Insurtech
GLOBAL OUTLOOK

Insiders.

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everis
an NTT DATA Company

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Our fourth edition of the **Insurtech Global Outlook** represents a significant change in the way we understand the transformation of the insurance industry, in terms of insurtechs, as well as TechGiants and other actors that are breaking into the sector.

This year, we have expanded the approach, including new aspects such as analysis by regions and emerging markets, a greater attention to insurtech but also in investors, a special focus on Outliers, liquid ecosystems (a framework that allows us to explain our vision on how people and organizations are understanding a new way of connecting and interacting with the different actors in their environment, which also includes insurers and where there are risks and opportunities), an in-depth analysis of how the commitment to invest in insurance-related startups is causing the fragmentation of the value chain, and with a special chapter regarding the prediction of successful startups within the insurance field.

To provide this new insight and deep data analysis, we leveraged inttrend, an AI & data-driven market intelligence platform (which has been developed by everis and NTT DATA) that helps corporates to make better growth strategies and business development decisions.

inttrend gathers and processes the most relevant public and private data-sources to offer a comprehensive view of innovation and business ecosystems in (near) real-time. We have harnessed the capabilities of this tool to perform an in-depth analysis of around 1000 insurtechs to draw a series of valuable conclusions to better understand trends and the main changes that occur in the field of the insurance sector and how insurtechs cover a fundamental role in it. Finally, this year we have also evolved the Insurtech Global Outlook website, where will be available new features and content. This updated version will complement our vision and allow users to search, find and analyze information from their own point of view.

Insurtech Global Outlook 2020 provides an in-depth analysis of the innovation within the insurance industry. Considering incumbents, insurtechs and TechGiants as the main actors, but also giving importance to other features such as investors, governments or emerged and developed markets. It provides a clear but detailed framework on trends, challenges and opportunities in the current industry revolution.

The reports provides a detailed investigation on almost 1000 insurtechs entities and more than 2000 deals from 76 insurers investment arms, detailing investments and partnerships, new projects and alliances, as well as the emergence of exponential technologies in the business models. We use this in-depth knowledge to explain our vision on how people and companies are understanding this new way of interaction within the different industry actors. This year's edition goes a step further, not only highlighting key findings but also adding a new key variables to provide a broader understanding on the industry disruption: the impact of the outliers and the non-outliers, predicting successful startups far from total funding amount, or the importance of ecosystems and the fragmentation of the value chain within the insurance field.
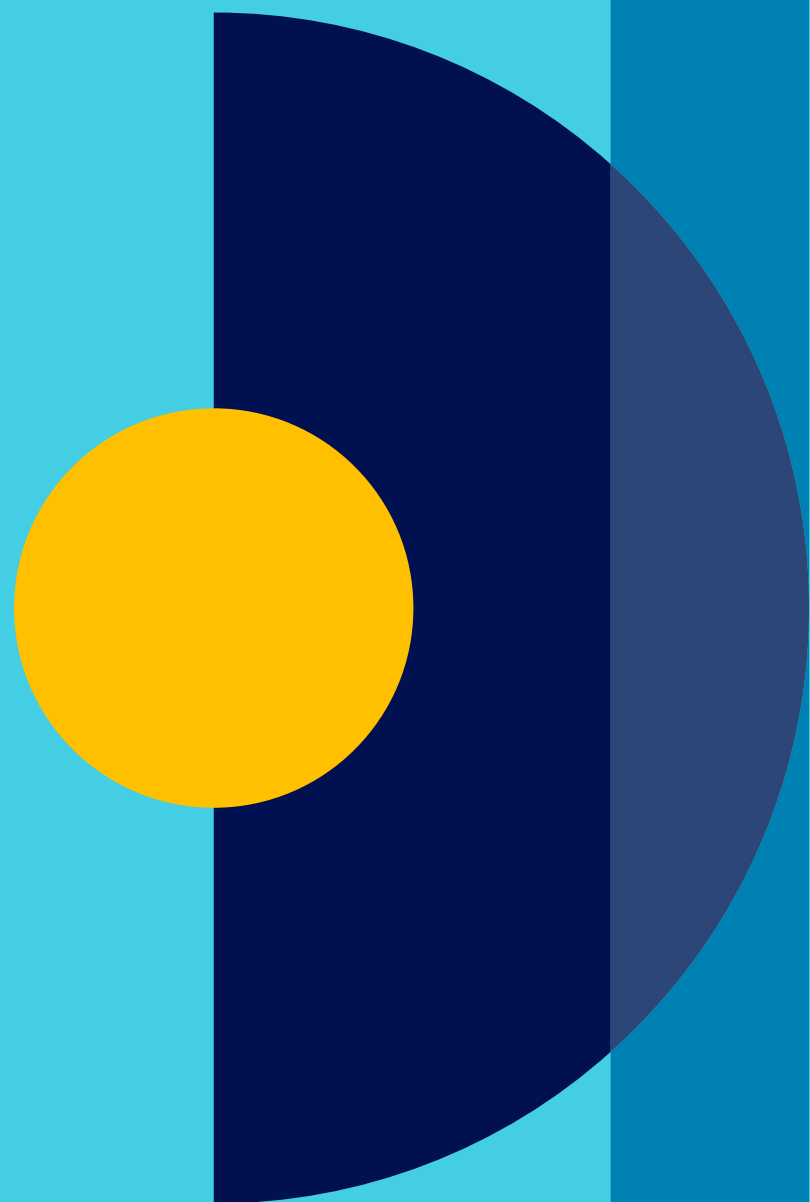
As in previous editions, NTT DATA and everis asked leading insurers to participate in the InsurTech survey. In this years edition, 44 leading insurance companies in 12 different countries across Europe, Asia, North and South America. The outcome of these surveys provide in-depth insights on the key domains of the insurance industry disruption, enabling the reader to leverage lessons learned and define actions to adress this risks and take advantage of the opportunities mentioned.

This publication of the **Insurtech Global Outlook** was created based on inttrend, an Artificial Intelligence and data-driven platform developed by everis and NTT DATA. A regularly updated edition as well as an interactive version of the report is available at URL.

We would like to thank all the participants and contributors that made it possible to create this InsurTech global outlook. We are proud to share this valuable industry insights, confirming NTT DATA as a Trusted Global Innovator.
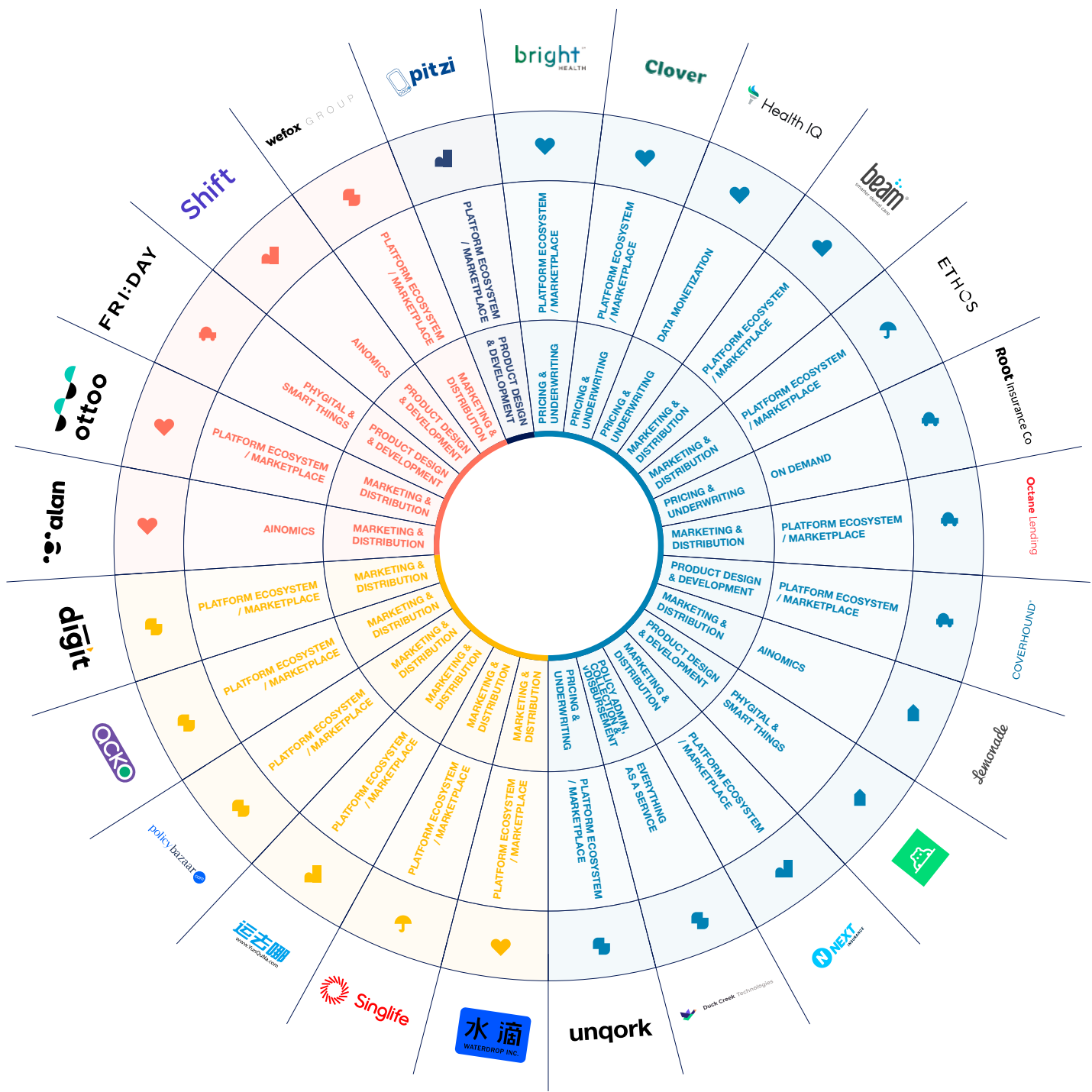
Intro.

25 Outliers
Disrupting Insurance Industry in 2019.

Based on empirical analysis & contextual framework.

