2% is gross premium from individual endowment insurance that apart from life insurance also provide financial safety cushion. The third most popular life insurance product in the Switzerland is a unit linked insurance plan (6.5%) that is a multi-faceted product that offers both insurance coverage and investment exposure in equities or bonds.

Among Non-life insurance products most popular are additional health insurance (Illness - 39.5%), Property insurance (14.7%) and Land Vehicle insurance (22.8%)

Source: FINMA

# Global InsurTech Market



# Global InsurTech Market Size Projection

Global InsurTech Market Size Projection, \$B



Global InsurTech Market Size in 2020 was estimated at **\$9.4B** and projected to grow with **CAGR 32.7%** and reach **\$159B by 2030**.

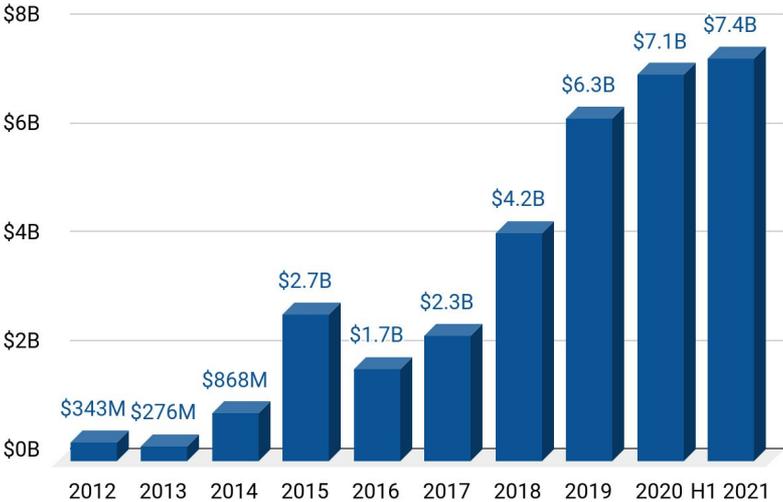
Insurers have been **pushed by the pandemic** to invest in and implement InsurTech, focusing on numerous areas including as client centricity, intelligent procedures, accelerating virtual interactions in sales and claims, and cutting costs in order to stay competitive.

InsurTech is **developing solutions** such as **customized insurance packages**, social insurance, and **dynamically pricing premiums** using new streams of data from Internet-enabled devices. **InsurTech** assists insurers in **collecting and analyzing consumer data** that may be used to target the proper client at an affordable price. InsurTech also aids in **creating better projections** of consumer demands, purchasing quantities, and decision-making and insurance planning through the use of machine learning, artificial intelligence, and cloud computing.

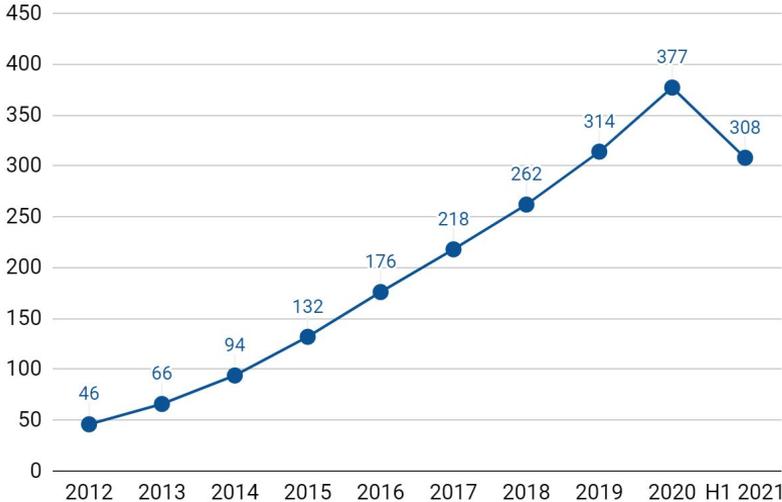
**Wide spreading and penetration of technologies** such as artificial intelligence, machine learning, blockchain and cloud computing enables real-time tracking & monitoring information regarding the activity of insured together with **growing demand** on the personalized and customized insurance will by **drivers for the fast growth** of InsurTech industry for the closest decade.

# Global InsurTech Investments

Global InsurTech Funding Totals, 2012 – H1 2021



Number of Investments Deals, 2012 – H1 2021

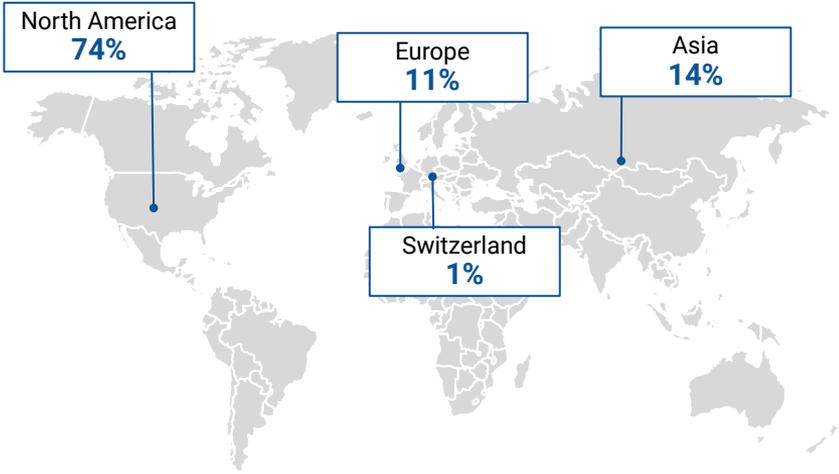


Global InsurTech funding reaches an emphatic record, the first half of 2021 already exceeds the full year of 2020 funding. In the first half of 2021, InsurTechs have raised \$7.4B – surpassing the \$7.1B raised for all of 2020 by more than \$300M. While overall business activity grew to 162 deals, up 11% compared with last quarter, a major driver of funding was the growth in mega-rounds (\$100 million-plus funding), up to 15 deals. In Q2 2021, was recorded the largest quarter-on-quarter funding increase since Q3 2018. Specifically, global InsurTech funding reached over \$4.8B, representing an 89% increase from Q1 2021 and a 210% increase compared with the same period last year.

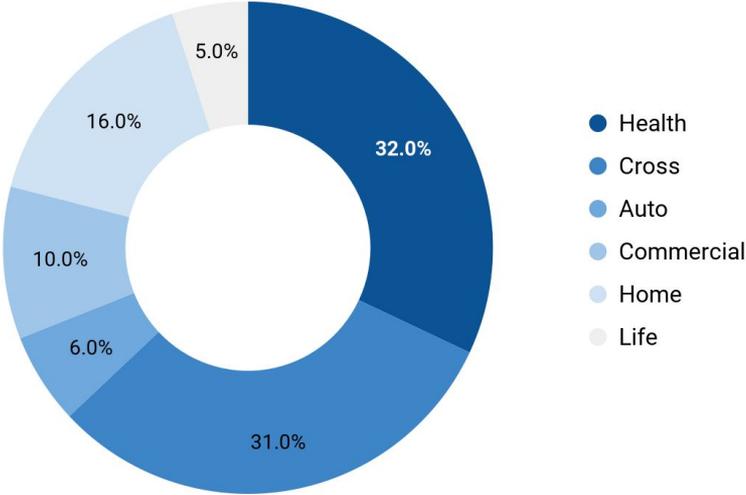
Source: Quarterly InsurTech Briefing Q2 2021, Willis Towers Watson

# Global InsurTech Investments

### Share of Investments in InsurTech Industry by Regions



### InsurTech Investments by Business Line in 2020



**North American region** accounts for around **74%** of total InsurTech majority of which was attracted by US companies. The second top region by amount invested is **Asia** with **14% of total investment**. **Switzerland** is accounted for **1% of overall investments**.

The most popular investment areas are **Health (32% of investments)** and **Cross (31%)**. Cross-liability coverage is a clause in a commercial insurance contract. It provides coverage for both parties if one makes a claim against the other, as if they have their own separate policies.

Source: InsurTech Global Outlook 2021

# InsureTech as Development of Insurance

## Insurance Groups Investments in InsurTech



## Technology used for InsurTech development

Mobile  
(for distribution)

Big Data  
(for underwriting)

ML  
(for profiling)

Source: InsurTech Global Outlook 2021, Neale, F. R., Drake, P. P., & Konstantopoulos, T. (2020)

**COVID-19** had a moderate influence on investment in InsurTechs in 2020. Total amount of investments remained roughly the same compared to the previous year.