The first trend.

The first trend is related to top funded companies (from 2010 to 2019) used at this moment to collect evidence that guided an in-depth analysis.

25 companies.

In 2019, just 25 companies (out of 238) received 72% of the total funding, raising relevant flags that are going to be briefly exposed in this summary. Finally, the process to understand the variables behind each company will give support to draw the first trend.

Mapping & clustering.

Firstly, the mapping and clustering of the aforementioned companies are essential to compress several different variables regarding technology, line of business and region. This information is relevant to understand the implications of each insurtech's attribute in the success to receive funds.

Legend:

- USA
- Asia
- Europe
- LATAM
- Auto
- Commercial
- Cross
- Health
- Home
- Life

Clusters 2019.

● **Medicare**

Clover

Health IQ

bright HEALTH

🔶 **Unfamiliar**

pitzi

Octane Lending

Singlife

水滴

beam

🔶 **American Giants**

NEXT INSURANCE

COVERHOUND®

Root Insurance Co

Lemonade

ETHOS

🔶 **European Leaders**

ottonova

wefox GROUP

FRI:DAY

alan

🔷 **Indian Giants**

policybazaar.com

ACKO

digit

🔷 **Insurance Empower**

Shift

运去哪
www.YunQuNa.com

unqork

Duck Creek Technologies

Outliers received large amounts of funding in 2019 due to the contextual domestic scenario or the support of technologies that empower the whole insurance ecosystem. Several markets are consolidating, making the leaders drain reasonable funds around the industry.

Given this picture, the second step in this analysis refers to the growth of the market in which a specific company operates. The following exploration of each cluster illustrates better the insurtech and market relationship.

The expected result is to find relationships and common reasons for these Outliers to attract exceptional amounts of funds.

Medicare in the USA.

●

The obstacles and bureaucracy in the administration of Medicare have opened an opportunity for tech-based startups like Oscar, Clover Health and Bright Health, to lead consumers and payers to transparency and cost reduction using intelligent data to prevent and predict risks.

Pioneer startups have succeeded in eliminating pain point, enabling in the system unprecedented and sustained scalability in a market with stable growth.

The last spring for these startups and their investors is having funds enough to concrete returns for investors through profits generation by geographical expansion markets, feeding intelligent data to improve processes and predictions, and creating in this way a virtuous circle for all the stakeholders when scales are required.

All these factors, explain the significant amount of funds flowing to Late-stage series by these Outliers.

Indian Insurtech market.

🔷

The value proposition of startups like Acko, Policy Bazaar or Digit Insurance that have obtained large funds in 2019, is based on the route to the market through new technologies that these companies are taking advantage of as to extend their reach.

In recent years, all data networks in the country have been updated, converting a significant number of individuals into the target market.

The potential market size is so large in relation to the one currently served that the use of these new technologies to distribute insurance products and services in a cost-effective way is very attractive to think they they are easily scalable models.

Medicare

Clover

Health IQ

bright HEALTH

Indian Giants

policybazaar.com

ACKO

digit

What's happening with startups empowering insurance businesses? Lead players by line of business.

Insurtech European leaders funds for accelerating growth and new products creation.

In 2019, investors have strongly supported startups such as Lemonade, Coverhound, Next Insurance, Root Insurance, Ethos and Hippo, pioneers in using technologies that have impacted the insurance value chain of their respective business lines.

Also startups like Duck Technologies, Shift Technology or Unqork - developers of technologies focused on process improvements across underwriting, sales and claims, and customer engagement - received significant support from investors in 2019 Late-stage series.

The funds in all cases will be used to expand operations in local or foreign markets and to consolidate the massive use of emerging technologies. The central idea of these expansions is gaining intelligent data.

No matter what segment they operate in, these companies are utilizing big data to understand behavioural data which in turn is helping them to design their product/services.

IoT, Big Data and Data Analytics will feed inputs for AI, reaching the "next level" in a massive way and assessing the complete map of the customer's behaviour and the characteristics of the new risks and their insurance forms.

When this transitional era is consolidated, the scale of operations will be huge enough for investors to see exponential returns on their investments.

In 2019, investors have secured a good chunk of the insurtech industry profits and shorten the pay-off term of their investments.

American Giants

NEXT INSURANCE

COVERHOUND®

Root Insurance Co

Lemonade

ETHOS

Insurance Empower

Shift

unqork

运去哪
www.YunQuNa.com

Duck Creek Technologies

European Leaders

ottonova

wefox GROUP

FRI:DAY

alan

Unfamiliar

pitzi

Singlife

Octane Lending

水滴

beam

In 2019, there was an important jump in the financing of European insurtech companies by local and foreign investors. Startups such as Friday, Ottonova and Wefox Group (Germany) and Alan (France), managed to capture large funds during this year, increasing the sensation that finally the European insurtech ecosystem is maturing.

The funds from these Late-stage series are being used by these startups mainly to accelerate growth and to create new products and services.

The European value proposition is based on the transition to insurance models operating on platforms and the responsible use of digitally-obtained data to offer the right products at the right timing.

The possibilities of scaling these business models with traction in a market of more than $700 million people, makes Europe a perfect territory in terms of potential size, big to obtain relatively fast and high returns for investors.

In addition, 3 of the 5 global reinsurers are based in Europe and they have taken a very proactive global role in innovation and in shaping the market.

Unfamiliar businesses in unfamiliar markets:

On this cluster, companies operate in different lines of business that either fulfill a specific market need or create new opportunities to the industry.

Pitzi is a smartphone insurance company that operates in Brazil due to traditional deficiency to attend the modern demand.
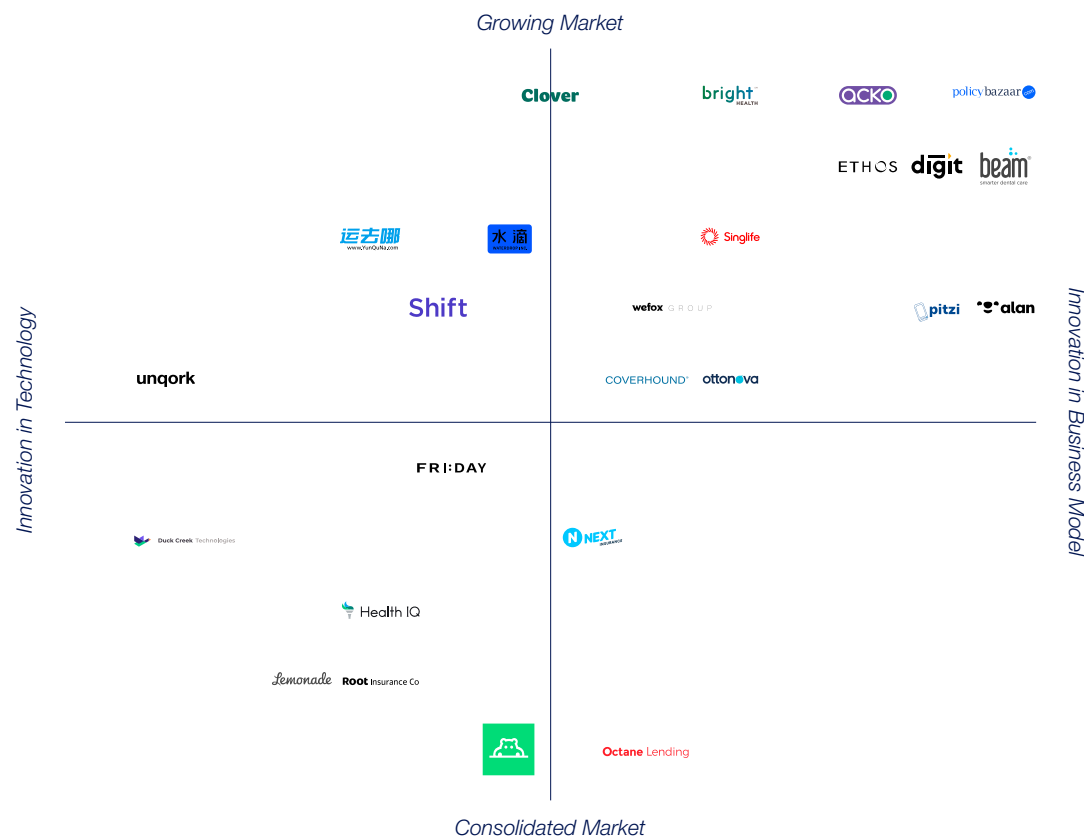
Beam insurtech offers dental care, using prevention and a digital platform to operate.

YunQuNa uses technology for shipping tracking and cargo in China.

Octane Lending is a lending platform that connects prime and subprime clients to car dealers.

Singlife created a whole financial ecosystem around insurance, providing wealth management and digital accounts.

Cross map. Market with type of Innovation.

Growing Market

Clover bright OCKO policy bazaar

ETHOS digit beam

运去哪 水滴 Singlife

Shift wefox GROUP pitzi alan

unqork COVERHOUND ottonova

FRI:DAY

Duck Creek Technologies NEXT

Health IQ

Lemonade Root Insurance Co

Octane Lending

Innovation in Technology

Innovation in Business Model

Consolidated Market

In the insurtech context, innovative business models and technology are complementary. In addition to that, some markets seem to grow others to consolidate.

However, one variable is more relevant than others for each case. In this map, the intensity of the considered variables are qualitative and not mutual exclusive in the horizontal axis.

The horizontal axis illustrated industry disruption related mainly because of business model or technology:

Innovation is driven because of technology innovation (using a specific technology for a specific need). Innovation is driven because of business model (technology is mature or not core to the business, but those are the first in addressing a specific need in a new business way).

On the vertical axis, the market structure is considered where the upper part signalized the relatively high potential growth and the lower is consolidation of the market. Bright Health, for example, shows growth given the market context mentioned.

Conclusions.

■

American Giants

The USA is drawing few insurtech players winners.
The 2019 funds were direct to one company per line of business.

●

Medicare

Aging population and budget cuts in public basic Medicare plans in the USA are fueling the funding to explore this market.

◆

Europe formation of Leaders

The European market differs from the American, given the structural barriers of expansion to achieve the same market size and the necessity for traction. Therefore, Europe is forming insurtech leaders in 2019 with large financial support.

◗

New markets

Indian giants distributors show lagged market compared to developed countries. They use validated business models in large scale in a high new potential market. Brazilian insurtech, Pitzi, is covering smartphone insurance -product offered by some of the Indian giants– showing the high demand for unusual products in emerging countries Chinese companies have specific business and technologies. For instance, YunQuNa uses technology applied for cargo shipping, widening the insurance opportunities.

▲

Tech empowering core insurer systems

Technology-focused Outlier companies have a different value added. Clients have being using their technologies internally and externally, creating competitive advantages and more barriers for new entrants. (See duck creek and Unqork in details in the full report).
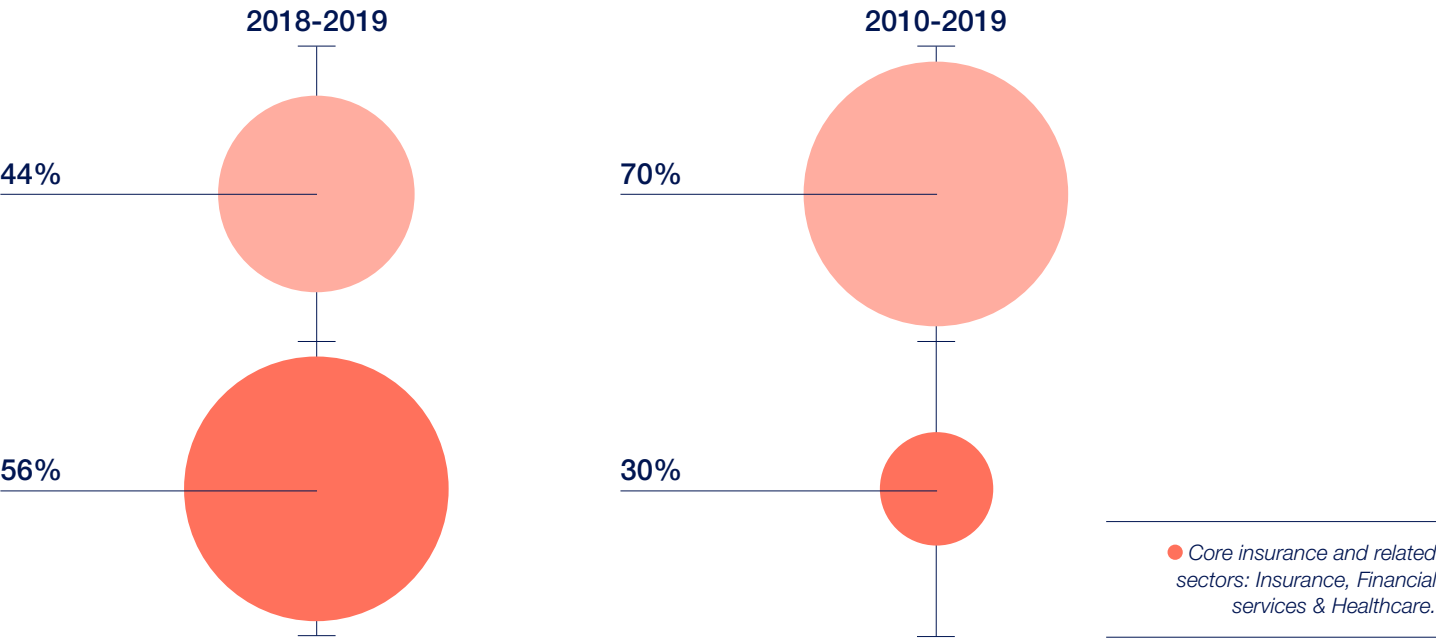
02

Insurers Doubling Investments in Insurtechs.

Startups invested by insurers.

Startups invested by insurers. Market share by sectors.

2018-2019

44%

56%

2010-2019

70%

30%

● *Core insurance and related sectors: Insurance, Financial services & Healthcare.*

Insurance companies double their investment in insurance and related sectors startups

Companies have different strategies at the time to invest in projects. Sometimes they do it motivated by a financial aim, like when they invest in startups which could produce great benefits regardless of the industry, and other times, they do it because of the potential of the company in the investor's sector in terms of money but mainly of market. Some startups don't need to generate rapidly benefits to get funds if they are innovative or disruptive.

According to the survey, some startups could find difficulties to be successful by themselves, for example, because of the lack of customer base or knowledge of the market. In this situation, traditional companies are the key factor.
In the insurance case, insurers have the network needed, including branches, brokers, agents, market knowledge and the clients trust.

Traditional insurance has been perceived as sleepy and conservative regarding the startups ecosystem in comparison, for instance, with retail or banking. However, this aspect has changed recently. In the last two years, insurance and other related sectors have doubled their market share in the insurers' total startups investments. This means that now insurers are more interested in investing in their core-business than in other industries, especially if we compare it with their performance of the last decade.

This fact makes sense when we take into account that it is not easy to be disruptive. Staff size and corporate culture are some of the main stoppers for insurers with regard to innovation. In this context, insurers have begun to see insurtechs more as a complement than as a threat.

Insurance companies double their investment in insurance and related sectors startups.

Ranking of investments: Money raised

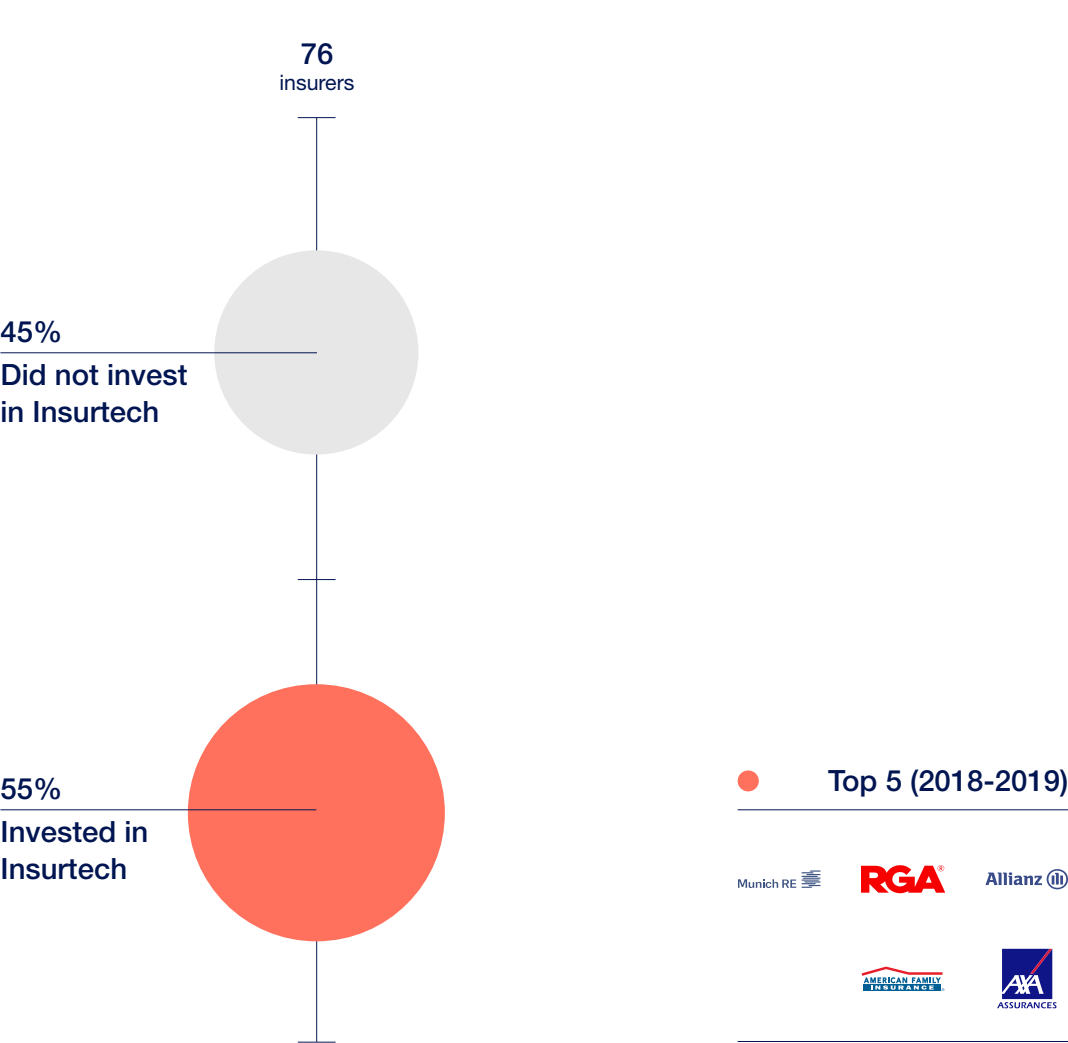| Rank	2010-2019	2018-2019
1	Transportation & Logistics	Insurance
2	Insurance	Healthcare
3	Healthcare	Transportation & Logistics
4	Finance	Finance
5	Industry	Software, Big Data & Analytics
6	Software, Big Data & Analytics	Banking
7	Retail & Fashion	Construction & Real Estate
8	Construction & Real Estate	Utilities
9	Utilities	Others
10	Automotive	Retail & Fashion
11	Others	Industry
12	Banking	Cybersecurity
13	Cybersecurity	Automotive
14	Media & Advertising	AI
15	Consumer, Goods & Services	Tourism & Hospitality
16	Telecommunications	Telecommunications
17	Tourism & Hospitality	Education
18	AI	Media & Advertising
19	Education	Consumer, Goods & Services

Ranking of investments: Number of deals

Rank	2010-2019	2018-2019
1	Healthcare	Healthcare
2	Others	Insurance
3	Software, Big Data & Analytics	Software, Big Data & Analytics
4	Industry	Finance
5	Consumer, Goods & Services	Others
6	Media & Advertising	Industry
7	Insurance	Cybersecurity
8	Education	Automotive
9	Finance	Construction & Real Estate
10	Retail & Fashion	AI
11	Utilities	Retail & Fashion
12	Cybersecurity	Banking
13	Construction & Real Estate	Consumer, Goods & Services
14	AI	Transportation & Logistics
15	Automotive	Education
16	Transportation & Logistics	Media & Advertising
17	Tourism & Hospitality	Utilities
18	Banking	Telecommunications
19	Telecommunications	Tourism & Hospitality

The fact that insurance companies have doubled their investment in insurtechs and related-sectors startups results evident when we compare the sectors with highest market share in the last decade with the ones in the last 2 years. Both the ranking by money raised and by number of startups, the insurance and related sectors have shown an increase in their positions regarding the insurers investments in startups.