**Insurers** that run more business in **the least complicated lines of insurance** invest more in InsurTech. More profitable insurers invest in loss adjustment technology, whereas **less profitable insurers invest in underwriting technology**. Finally, insurers with higher underwriting leverage and losses invest more in loss adjustment expense technologies. **Nevertheless**, there is still a large majority of insurers that did not invest in insurtechs and stay conservative for the last 10 years. **Only around 38% of insurers have invested** in the InsurTech since 2010.

On the other hand, **reinsurers are especially active** in the InsurTech fundings. **Swiss Re**, greatest Reinsurer in Switzerland and one of the biggest players in the world, even created **Swiss Re InsurTech Accelerator in Bangalore, India**.

# InsurTech in Switzerland

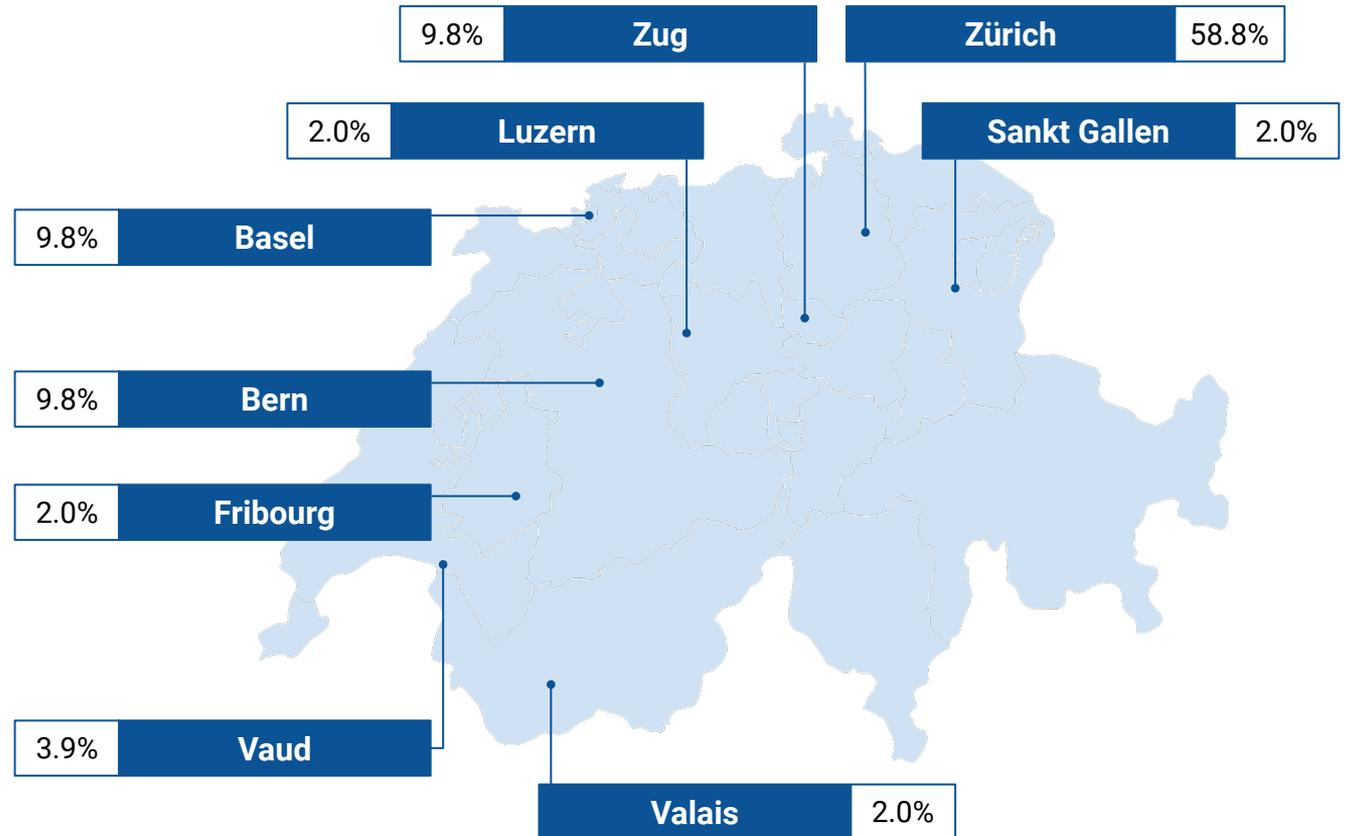


# InsurTech Companies in Switzerland

Most of the InsurTech companies in Switzerland are concentrated in the business centre of the country - **Zürich (city) and its area**. Around **59%** of the companies are located in Zürich canton.

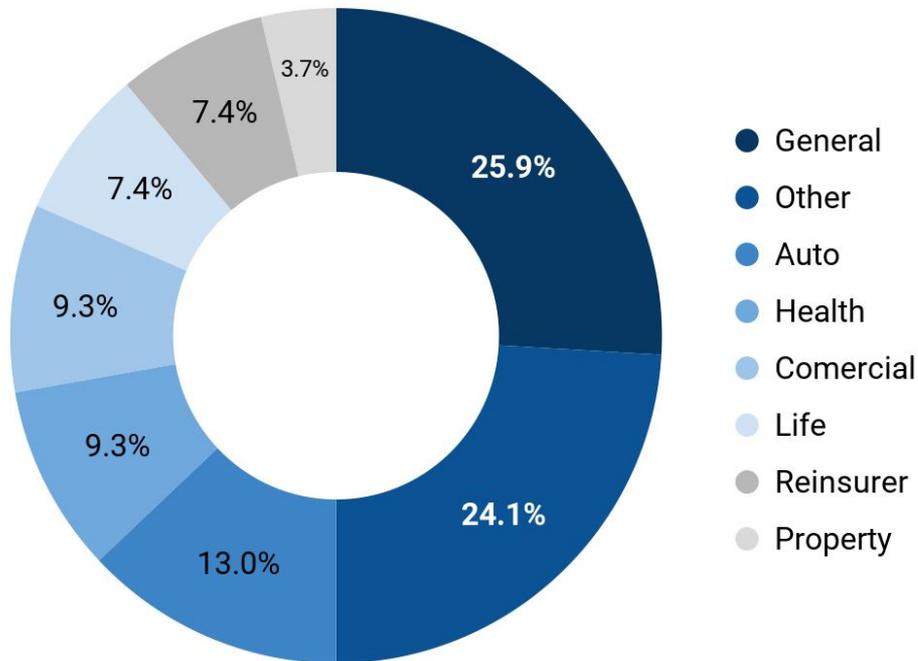
The other **30%** of companies involved in InsurTech are located in **Zug, Basel, and Bern cantons**. Therefore the majority of companies are situated in the north of the country.

Only around **8%** of the companies are located in **the south of the country**.