As to money invested, insurers have changed their behavior in the last years, but not that much. However, if we pay attention to the number of deals, we can find that in the last years they have preferred to invest in startups related to the market that they work on and know very well. This is a proof of the maturity of the insurtech ecosystem, which now offers much more opportunities to the traditional companies of the market in terms of innovation, partnerships and alliances.

Participation in the insurtech ecosystem.

Main companies in the insurance market 2010-2019

76
insurers

45%
Did not invest
in Insurtech

55%
Invested in
Insurtech

● Top 5 (2018-2019)

Munich RE   RGA   Allianz ⑪

AMERICAN FAMILY INSURANCE   AXA ASSURANCES
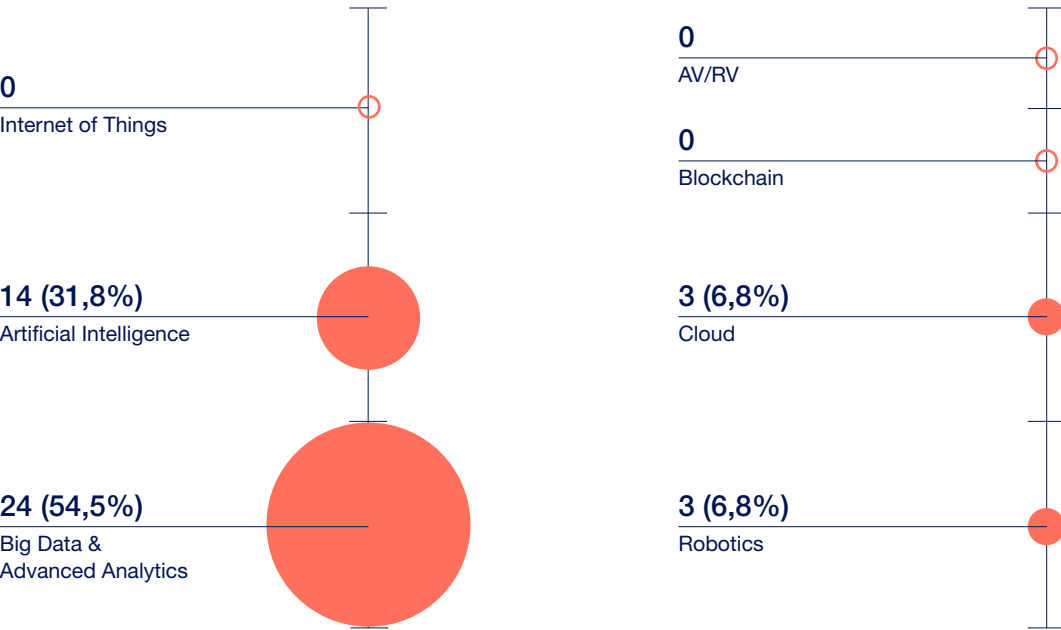
Insurtechs complement traditional insurance

Most of insurers have participated at least once in the insurance startup ecosystem during 2010-2019.

Half of the insurance companies which have invested in insurtechs have their headquarters in Europe and prefer to invest in funds for American startups.

European insurers, as well as Asian and American ones, are inclined to invest in Cloud, Mobile & Applications and Artificial Intelligence. This fact is also true for the whole insurtech ecosystem in 2019: 90% of total insurtech investments of the year went to startups based on these technologies.

Insurers investments: Techs in insurtechs, present and future.

Taking into account the following exponential technologies, please evaluate the impact/relevance for your company in the next 3 years.

0
Internet of Things

0
AV/RV

0
Blockchain

14 (31,8%)
Artificial Intelligence

3 (6,8%)
Cloud

24 (54,5%)
Big Data &
Advanced Analytics

3 (6,8%)
Robotics

Following the sample, in the last two years insurers' interests, in terms of money and also startups invested, have been mainly focus in Cloud, Mobile & Applications and Artificial Intelligence.

The importance of Cloud, Mobile & Applications is backed up by the fact that nowadays insurers are migrating their applications to the cloud with the objective of mainly offering cost reduction through the flexibility, reliability and security that this technology implies.
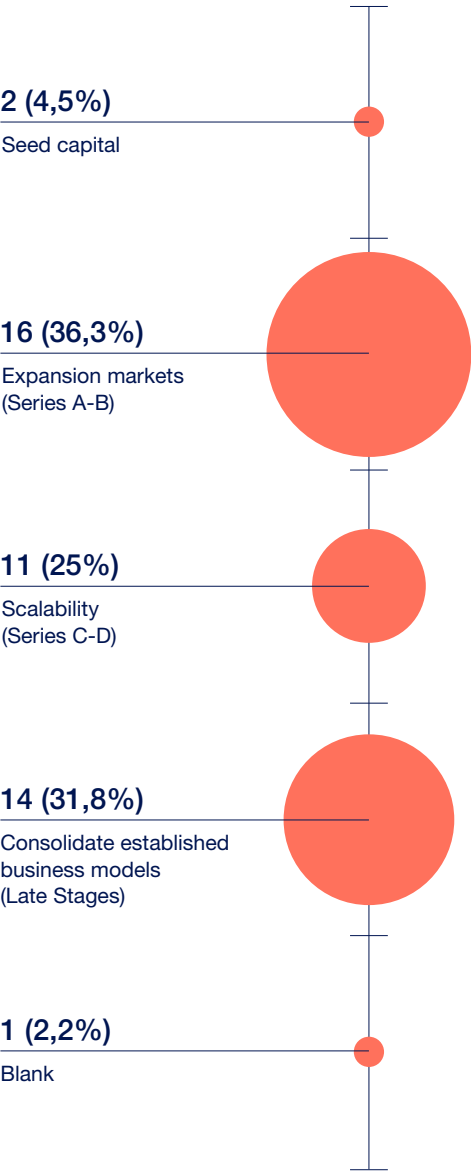
However, according to the survey, the vast majority of insurers believe in Big Data & Analytics and Artificial Intelligence as the main technologies to impact their companies in the near future.

Deals by main technologies

Survey answered by 44 CEOS and executives of insurance companies worldwide

● Cloud, Mobile & Technology
● Artificial Intelligence
● Big Data & Backend
● Internet of Things

	2014	2015	2016	2017	2018	2019
30						
25						
20						
15						
10						
5						
0						
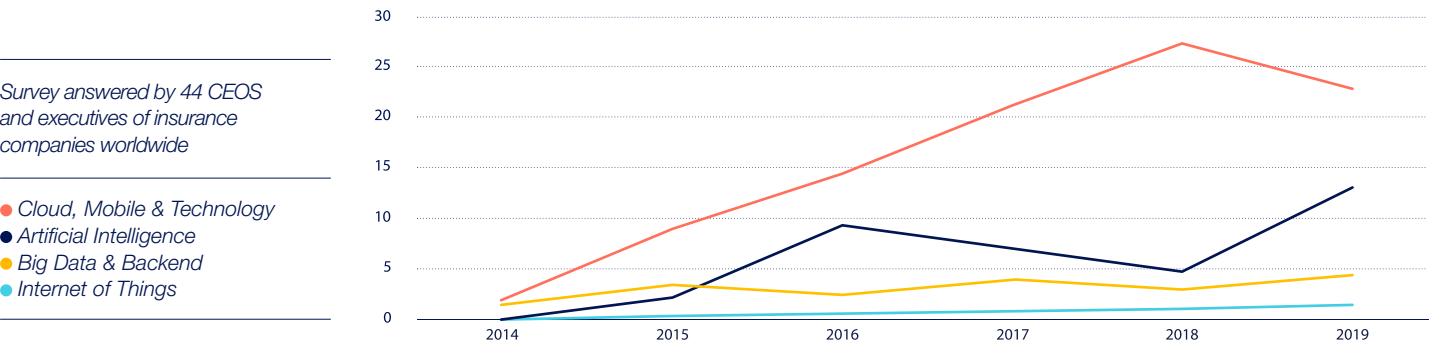
Deals: Insurers & Insurtechs.

At what level or levels of maturity does your company prefer to invest in a startup?

2 (4,5%)
Seed capital

16 (36,3%)
Expansion markets
(Series A-B)

11 (25%)
Scalability
(Series C-D)

14 (31,8%)
Consolidate established
business models
(Late Stages)

1 (2,2%)
Blank

Initial and Scalability, preferred funding rounds

This year, the opinion of the insurers of our survey is aligned with our findings regarding preferred levels of targets' maturity. Initial and scalability series funds concentrate the majority of the funding rounds of the Insurtechs invested by them.

While historically insurers preferred to invest in early stages like seed capitals and series A, now it seems to be that they are interested in more mature series like expansion markets levels with those startups related to its core business.

*Survey answered by 44 CEOS
and executives of insurance
companies worldwide*

Conclusions.

Investments

Insurance Companies have doubled their investment in insurance and related sectors startups. Staff size and corporate culture are some of the main stoppers for insurers with regard to innovation. In this context, insurers have begun to see insurtechs more as a complement than as a threat.

The Insurance startup Ecosystem

Most of insurers remain interested in participating in the insurance startup ecosystem.

Big Data & Analytics

Insurers are inclined to invest in Cloud, Mobile & Applications and Artificial Intelligence. However, in the near future, most of them are of the opinion that Big Data & Analytics will have a greater impact in the industry.

Insurers have predilection

Insurers have predilection to invest in cross business lines insurtechs. Regarding the rest of business lines, their market share is similar. Commercial has been the business line with the best performance ranking up over the years.

Initial & Scalability series

Initial and Scalability series funds are the preferred levels of insurtechs' maturity. These levels concentrate the majority of the funding rounds of the insurtechs invested by insurers. It seems to be that they are more interested in more "mature" series with those startups related to their core businesses.

The Auto Insurance Dilemma.

Big Data & IoT: Threats or Opportunities?

The future of Auto insurance.

Big Data and IoT are disrupting the future of Auto insurance. The technology is transforming the industry with billions of connected sensors that enable safer roads and autonomous cars, creating a serious threat for traditional Auto insurance. However, vehicles with level 4 and 5 of autonomy are expected to have only 10% of the market by 2030.

Technology as an opportunity.

Although technology is a threat on the future, it represents a huge opportunity for disruption in the present (this current scenario was explored by insurers included in this session). For instance, the measurement of the driver behaviour allows new products such as UBI usage-based insurance or pay-per-mile insurance, that not only transforms the way insurance companies make underwriting and pricing decisions, but also increases the interaction with customers, creating more visibility on they behaviour and respective risks (helping them to save money).

Smart Mobility.

How Insurtechs are reshaping the Smart Mobility ecosystem

78% of the investment in the startups of this ecosystem (a total of 153 companies) in the last two years was concentrated in Root Insurance, Cambridge Mobile Telematics, Octane Lending and Friday. Only the first two concentrated more than 50% of the investment in the last two years.

In 2019, the strongest entry was Friday, which in its first year received the amount of $127M. In the case of Metromile, on the other hand, no investment was registered in 2019. It highlights the fact that two companies with a pay-per-kilometer model are ranked in the top five, taking into account that the first one operates in the USA and the other one in Germany.

Keep an eye on

Root Insurance Co	**CAMBRIDGE** MOBILE TELEMATICS	**FRI:DAY**
$350M 🇺🇸	$500M 🇺🇸	$127M 🇩🇪

How Telecoms, VCs and Insurers are enabling the disruption

In Telematics, the IoT technology is leading the disruption in the Auto field and receiving huge amounts of investment from Telecoms companies such as SoftBank and Verizon, because of the importance of data in their strategy around the connected car (e.g. cross-selling activities).

Venture Capitals are leading important investments in usage-based insurance companies. For instance, DST Global is investing in Root and Berkshire Hathaway in GEICO's smartphone app (DriveEasy), positioning them in a market where insurers are important stakeholders -the participation of Progressive in Snapshot program and the new investment from Swiss Baloise in Friday.

Keep an eye on

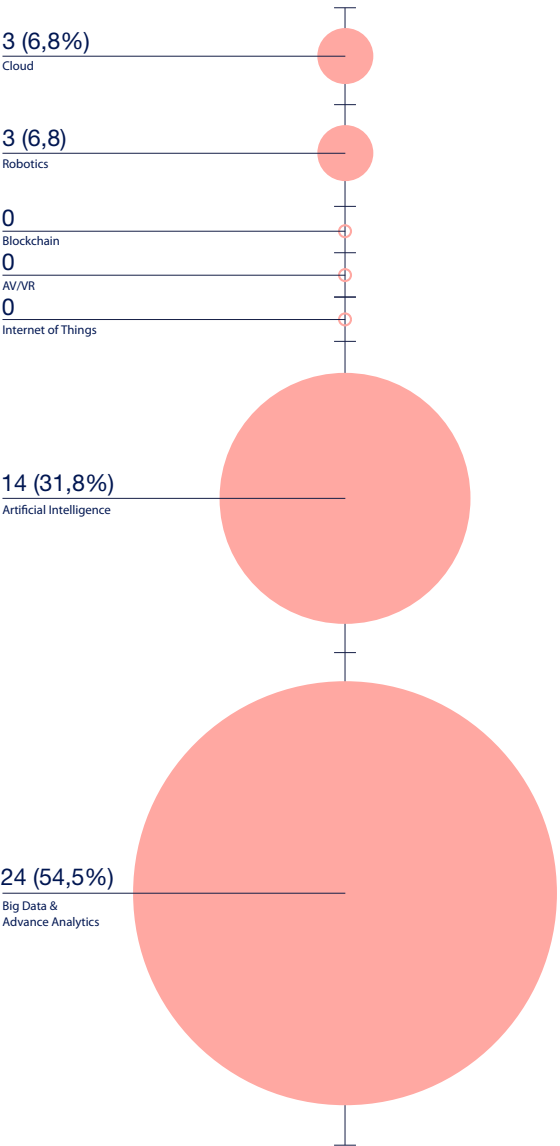| verizon✓	SoftBank	Baloise Insurance
BERKSHIRE HATHAWAY INC.	DST	PROGRESSIVE

Survey results.

Considering the results of the survey, the vast majority believe Big Data & Advanced Analytics are the main technologies to impact their companies in the next 3 years. From the CEOs' perspective, Auto is the line of business to be most intensively disrupted in the near future.
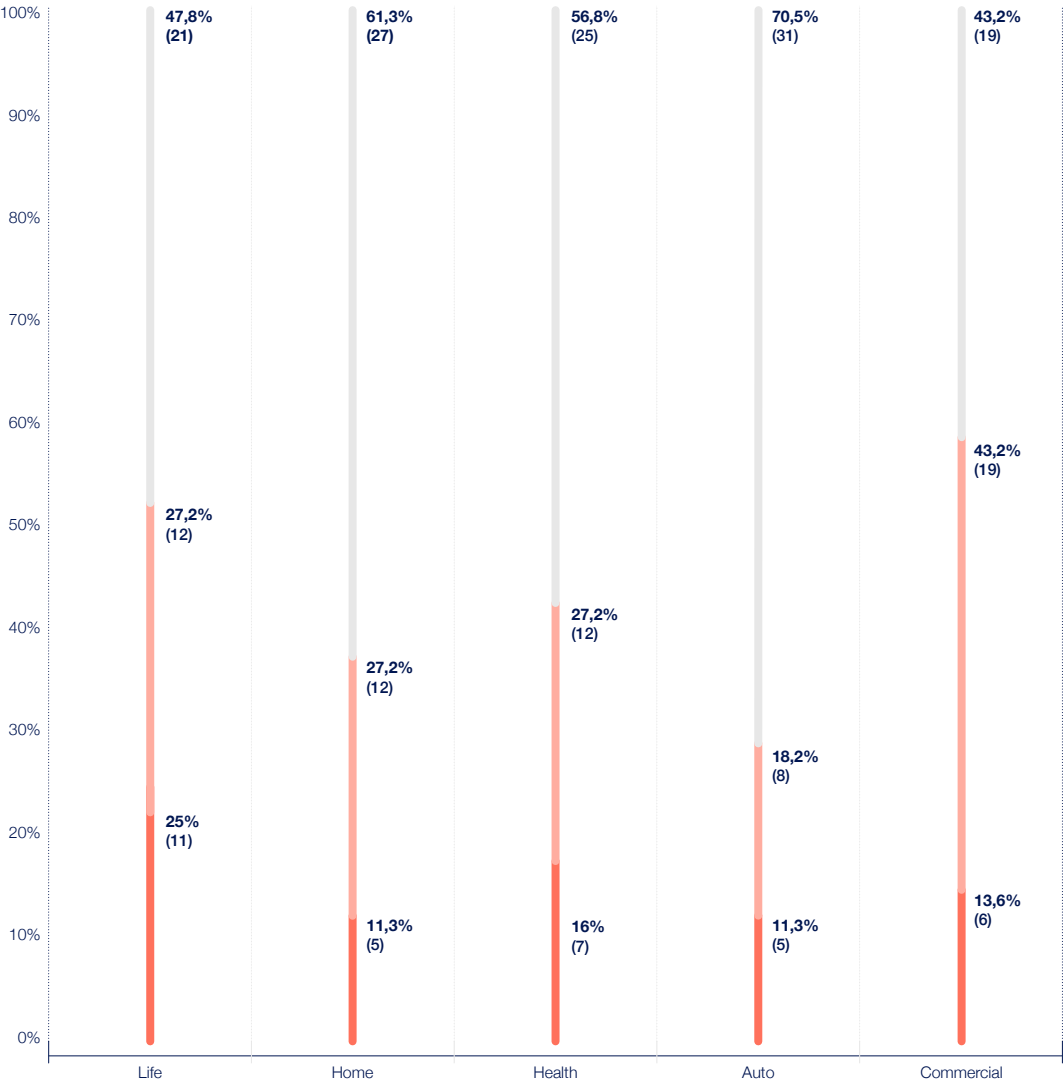
Impact/relevance of exponential technologies

Taking into account the following exponential technologies, please evaluate the impact/ relevance for your company.

3 (6,8%)
Cloud

3 (6,8)
Robotics

0
Blockchain

0
AV/VR

0
Internet of Things

14 (31,8%)
Artificial Intelligence

24 (54,5%)
Big Data &
Advance Analytics

Disruption in insurance lines of business

● Level 1-2
● Level 3
  Level 4-5

*Survey answered by 44 CEOS
and executives of insurance
companies worldwide*

*Survey answered by 44 CEOS
and executives of insurance
companies worldwide*

	Life	Home	Health	Auto	Commercial
100%	47,8% (21)	61,3% (27)	56,8% (25)	70,5% (31)	43,2% (19)
	27,2% (12)				43,2% (19)
			27,2% (12)		
		27,2% (12)		18,2% (8)	
	25% (11)				13,6% (6)
		11,3% (5)	16% (7)	11,3% (5)	

Insurtech proportional investments by line of business 2012-2019.