# Swiss InsurTech Structure

InsurTech Companies Segmentation by Products



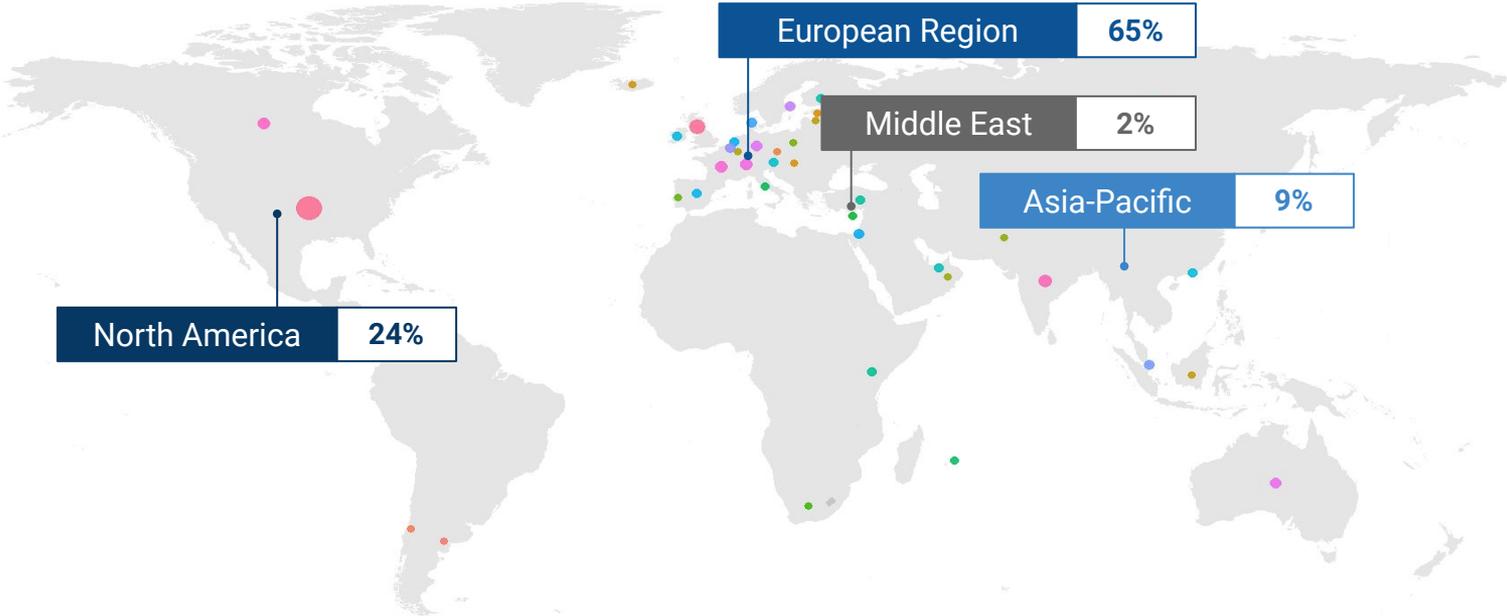
**Around a quarter** of the companies related to InsurTech are **General Insurance Companies**, that are well-established on the market and actively invest in the new technology to improve their efficiency and broaden the consumer market. The General Companies **offer wide range** of insurance products **from health to P&C insurance**.

The companies that **provide support to** the insurers **on the different stages of insurance production** (actuarial software, underwriting, data mining and analysis, producing white label products, help in distribution and promotion, etc.) are united with category **Other** and stand for **24%** of the sample.

**Auto insurance** are the third by number of companies segment in Switzerland. It takes **13%** of the sample. These InsurTech companies unlike classic insurance companies provide consumer with easy to get solution with **customize propositions based in the smartphone**.

# Distribution of Swiss InsurTech Investors by Regions in 2021

Distribution of Number of Investors by Region



The majority of investors (65%) in the Swiss InsurTech market are from Europe, while 24% are from North America, specifically the United States, 9% are from Asia-Pacific, and 2% are from the Middle East.

# Top Publicly Traded Companies in InsurTech

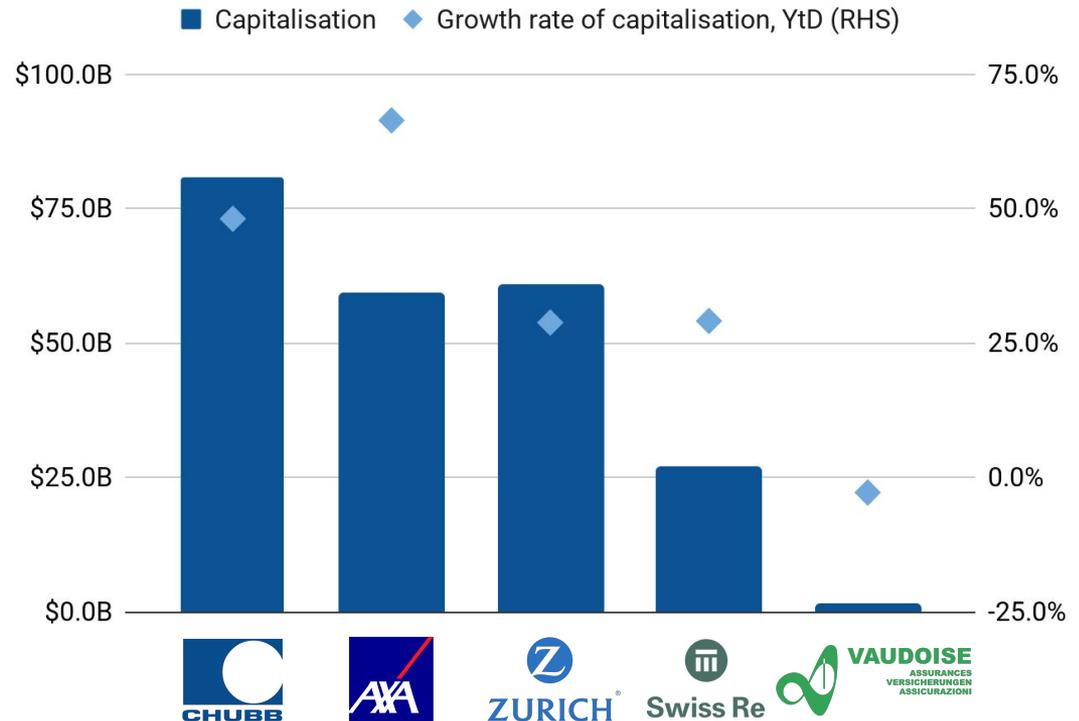
**Top 5 publicly traded companies** that are deeply involved in the development and implementation of InsurTech solutions in their operation activity are depicted on the right graph.

All of them **either invest, or acquire, or copy recent trends** on the insurance market and startups that provide respective services.

**Capitalisation of the companies at the beginning of Q4 2021 (YTD growth rate):**

- Chubb (CB): \$80,8B (+48.1%)
- AXA Group (CS): \$68,7B (+66.4%)
- Zurich Insurance Group (ZURN): \$66,0B (+28.8%)
- Swiss RE (SSREY): \$29,2B (29.1%)
- Vaudoise Assurances (VAHN): \$491B (-2.8%)

Capitalisation and Stock Price of Publicly Traded Companies, in \$



# Top Swiss Publicly Traded Companies in InsurTech Dynamics

The publicly traded companies are world-scale and well-established players in the insurance market. All of them operate more than a century. However, they are seeking for innovative solution and are focused on “strategic” opportunities.

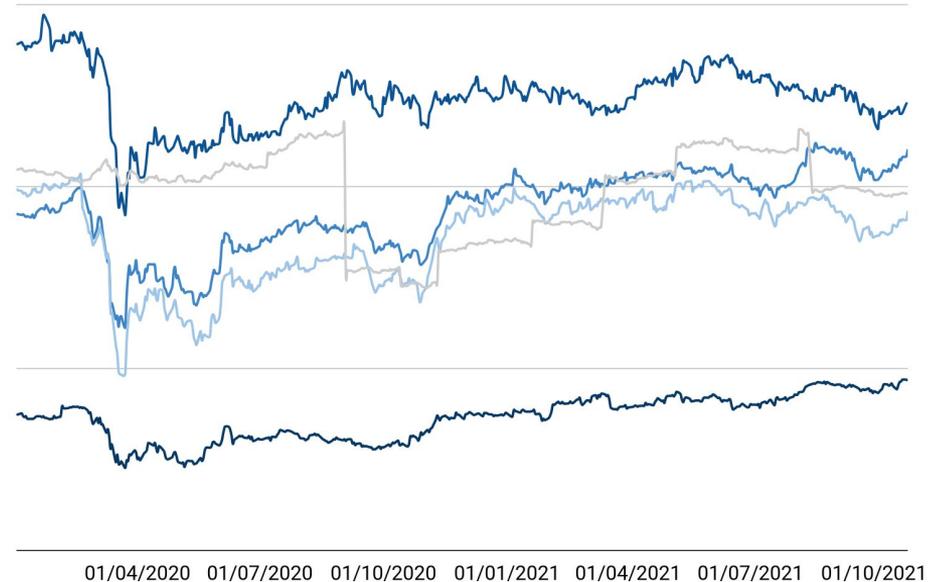
Price dynamics of companies, with exception of Swiss subsidiary of AXA Group (CS), reveals **sign of the recovery** after precipitous fall in Feb-April 2020 during first wave of Covid-19 Pandemic.