In the Auto line of business, the investment direct to Non Outliers and Outliers has the same trend, signaling this line of business as preferential for investors in a mature stage or for entering to this sector in an early stage as well.
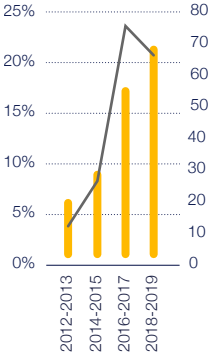
Non Outliers
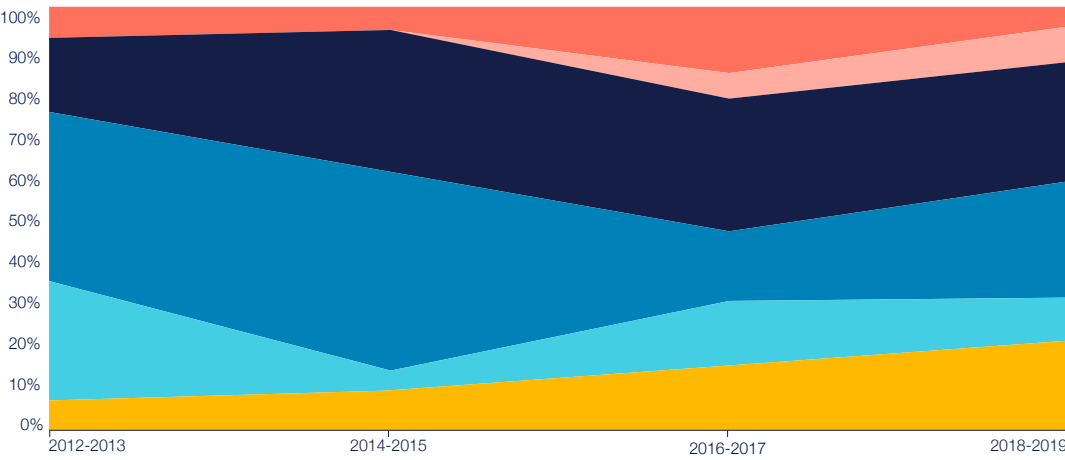
Outliers
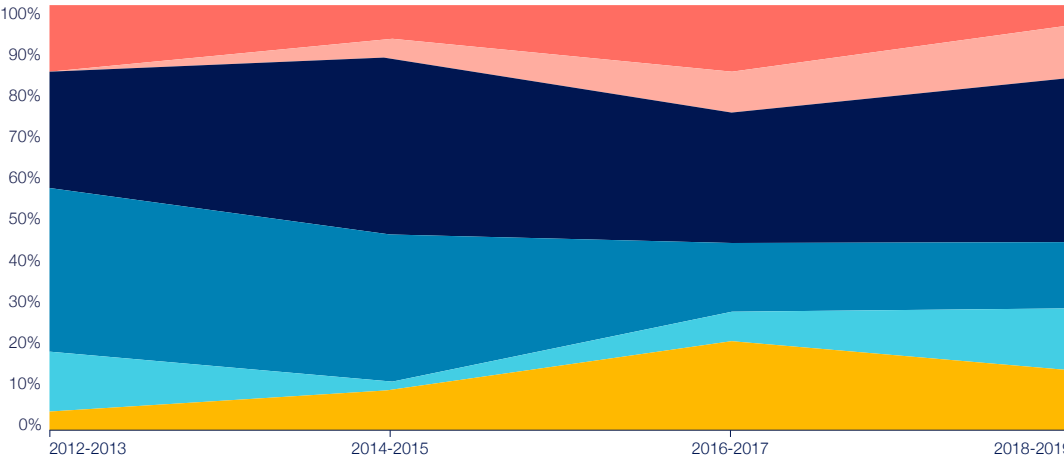
Insurtech proportional investments by line of business 2012-2019

	2012-2013		2014-2015		2016-2017		2018-2019	
1	Cross	●	Cross	●	Health	●	Health	●
2	Commercial	●	Health	●	Auto	●	Cross	●
3	Health	●	Auto	●	Cross	●	Auto	●
4	Auto	●	Commercial	●	Life	●	Commercial	●
5	Life	●	Life	●	Commercial	●	Home	●
6	Home	●	Home	●	Home	●	Life	●

Auto

Insurtech proportional investments by line of business 2012-2019

	2012-2013		2014-2015		2016-2017		2018-2019	
1	Cross	●	Health	●	Health	●	Health	●
2	Health	●	Cross	●	Auto	●	Cross	●
3	Commercial	●	Auto	●	Cross	●	Auto	●
4	Life	●	Life	●	Life	●	Home	●
5	Auto	●	Home	●	Commercial	●	Commercial	●
6	Home	●	Commercial	●	Home	●	Life	●

Auto
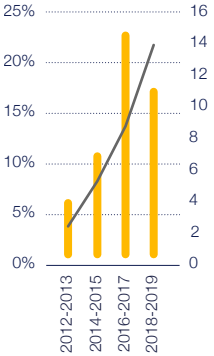
━━ Percentage of Money raised in the period per line of business
── Number of deals

The mapping shows S curves in the number of deals in every line of business for Non Outliers enforcing the maturity of the industry.

━━ Percentage of Money raised in the period per line of business
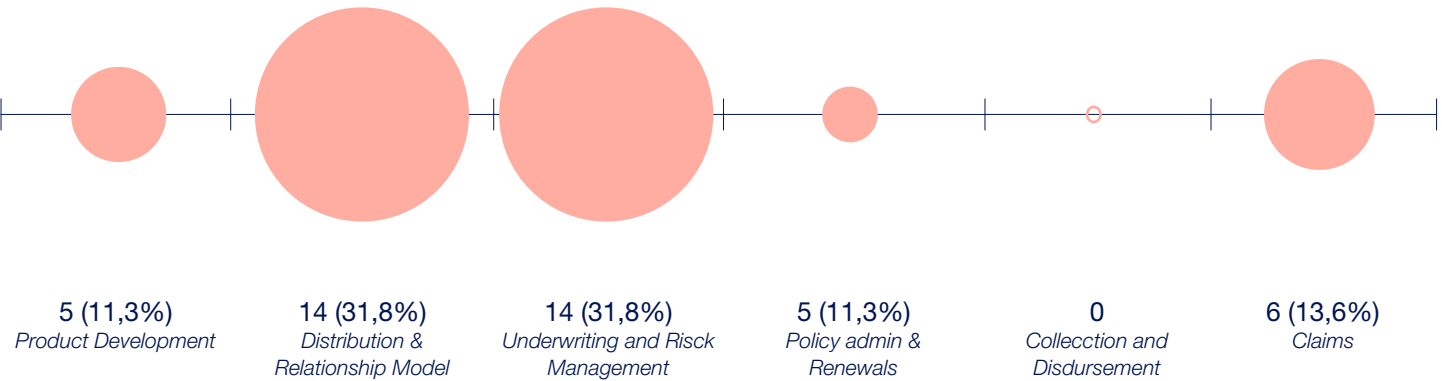── Number of deals

The mapping shows S curves in the number of deals in every line of business for Non Outliers enforcing the maturity of the industry.
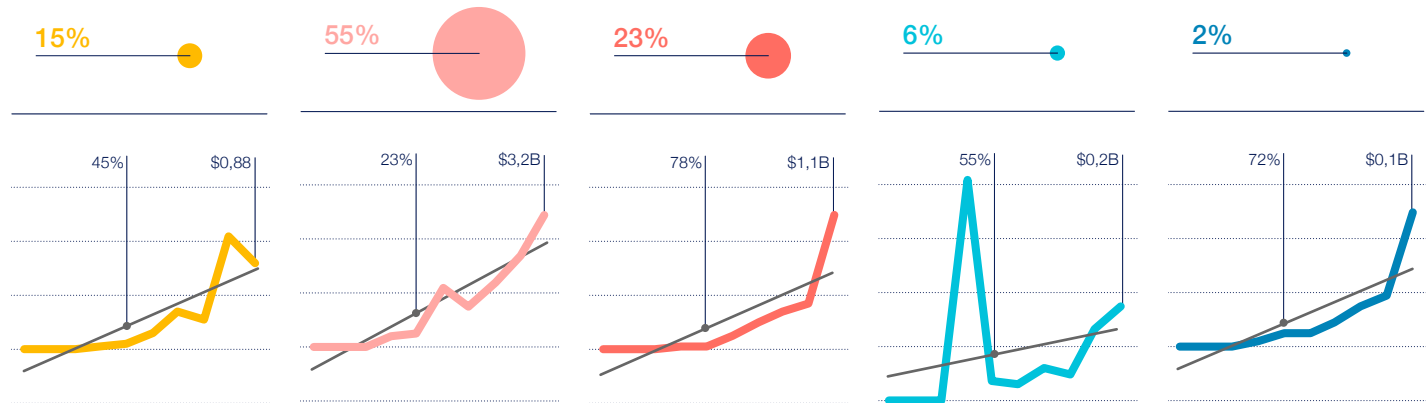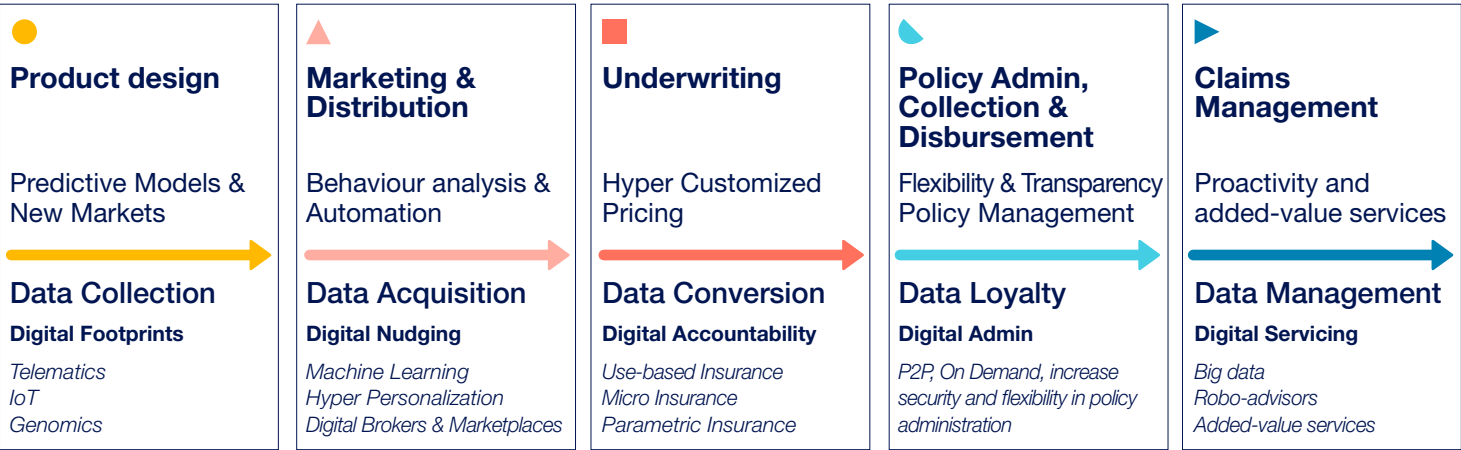
Survey results.

Survey respondents consider Distribution and Underwriting as the highly affected by technologies in their companies, while Product development and Claims are still discreet to use exponential technologies, giving the impression that is not trivial to translate customers data into products.

Exponential technologies in the value chain

In what specific areas of the value chain do you think your Company will use those technologies in the next 3 years?

5 (11,3%)	14 (31,8%)	14 (31,8%)	5 (11,3%)	0	6 (13,6%)
Product Development	*Distribution & Relationship Model*	*Underwriting and Risck Management*	*Policy admin & Renewals*	*Collecction and Disdursement*	*Claims*

These insights are totally aligned with the investment trends of the value chain, where Distribution and Underwriting are the most representative areas.

Product design	**Marketing & Distribution**	**Underwriting**	**Policy Admin, Collection & Disbursement**	**Claims Management**
Predictive Models & New Markets	Behaviour analysis & Automation	Hyper Customized Pricing	Flexibility & Transparency Policy Management	Proactivity and added-value services
Data Collection	**Data Acquisition**	**Data Conversion**	**Data Loyalty**	**Data Management**
Digital Footprints	**Digital Nudging**	**Digital Accountability**	**Digital Admin**	**Digital Servicing**
Telematics *IoT* *Genomics*	*Machine Learning* *Hyper Personalization* *Digital Brokers & Marketplaces*	*Use-based Insurance* *Micro Insurance* *Parametric Insurance*	*P2P, On Demand, increase security and flexibility in policy administration*	*Big data* *Robo-advisors* *Added-value services*
15%	55%	23%	6%	2%
45% $0,88	23% $3,2B	78% $1,1B	55% $0,2B	72% $0,1B

Conclusions.

Telecoms are investing huge amounts of money in Telematics. Verizon bought Fleematics by $2B and recently SoftBank led the $500M investments in Cambridge Telematics. Telecom envisions connected car as its new device and data as an important opportunity for cross-selling activities.

Usage-based insurance is the new reality for the Auto insurance field. Progressive auto insurance company leader in the usage-based insurance through the Snapshot program (offering its customers 30% discount premium based on their driving) has grown more than 50% in the last three years- $30B in revenue in 2018 and $40B in 2019. The investments in new players, such as Root and Friday, represent one of the most relevant transactions in 2019. Global usage-based- nsurance market forecast has a healthy CAGR of 20% in the 2019-2026 period.

Important investments from Insurance companies have been made in this type of insurtech companies because of the capability to improve their core business areas: Underwriting and Risk Management. Metromile secured $90M in the end of 2018 from Tokio Marine and Intact Financial, Friday raised $127M, in which $75M were from Swiss Baloise, majority shareholder of the company.

Giant Venture Capital firms such as Berkshire Hathaway and DST Global are leading important investments. Initiatives like Drive Easy allow them to compete with insurance companies in one of the fastest growing uses of technologies based on data in insurance so far.

Survey respondents are totally sensitive and aligned with this transformation identifying Auto Insurance as one of the most vulnerable line of business for being disrupted such as underwriting as one of the most important areas in this transformation.

Although Claims management is an interesting area for being improved from our survey, respondents still have discreet investments in this value chain; signal that technology is not mature enough to disrupt this area.

Medical Boosting in the Insurtech in the USA.

New ways to ensure people's health in constantly changing huge markets like the American or Chinese.

Healthy Living.

How Insurtechs are reshaping the Healthy Living ecosystem

70% of the investment in startups of this ecosystem (a total of 69 companies) in the last year was concentrated by four companies: Bright Health, Clover, Waterdrop and Singlife. In the case of the US, their respective significant investments affirm how investors are visualizing a better healthcare experience to meet patients' demands.

Both Asian startups Waterdrop and Singlife are betting hard on the disruption of the Health insurance industry by offering a digital experience powered by smart technologies.

New health startups like Nadia, Hey Healthcare and Osana emerged during 2019.

Keep an eye on

Clover	bright HEALTH	水滴 WATERDROP INC.
$500M 🇨🇳	$635M 🇺🇸	$145M 🇨🇳

The insurtech companies of the Health line of business are the ones that raised the most investment in the entire period analyzed. In fact, the two companies that received the most funding were Oscar and Bright Health, both American. Together, they achieved a total of $2.3B, which represents almost 13% of the total investment in the last 10 years. If the investment received by Clover (the fourth in the ranking) is also taken into account, a total of $3.2B is reached, that is, 18% of the total.

This data indicates that there is a lot of interest in this type of companies in a market like the Amerian, due among other factors to the impact of the Medicare program, which provides users medical coverage in a more efficient way.

If we analyze this data only in 2019, we see how only two companies, Bright Health and Clover, received 22% of the total investment, which represents 55% of the top 5 in this year.

How American TechGiants are reshaping the Healthy Living ecosystem?

TechGiants, throught investments, in-house projects and collaborations with other ecosystem's players, are facilitating users to fulfilling their Healthcare needs in a more integrated experience. Their technological capabilities and their networking power make them a relevant part of the ecosystem to process and analyze big quantities of data for offering personalized Healthcare services and to prevent and predict risks in a more accurate way.

Also, their participation in a wide range of Health-related projects like biotechnology, healthy eating, genomics, fertility, healthy living or research for the cure of multiple diseases is key to invigorate this ecosystem.

Keep an eye on

Alphabet	23andMe	Calico	verily	fitbit	Google Health	FOUNDATION MEDICINE
amazon		HEALTH NAVIGATOR	care	HAVEN	WHOLE FOODS MARKET	GRAIL
facebook			CTRL-Labs	hello doctor		HALO
Apple	Spectral Edge	TUEO HEALTH	beddit	GLIMPSE	RareLight	HL7 FHIR / WATCH

How TechGiants are reshaping the Healthy Living ecosystem.

Impact/relevance of exponential technologies.

Expected disruption in Health
How do you think disruption is going to evolve in each business line?

- Level 1-2
- Level 3
- Level 4-5

Alphabet, through its investments, is exploring areas such as biotechnology, healthy eating, genomics, fertility, healthy living or research for the cure of multiple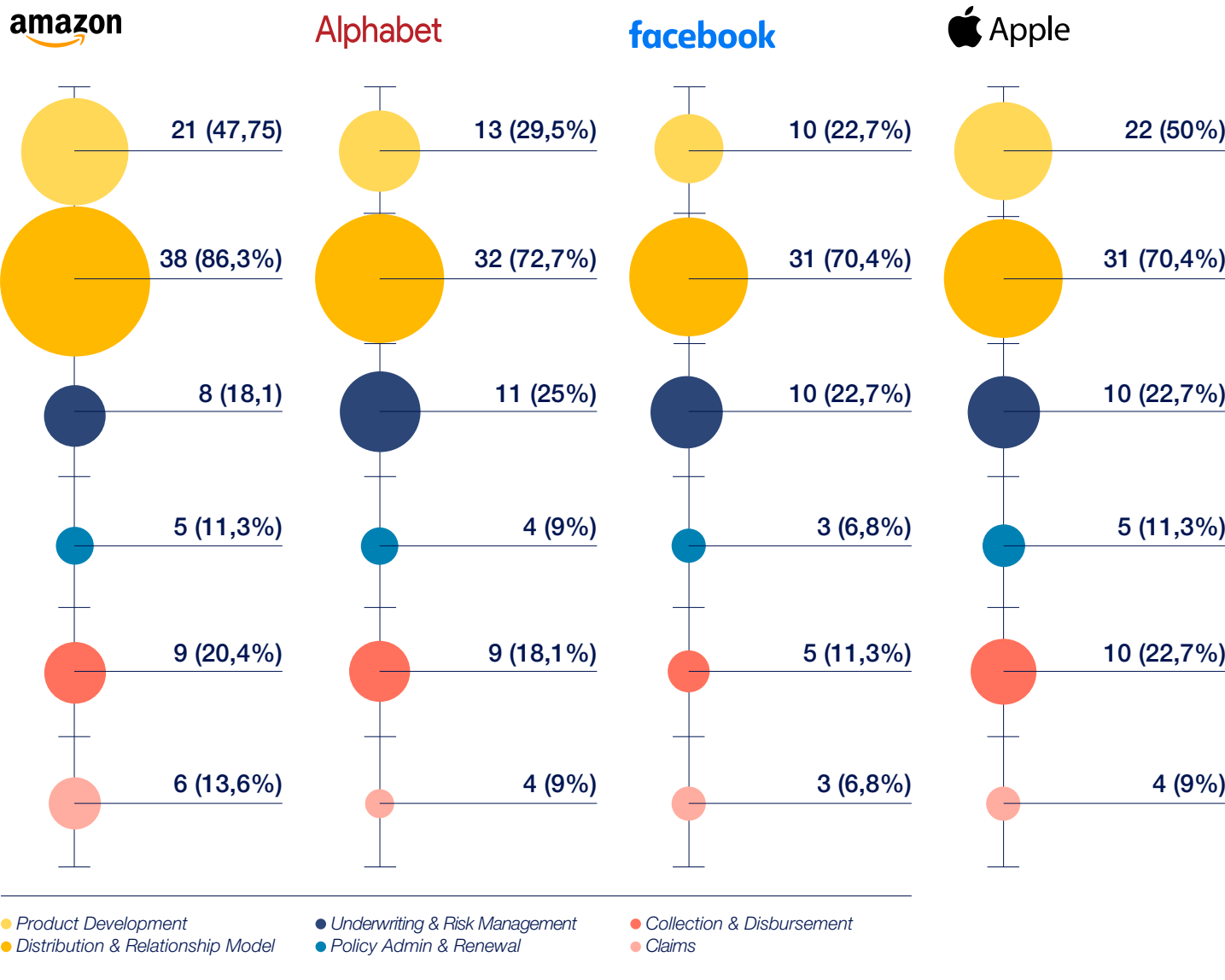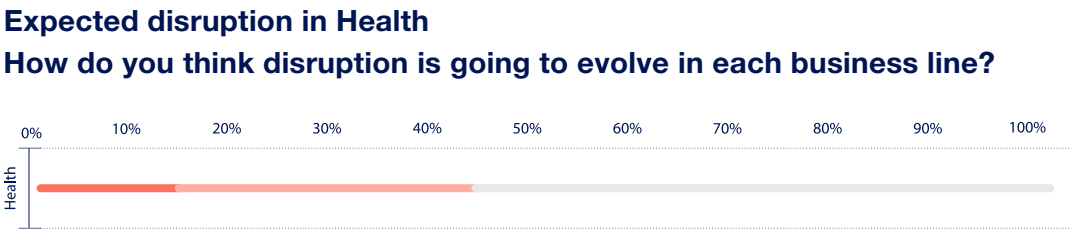 diseases. GV, previously Google Ventures, has invested in Oscar (one of the most important insurtechs worldwide). Alphabet now leads the investment in Oscar's last round (474 million), and the head of the YouTube platform is part of its board of directors. Alphabet has done important investments in Verily (also known as Google Life Science) to improve prevention of diseases and also in Calico, a company specialized in research of medical solutions.