**Annualized average daily growth rate YTD of stocks price:**

- Chubb (Ticker: CB): +98.27% (+0.17% per day)
- Vaudoise Assurances (Ticker: VAHN): +97.38% (+0.01% per day)
- Zurich Insurance Group (Ticker: ZURN): +98.17% (+0.12% per day)
- AXA Group (Ticker: CS): +98.18% (+0.12% per day)
- Swiss RE (Ticker: SSREY): +98.14% (+0.10% per day)

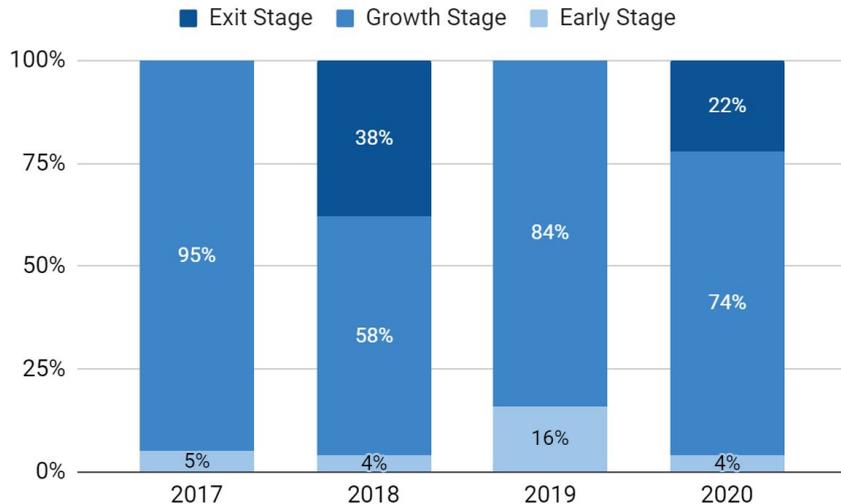
## Stock Price Dynamics of Swiss Publicly Traded Companies

— CB Adj. Close — VAHN Adj. Close — ZURN Adj. Close — SSREY Adj. Close — CS Adj. Close



# Global InsurTech Startups Fundings

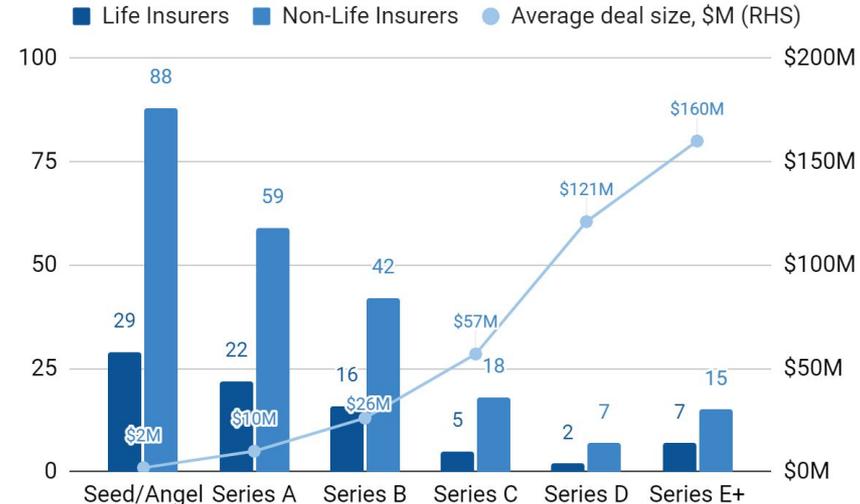
## Funding Rounds of Startups Invested by Insurance Companies, % of Money Raised



Despite 22% of investments made on the **Exit Stage in 2020**, the majority of investments from insurance companies occurs **on the growing stages** (Series A-E+) - **74%** of all investment deals. Most insurance companies are not ready for venture investments and funds only as startups become increasingly mature.

Source: Quarterly InsurTech Briefing Q4 2020 - Willis Towers Watson

## Number of deals at each stage and the average deal size in 2020



**Non-Life insurers** were more active investors in the InsurTech startups on the all stages of funding. Furthermore, **Non-Life Insurers more than 3 times more often seed** startups than Life Insurers. Average deal size growth exponentially with later stages of fundings.

# Swiss InsurTech Startups Products

## B2B



### Connectivity Insurance

Founded in 2020, **Riskwolf** is building the technology platform to deliver customized, parametric insurance to fill this significant protection gap and create innovative, untapped markets for the insurance industry. Its highly optimized platform is capable of detecting internet outages, modelling the insurance risks and making payouts in real time.



### Improving the Underwriting Performance

**Sustema** analyses corporate behavior using publicly available data to improve the underwriting performance of commercial insurance companies. Existing customers have seen loss ratio gains of 28% in backtesting of their portfolios.



### Provider of White Label Insurance

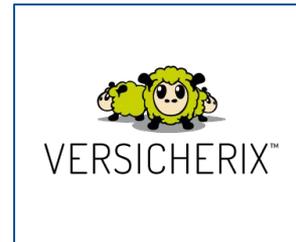
**TONI Digital's** business model is based on an insurance-as-a-service approach and enables well-known brands to quickly launch their own insurance products in digital format.

## B2C



### Online Insurance Comparison Service

**Anivo** is the first Swiss online insurance comparison service and an insurance broker that provides personal insurance counseling.



### Peer-to-Peer Insurance

**Versicherix** was introduced earlier this year as Switzerland's first peer-to-peer insurance, providing new ways of engaging with customers and offering cheaper and more customer-centric insurance coverage.

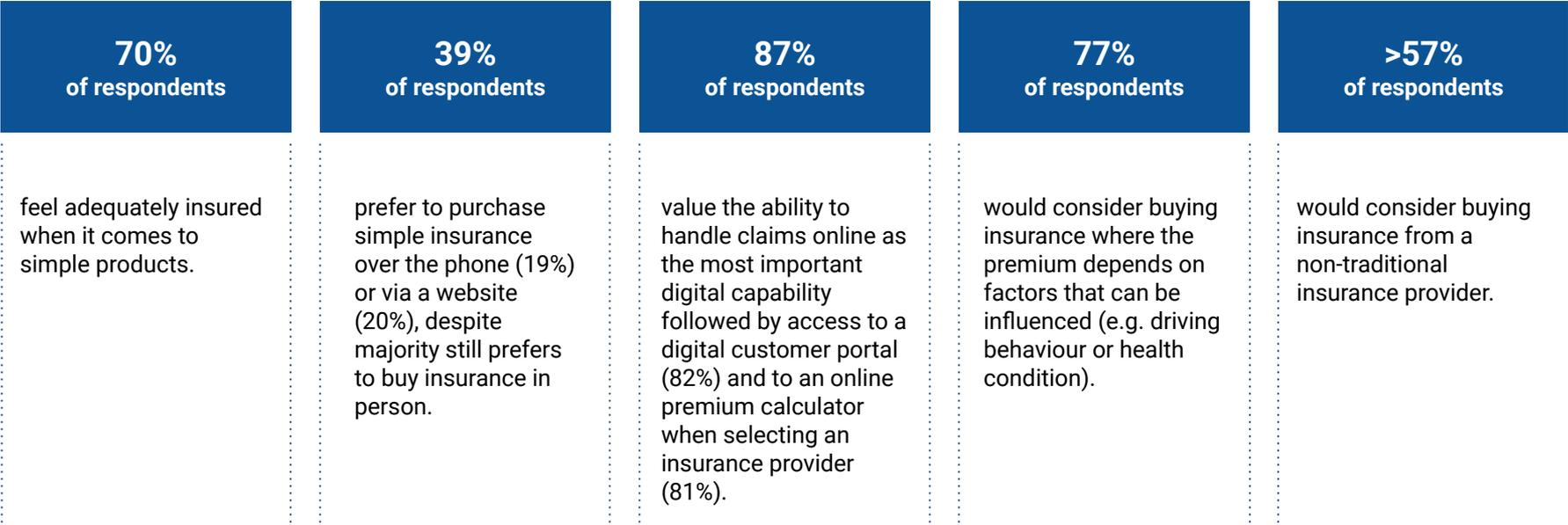


### Digital Insurance Organizer

**Wefox** provides a digital platform that lets store all of insurance policies in one app through which one can file and manage insurance claims and get personal advice. Wefox currently features more than 300 insurance companies on the marketplace and serves more than 450.000 consumers.

# InsureTech as Development of Insurance: Swiss Consumer trends

**InsureTech** is natural response on the changing consumers habits and new needs. InsureTech provides simple solutions in the stone's throw away. The **Insurance Consumer Survey** conducted by Deloitte has **highlighted openness and readiness** of consumers to new products and solutions provided by InsurTech.



Source: Swiss Insurance Consumer Report, Deloitte

# InsurTech as Development of Insurance: Providers Trends

	The idea behind	Implementation by Startups
 <p><b>Wearables and biometric devices</b></p>	<p>The <b>telematics devices</b> are used in cars to monitor driving and internet of things (IoT). Devices are put in houses to detect potential risks. The world of LAH (life, accident &amp; health) insurance is undergoing the adoption of <b>wearables and biometrics</b> in the same revolutionary way.</p>	<p>Companies such as <b>dacadoo, HealthIQ and Lapetus</b> are building solutions to ingest various types of data derived from wearables that can then be consumed by underwriters directly or go through proprietary underwriting platforms.</p>
 <p><b>Data intelligence on available life and health records</b></p>	<p><b>Electronic Health Records (EHRs)</b> is an electronic version of a patient's medical history that is maintained by the provider over time and may include all of the <b>key administrative clinical data</b> relevant to that person's care under a particular provider, including demographics, progress notes, problems and medications.</p>	<p>Firms such as <b>Qrvey</b> have done an excellent job of working with EHR providers to create an analytics solution to allow (re)insurers the ability to best understand the underlying data that are being presented relative to their own underwriting guidelines and customer engagement.</p>
 <p><b>Molecular gene road maps/genomics</b></p>	<p>Unlike EHRs and biometric devices, <b>genomics</b> offers a brand new way of looking at the health and mortality rate of an individual at a molecular level. <b>Genetic data</b> can tell insurers more about <b>mortality probabilities</b> unmeasured by the traditional underwriting process.</p>	<p>A number of InsurTechs are adding significant value to (re)insurers already in this space; for example, <b>FOXO BioScience</b> uses genomics to quantify insured's health road map data to be used in the underwriting process.</p>

Source: Quarterly InsurTech Briefing Q4 2020 - Willis Towers Watson

# InsurTech Trends / Prospects

## Predictive Analytics

Many insurance companies use predictive analytics to anticipate possible future customer behavior through data collection. But it is not the only thing, because now these companies can use predictive analytics to identify fraud risks, triage claims, anticipate trends and detect customers at risk of cancellation.

## Artificial Intelligence

The incorporation of AI for businesses and households have been slowly gaining momentum, and with the impetus of the pandemic in 2020, the process of digitization in insurance companies has accelerated significantly. Although not many companies invested massively, they will place great emphasis on digital technologies in the coming months.

## Automation and Machine Learning

Machine learning not only improves claims processing but also automates it. This technology allows digital files to be analyzed by programmed algorithms, improving the speed and accuracy of processing. Its applications in the insurance sector can be extended to claims, policy administration, and risk assessment.

## Cybersecurity and Blockchain Technology

Blockchain offers a \$5 billion opportunity for insurance companies for damages. This could trigger “the transformation of business transactions and information exchange on the one hand and the elimination of costly layers of overhead dedicated to verification on the other.

## Internet of Things (IoT)

Most consumers are willing to share more information in exchange for savings on their insurance policies, and the IoT automates that data sharing. These devices can be used as components of smart homes, car sensors, and mobile technologies to determine better rates, prevent losses, and reduce risk.

# InsurTech and Biomarkers of Human Longevity



# Biomarkers for Financial Market

Many **financial instruments can be optimized using biomarkers-based longevity and/or mortality indices**. Such instruments show great value for a whole variety of entities, both governmental and privately held, providing optimized hedging solutions.

Over 150 financial and, in particular, **insurance companies** are already developing innovative products and services which creates information infrastructure and provides data about Health Adjusted Life Expectancy (HALE), disability-adjusted life year (DALY) etc. Main players include **pension funds** that have a lot of liabilities to shift, **insurers and reinsurers** that are actively working with pension funds to hedge their risks, and **investment banks** along with major financial services companies that are also eager to provide insurance to pension funds and to trade the longevity risk itself.

Due to the ecosystemic structure of the Longevity Industry, the interconnectedness and mutual influences of its sub-sectors make the growth of longevity infrastructure inevitable, since changes in one sector imply the developments in others.

## Who can benefit?



Insurance Companies



Private Equity Funds



Private Banks & Wealth Managers



Corporations



Asset Management Companies



Venture Capital Funds



Independent Financial Advisors



Retail Banks



Pension Funds



Challenger Banks

# Longevity Risk / Longevity-derived Financial Instruments

Extended lifespan raises challenges regarding how individuals manage their wealth. It also causes the Longevity risk which arrives due to inaccurate predictions of the level of mortality rate and numbers of retirees. The Longevity derivatives are the tools aimed to suppress the adverse effects of this risk.

## Problems

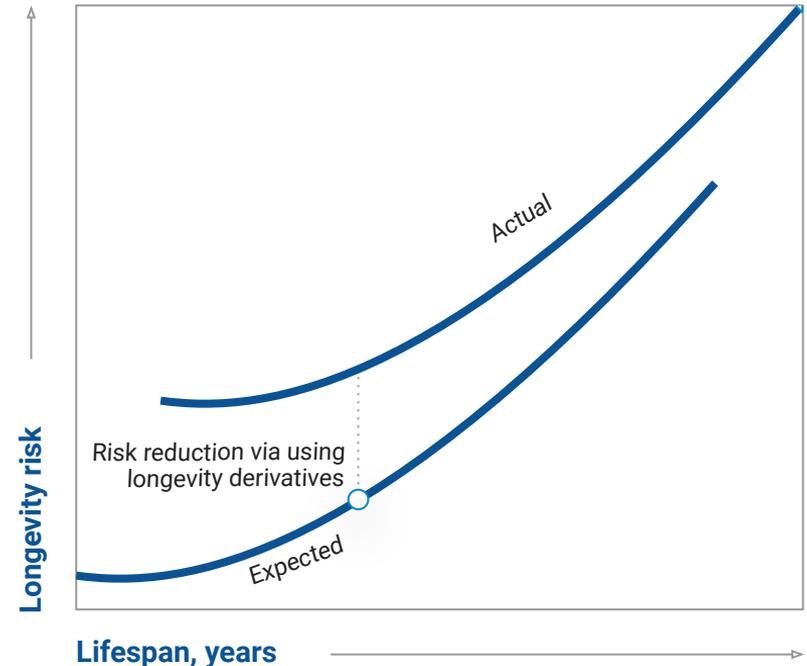
- Inaccurate predictions of mortality level rate and numbers of retirees
- **Solvency II Regulation** requires that insurance companies measure and evaluate the Longevity risk and, as a result, increase the capital level required for the Longevity risk hedging
- The absence of optimized and accurate Longevity-related financial instruments

## Solutions

- Hedging Longevity risks with financial instruments based on biological age that cover more Longevity Risk than traditional longevity hedging instruments
- Engineering and valuation of a next generation of Longevity derivatives
- Providing insurance companies with tradable hedging instruments

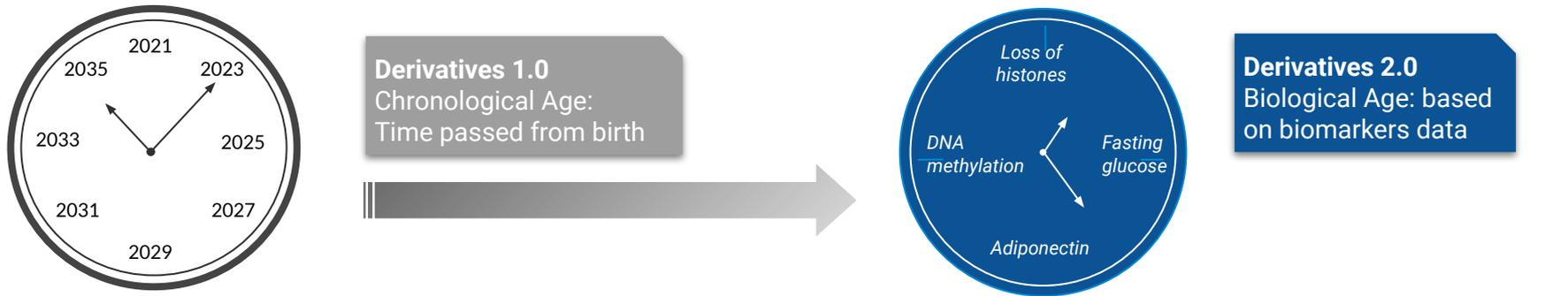
Source: Artemis, Longevity Derivatives

Aging Analytics Agency



# Longevity Risk / Longevity-derived Financial Instruments

As a rule, the players of life insurance markets use Longevity instruments tied to **chronological age**. That means that underlying assets are related to chronological age, for instance, mortality indexes. At the same time, we propose the development of financial derivatives tied to **biological age (Derivatives 2.0)** that can prove their efficiency in decreasing the Longevity risk.



	Chronological age	Biological age
<b>Definition</b>	The amount of time that has passed from birth of organism to the given date	Age based on the individual's physiological health status that is defined by a health-related biomarkers analysis. Biological age highlights the cumulative aging rate of a person.
<b>Key features</b>	<ul style="list-style-type: none"> <li>Is not influenced by lifestyle habits or socioeconomic conditions</li> <li>Has a statistical correlation with how people feel and function physiologically, but it varies between individuals</li> </ul>	<ul style="list-style-type: none"> <li>May be different from the chronological age as it correlates with the health status that varies among individuals of the same chronological group</li> <li>Can be reversed/accelerated by lifestyle factors, such as sleeping, diet, exercising</li> </ul>

# Longevity Risks Hedging Opportunities for Companies

Main stakeholders who might be interested in the markets for longevity-linked securities are hedgers, arbitrageurs and speculators, who need derivatives as a response to Longevity Risks and speculations.

Hedgers may have **significant exposure to Longevity Risk** and wish to **lay off that risk**: annuity providers lose if mortality improves by more than anticipated, whilst life assurers stand to gain, and vice versa. Pension funds and insurance companies, such as Fujitsu Pension Plan and Hannover Re have an incentive to transfer longevity risk off their books, especially since this risk exposure is potentially large.

For small pension funds, the case for Longevity Risk transfer may be relatively strong as they tend to have a more significant Longevity Risk exposure due to undiversified idiosyncratic Longevity Risk. Defined benefit pension fund liabilities are exposed to longevity risk while their assets, typically equities, bonds and real estate, are not. **All institutions** that suffer from losses due to risks related to increasing Longevity and age-related diseases **will be able to hedge more efficiently via biological age financial instruments** than via chronological ones due to the higher correlation between biological age and risk of age-related disease.

Source: Artemis, Longevity Derivatives

## Hedgers



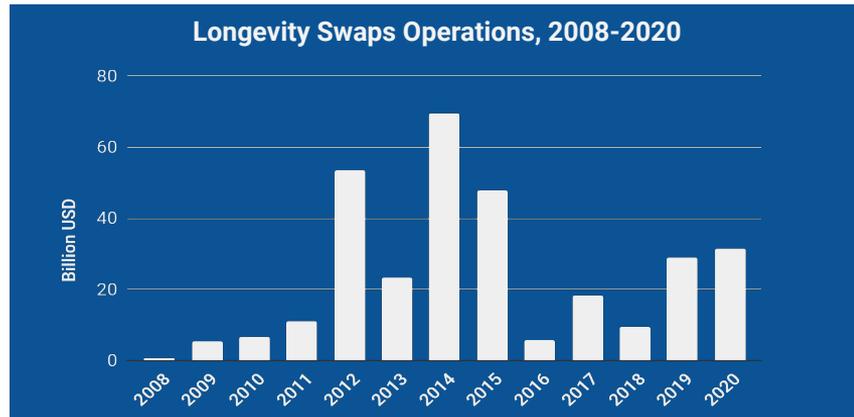
- Higher level of profitability due to the more efficient hedging
- Unique possibility to hedge longevity risks



- Comprehensive and complicated valuation of derivatives
- Higher level of risks

# Longevity Risks Hedging Opportunities for Companies

The graph below depicts the dynamics of Longevity swaps' operations in the period of 2008-2020 years. During this period, deals for the amount of \$ 313 billion had been struck. The amount of new operations correlates with life insurance market size. For example, the insurance market size in the US also significantly dropped after the 2015 year and slightly recovered during the 2016-2020 years (IBISWorld, 2020). About 95,77 % of longevity swap deals belong to 3 countries: UK (53,49%), the Netherlands (25,09%) and USA (17,19%).



Source: Artemis, Longevity Derivatives

One of the biggest deals using longevity swap was signed in May 2021 between **Swiss Re as an arbitrageur** and **The Trustee of the ICL Group Pension Plan, a Fujitsu pension scheme, as a hedger**. This longevity risk transfer insured **£3.7 billion of hedgers' liabilities** and covers pensions in payment for approximately 9,000 members. **Other institutions** of the swap deal infrastructure include:

- **Willis Towers Watson** as actuarial and transaction adviser to the hedger
- **Gowling WLG LLP and Momentum Investment Solutions and Consulting** as legal and investment adviser to the hedger
- **Pinsent Masons LLP** as legal adviser to the hedger
- **Insight Investment** as calculation agent, collateral manager, and collateral valuation agent.



# Key Takeaways



**World Insurance sector** has written **in total** a little less than **\$6.3T direct premiums** (**\$3.5T Non-life** insurance and **\$2.8T Life** Insurance) in 2020. These numbers **are projected to grow** with 5.6% and 4.8% CAGR respectively and **reach \$4.9T and \$3.9T**. On **the 1st place** by written premiums in the Non-life insurance are **Motor Vehicles** insurance, accounted for 36.2% of gross premiums in 2019, and followed by **Health Insurance** with 21.3% of gross premiums. **Major products** of the **Life Insurance** sector are **pension schemes** and individual **endowment insurance**.



**Switzerland** is known for its substantial and diverse **finance sector**. **Over 9% of all Swiss Gross Value Added (GVA)** is produced by Finance sector. **Over 40%** of Swiss finance sector GVA **is Insurance market**. Moreover, Insurance sector was not affected by Dot-Com and the Financial Crises thus **more than double for the last 20 years**. It was also **main driver of the whole finance sector** growth in Switzerland.



**Global InsurTech funding** has managed to reach **an all-time high**, with **the first half of 2021** already exceeding the full year of funding in 2020. **InsurTechs industry** raised **\$7.4B in the first half of 2021**, outpacing the \$7.1B raised in all of 2020 by more than \$300M, that also affected the InsurTech Industry in Switzerland. The rising demand for **the digitization of insurance services** coupled with **the simplification of the claims process** is expected to **drive the growth** of global InsurTech market.



**InsurTech in Switzerland** provides market with innovation both **in B2B and B2C markets**. Startups, funded by both European and American investors, **improve underwriting** activity using sophisticated AI and ML algorithms, **develop white label products** for insurance giant, **guarantee peer-to-peer insurance**, help consumers to **compare different insurance products**, etc. InsureTech is natural response on the **changing consumers habits and new needs**, as well as usable tool for **implementing technologies** in the classic insurance industry.



Many financial instruments can be optimized using **biomarkers-based longevity and/or mortality indices**. Over 150 financial and, in particular, **insurance companies** are already developing innovative products and services which creates information infrastructure and provides data about Health Adjusted Life Expectancy (HALE) and disability-adjusted life year (DALY). Due to the ecosystemic structure of the Longevity Industry, the interconnectedness and mutual influences of its sub-sectors make the growth of longevity infrastructure inevitable.

# House of InsurTech: About



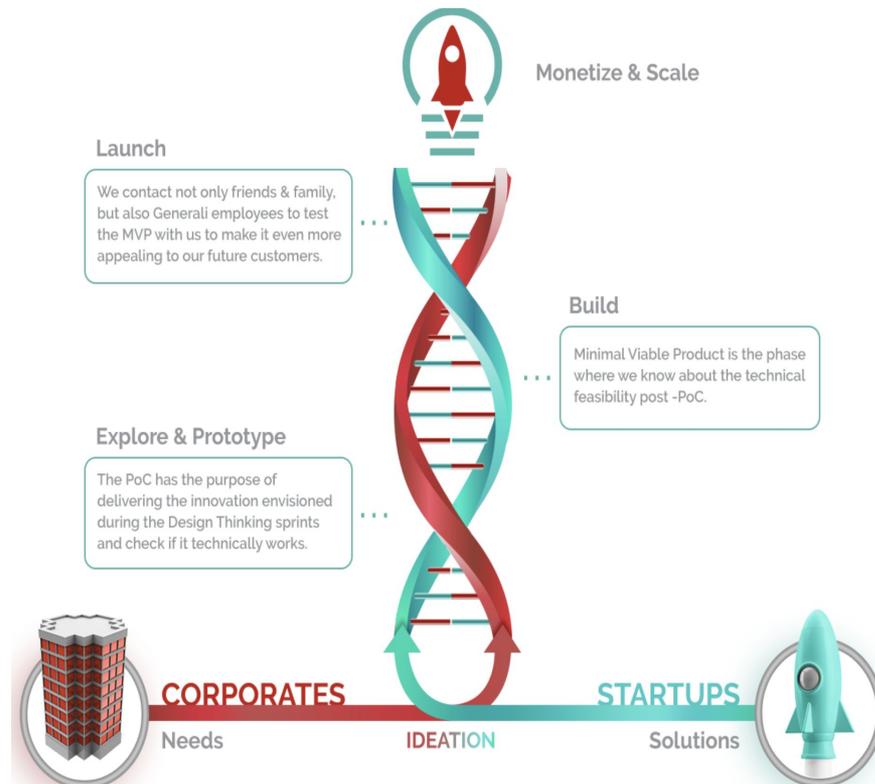
Website - <http://houseofinsurtech.ch>

Headquarters - Adliswil, Switzerland

Number of employees - <10

**HITS** is a Insurtech hub, where startups find a place to work and get in contact with corporates and investors. With partners from the insurtech world and universities creating the perfect environment to make innovation happen.

**HITS aims** at becoming a leading Insurtech hub by shaping and nurturing partnerships between corporates and start-ups to accelerate and scale corporate innovation. At HITS, they inject innovation into corporates by partnering with startups and call it Corp-up. Corp-up is the matching of corporate needs with startup solutions, shaping and nurturing partnerships between the two to accelerate and scale corporate innovation. They use techniques like Design Thinking and work in a fully agile manner.



# Digital Insurance Association Switzerland: About



**DIGITAL INSURANCE  
ASSOCIATION  
SWITZERLAND (DIAS)**

Website - <https://www.vdvs.ch/?lang=en>

Headquarters - Zurich, Switzerland

Number of employees - <10

The **Digital Insurance Association Switzerland (DIAS)** is a group of companies in the digital insurance industry in Switzerland. With members from a range of fields, the DIAS is the voice of the digital insurance industry and acts as an impetus provider and driver of digital insurance models. Supporting more innovation and customer focus in the Swiss insurance industry, promote a dialogue within the association as well as links to associations and organizations with similar goals both in Switzerland and abroad.

## Members



# Swiss InsurTech Hub: About



Website - [www.swissinsurtech.com](http://www.swissinsurtech.com)

Headquarters - Zurich, Switzerland

Number of employees - <25

**The Swiss InsurTech Hub** is a non-profit association with the mission to build and grow the leading InsurTech Hub in Switzerland.

**The aim** is to create, nurture, and foster an open, inclusive, and collaborative InsurTech ecosystem in Switzerland which has a measurable impact on incumbents, start-ups, investors, and public bodies, enable and foment the dialogue and exchange of the diverse participants of the ecosystem, including innovators, experts, partners, academics and diverse technologies, from Switzerland and around the world.

## Objectives

- ❑ Promote the digitalization and innovation of the insurance sector for the benefit of the entire industry today and tomorrow.
- ❑ Support the exchange of knowledge, skills and experiences developed by Insurtech companies.
- ❑ Develop an open collaboration framework for various stakeholders (e.g. universities, public institutions, etc.)

## Start-up Members



# Swiss Insurance Association: About

ASA | SVV

Website - <http://www.svv.ch>

Headquarters - Zurich, Switzerland

Number of employees - <30

**The Swiss Insurance Association (SIA)** represents the interests of the private insurance industry at national and international level. The association comprises around 70 primary insurers and reinsurers employing a workforce of 46,000 people in Switzerland. Overall, the member companies of the SIA account for around 85 per cent of insurance premiums generated in the Swiss market. This makes the insurance industry and, as a result, the SIA a major force in the Swiss economy. Private insurers are therefore committed to the successful development of the areas they operate in, both in business and in social and political terms, meaning that they assume economic responsibility.

**The SIA** is a member of national and international associations and organisations. It represents its members' interests and concerns namely vis-à-vis *economiesuisse*, the Swiss Employers Confederation and the Swiss Chamber of Commerce. Its membership in the European (re)insurance federation Insurance Europe and the Global Federation of Insurance Associations GfIA are of particular relevance.

## The SIA is mainly active in the following fields:

- social security (occupational pensions, life insurance)
- medical insurance, accident insurance
- insurance law and supervision
- competition and regulation
- economic and fiscal policy
- climate and environment protection
- health promotion activities
- education and training

**The SIA** promotes trust and confidence in the insurance industry by pursuing an active communication policy

# F10: About



Website - <https://www.f10.global>

Headquarters - Zurich, Switzerland

Number of employees - <100

**F10** is a global innovation ecosystem with offices in Zurich, Singapore, Madrid, Barcelona. They believe the fastest route to innovation lies in early collaboration between startups, incumbents and investors. Each stakeholder benefits from shared skills, experience and insight. F10 founding sponsor is SIX, a global financial infrastructure provider and operator of the Swiss and Spanish stock exchanges. Today it is joined by a global cohort of influential banks, consultancies, insurers and tech firms. **F10 mission** is to unite tech startups with big business to shape the future of banking and insurance. **F10** is the connection plug between agile startups and us smart incumbents

## Incubator & Accelerator programs

Incubator & Accelerator programs help **startups in connecting with entrepreneurs, experts, mentors, and investors for early stage venture and late stage venture investing.**

## Corporate partners



# Government Regulation in Swiss InsurTech Industry



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

**Swiss Financial Market Supervisors Authority (FINMA)** is Switzerland's independent financial-markets regulator. Its mandate is to supervise banks, **insurance companies**, financial institutions, collective investment schemes, and their asset managers and fund management companies. It also regulates insurance intermediaries. It is charged with protecting creditors, investors and policyholders. **FINMA is mandated to protect financial market clients – creditors, investors and policyholders – and is responsible for ensuring that Switzerland's financial markets function effectively.** Its supervisory tasks - authorisation, supervision and, where necessary, the enforcement of supervisory law – are derived from that mandate. In addition, FINMA can also regulate activities where it is authorised to do so. In performing its supervisory activities, FINMA adopts a systematic risk-oriented approach and is mindful to ensure continuity and accountability. This strengthens confidence in the proper functioning, integrity, competitiveness and sustainability of Switzerland's financial centre.

**The Swiss Federal Insurance Office (FSIO)** is competent for social insurance business (in particular, old-age and survivors insurance (OASI), invalidity insurance (IV), mandatory health and accident insurance as well as occupation pension funds, is maintained and constantly adapted to meet new challenges. The FSIO ensure that this social net is effective and continually adapts the system to changing realities. It is also the federal office responsible for policies relating to family, children and intergenerational relations, and deals with all general matters relating to social policy. **The FSIO controls** the work of implementing institutions and prepares the ongoing alignment of the law to changing social reality. The FSIO is currently in particular working to consolidate OASI (modernising the insurance, long-term financial security of OASI) and invalidity insurance (implementing the sixth IV revision) and to introduce the fully revised Law of Youth Encouragement and provides general information on social security in Switzerland.

# Upcoming Insurance Events in Switzerland

Date	Name	Location	Description
Mar 30, 2022	<b>Insurance Management Simulation</b>	Online	This innovative training for strategic leaders empowers participants to experience first-hand the challenges of running an insurance company.
May 18, 2022	<b>9th AIDA Europe Conference</b>	Zurich	Since 1960 AIDA has been a non-profit making international association successfully promoting and developing collaboration between its members and related institutions worldwide to help increase the study, knowledge and understanding of international and national insurance laws and their application in the changing world of insurance.
May 18, 2022	<b>International Conference on Finance, Banking and Insurance</b>	Zurich	International Conference on Finance, Banking and Insurance aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of Finance, Banking and Insurance. It also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Finance, Banking and Insurance
Oct 05, 2022	<b>IndustryForum Insurance</b>	Online	Annual Swiss Conference on insurance aims to bring together leading market players and professionals to exchange and share their experiences and research results on all aspects of current industry development level.

# Influencers



**Nigel Walsh**  
Managing Director,  
Insurance at Google



**Paolo Cuomo**  
Director of  
Operations, Brit  
Insurance



**Sabine  
VanderLinden**  
Co-editor of the  
InsurTech Book



**Andreas Staub**  
Head of corporate  
development and  
digital  
transformation  
Raiffeisen Group



**Matteo Carbone**  
Founder and Director  
at IoT Insurance  
Observatory



**Spiros Margaris**  
VC /Advisor/ Board  
Member at Margaris  
Ventures



**Rick Huckstep**  
Chairman at The  
Digital Insurer



**Minh Q. Tran**  
Managing Partner at  
Insurtech Capital



**Dr. Xenia Isabel  
Gioia Poppe**  
Director Insurtech  
Munich, Plug and  
Play



**Renato Haechler**  
Director in Swiss Re  
Corporate Solutions'  
Innovation &  
Transformation  
department



**Thierry Daucourt**  
Chief Commercial  
Lines Officer, AXA



**Beat Stalder**  
Group Chief  
Underwriting Officer,  
Helvetia



**Sian Fisher**  
Chief Executive  
Officer, Chartered  
Insurance Institute



**Stephen Brittain**  
Co-founder,  
Insurtech Gateway



**Eileen Potter**  
Solution Marketing  
Manager, Insurance,  
ABBY



**John Spellman**  
Special Advisor,  
Insurtech Isle of Man



**Graeme Dean**  
VP Global Insurance  
Solutions, Cover  
Genius



**Andrew Barratclough**  
Vice President,  
Insurance  
Partnerships, eDriving



**Dr Nazim Cetin**  
Chief Executive  
Officer, Allianz X



**Sophie Dingville**  
ex-Investment  
Director, Munich Re

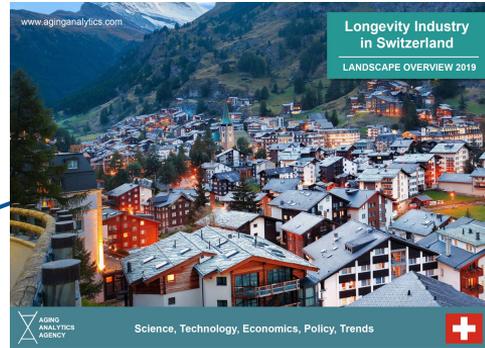
# Stay on Top of the Latest Intelligence

Stay on top of the latest information about Switzerland's DeepTech Industry with our analytical case studies and interactive IT platforms.



**FemTech Industry in Switzerland**  
Landscape Overview Q3 2021  
Teaser  
September 2021  
www.femtech.health

FemTech Analytics



www.aginganalytics.com  
**Longevity Industry in Switzerland**  
LANDSCAPE OVERVIEW 2019  
AGING ANALYTICS AGENCY  
Science, Technology, Economics, Policy, Trends



**Longevity and Precision Medicine Clinics in Switzerland**  
Landscape Overview Q3 2021



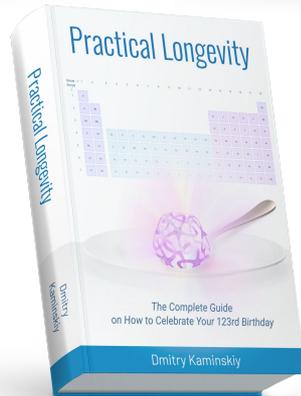
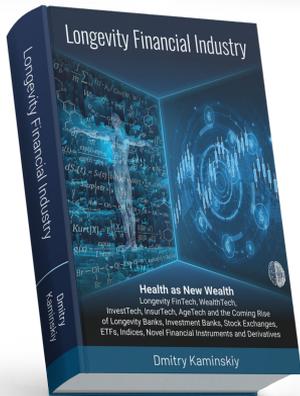
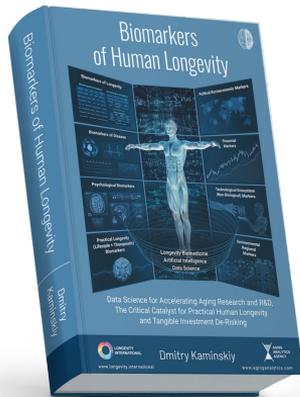
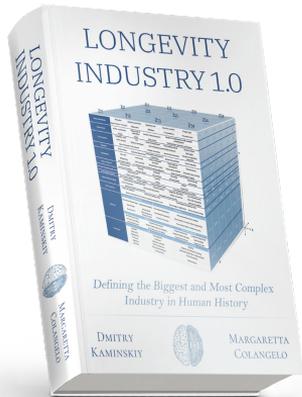
**Artificial Intelligence Industry in Switzerland**  
Landscape Overview 2021/Q3  
Teaser  
August, 2021

DEEP KNOWLEDGE ANALYTICS



**Basel Area Life Sciences Ecosystem**  
Landscape Overview Q3 2021  
Teaser  
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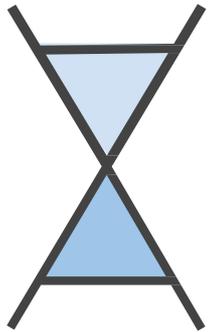
AGING ANALYTICS AGENCY



[www.longevity-book.com](http://www.longevity-book.com)



# About Aging Analytics Agency



## AGING ANALYTICS AGENCY

**Aging Analytics Agency** is primarily interested in strategic collaboration with international corporations, organizations, and governments in Longevity-related projects and initiatives.

**Aging Analytics Agency** is open to cooperation with strategic clients via a variety of approaches, including:

- Conducting customised case studies, research and analytics for internal (organizational) use, tailored to the precise needs of specific clients.
- Producing open-access analytical reports.
- Offering customised analysis using specialised interactive industry and technology databases and IT-Platforms.

In certain specific cases, if it meets our interests, Aging Analytics Agency is open to co-sponsoring research and analytics for the production of internal and open-access industry reports, as well as special case studies for a variety of governmental, international, and corporate clients. Their topics of interest may include Longevity, the Longevity Financial Industry, Longevity Policy and Governance, and the development and execution of fully-integrated National Healthy Longevity Development Plans tailored to the specific needs of national governments and economies.

# Aging Analytics Agency: Value Proposition

Visit Website



Aging Analytics Agency is the only specialised analytics agency in the world that focuses exclusively on the emerging Longevity Industry. They are recognised internationally as the premier analytics agency for advanced data analysis, industry reports and next-generation infographics on the topics of Aging and Longevity.

## Aging Analytics Agency is focusing on three key activities:

### Providing Commercial Services

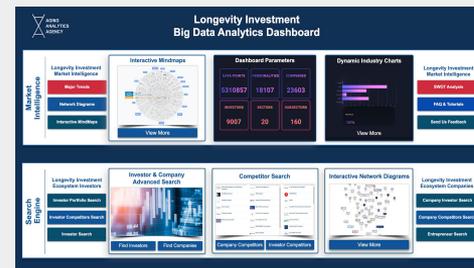
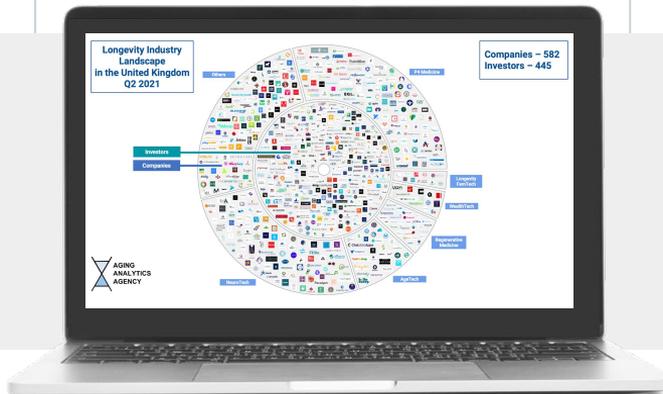
Conducting customized case studies, research, and analytics for internal (organizational) use, tailored to the precise needs of specific clients.

### Preparing Open Access Reports

Producing regular open access and proprietary analytical case studies on the emerging topics and trends in the Longevity Industry.

### Building Big Data Analytics Platforms

Offering customized analysis using specialized interactive industry and technology databases, IT-platforms, and Big Data Analytics Dashboards.





# AGING ANALYTICS AGENCY

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**Website: [www.aginganalytics.com](http://www.aginganalytics.com)**

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