They are also investing in Fitbit (Wearables), Verily (life-science research), 23andMe (genomics) and Doctor on Demand (telemedicine).

Most invested startups of our study by Alphabet 2010-2019

Alphabet

| oscar ♥ 🇺🇸 | Clover ♥ 🇺🇸 | Lemonade 🏠 🇺🇸 |
| unqork 💼 🇺🇸 | ETHOS ☂ 🇺🇸 | |

ETHOS   23andMe   Calico   EQRx   IMPOSSIBLE   Clover   Google Health   one medical   magenta

DECIBEL THERAPEUTICS   kindbody   FOUNDATION MEDICINE   soylent   fitbit   MultiPlan   vida   practo   verily

amazon

| 21 (47,75) |
| 38 (86,3%) |
| 8 (18,1) |
| 5 (11,3%) |
| 9 (20,4%) |
| 6 (13,6%) |

Alphabet

| 13 (29,5%) |
| 32 (72,7%) |
| 11 (25%) |
| 4 (9%) |
| 9 (18,1%) |
| 4 (9%) |

facebook

| 10 (22,7%) |
| 31 (70,4%) |
| 10 (22,7%) |
| 3 (6,8%) |
| 5 (11,3%) |
| 3 (6,8%) |

** Apple**

| 22 (50%) |
| 31 (70,4%) |
| 10 (22,7%) |
| 5 (11,3%) |
| 10 (22,7%) |
| 4 (9%) |

- Product Development
- Distribution & Relationship Model
- Underwriting & Risk Management
- Policy Admin & Renewal
- Collection & Disbursement
- Claims

USA Insurtechs Investment in 2019.

20% of the investment received by insurtechs in 2019 went to 4 Health companies operating in the USA.

2019

$1245M $6335M

bright HEALTH
$650M   🇺🇸

Clover
$500M   🇺🇸

beam smarter dental care
$55M   🇺🇸
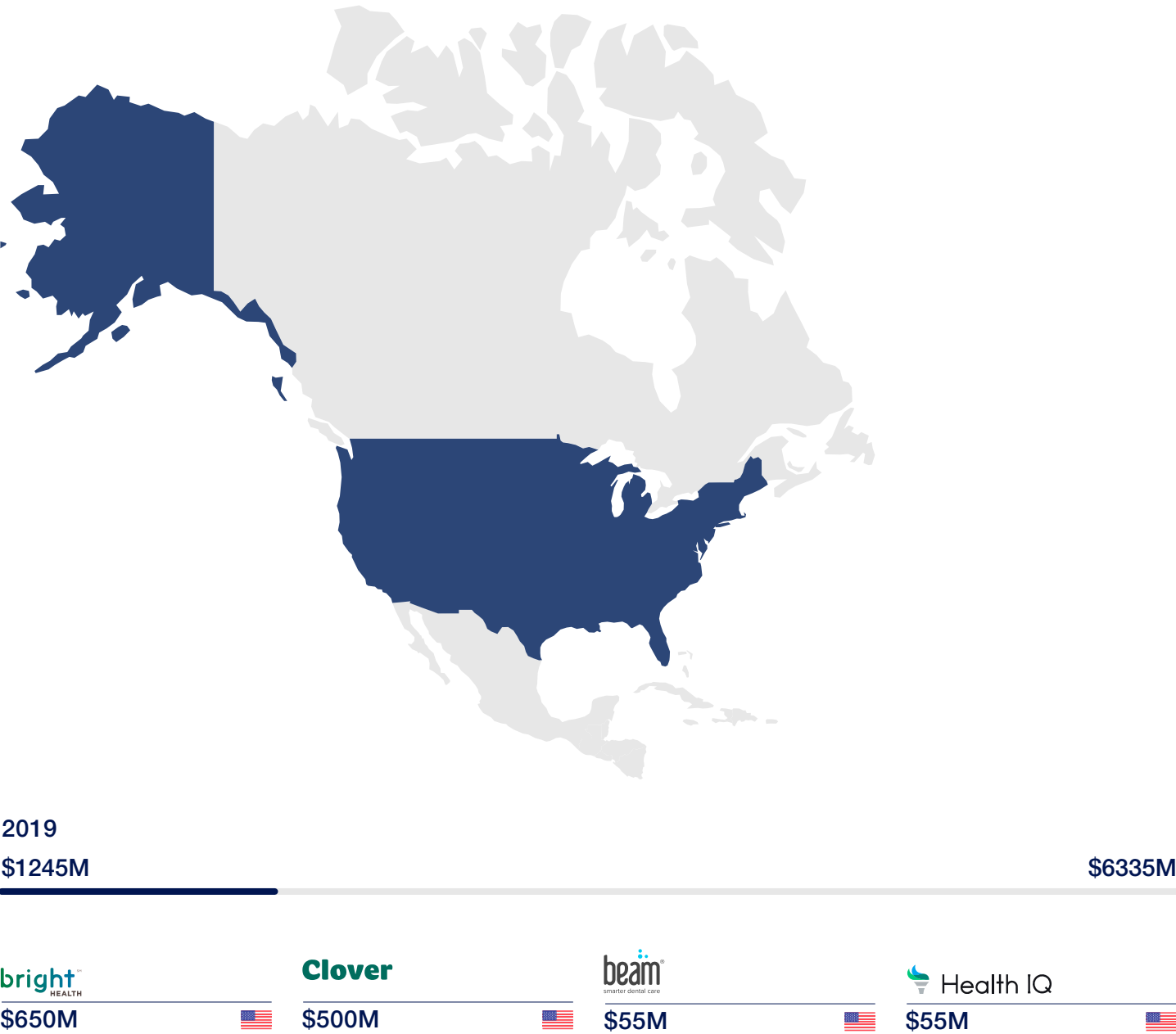
✈ Health IQ
$55M   🇺🇸

Conclusions.

◼

Healthy Living

In 2019, funds directed to American insurtechs were concentrated in Healthy Living, draining exceptional amounts of funds to this ecosystem.

◗

Medicare Program

Companies and technologies related to the Medicare Program were one of the biggest bets of the year by several large Venture Capital firms (NEA, Andersen Horowitz, Berkshire Hathaway..).

▲

TechGiants

TechGiants, owners of the customer's data, are investing in Healthy Living-related technologies and businesses. Alphabet, for instance, was responsible for investments in genomics, IoT and other companies linked to this ecosystem.

●

Population

Proportion of eldery in global population is increasing rapidly and new healthcare plans suchs a Clover are fitting this fast growing market.

◼

Beam

Beam is the only dental insurtech to receive substantial funds in USA. It might be an evidence of the reasonable potential this market for the following periods.

05

Emerging Markets for Leading Ecosystems.

Emerging Markets.

Emerging markets, the great opportunity to lead ecosystems.

How Insurtechs are evolving in emerging markets?

Emerging markets are evolving to become the first leaders to disrupt the domestic insurance industry. India concentrated funds in three cross distributors (Digit insurance, policybazaar and acko), while Africa found in micro-insurance the opportunity to provide healthcare services to excluded customers.

In Asia, Waterdrop is disrupting the Health insurance industry by offering a digital experience powered by smart technologies, gaining also the interest of investors due to the potential that the Chinese large market represents.

These insurtechs concentrated more than $1B in total funds, coming from TechGiants and global relevant investors.

Keep an eye on

acko	**BIMA**	**Singlife**
$107M	$90M	$173M
policybazaar.com	**carepay**	**水滴**
$500M	$45M	$145M

The so-called emerging markets are beginning to take off. The large number of people living in these territories, together with the growing needs they have, makes the insurtechs related to Mobility and Health ecosystems have an increasing weight.

On the other hand, large companies in the Asian continent (Baidu, Alibaba, Tencent and Rakuten) are making large investments in the region, but they are also making large operations abroad, in Europe and the United States. Also worth mentioning are investors such as the Japanese SoftBank, which invests in numerous companies, both directly related to the insurance sector, as well as companies in other industries or with new technology companies.

There are also examples such as BIMA, which is attracting a large investment in the African continent, where the need to access insurance products makes new business models appear, such as microinsurance or insurance on demand, which are requested and used by the users.

Investors are exploring emerging markets

Amazon and Tencent are investing in India through insurtechs. The TechGiants are interest in the potential of the Indian market, that have been growing with the internet access, and the reasonable technology of Indian distributors.

In parallel, insurance companies increase their participation in the region by following on investments or portfolio expansion. For instance, Sumitomo Life is starting to operate in emerging markets with important investments such as Allianz X in BIMA.

Keep an eye on

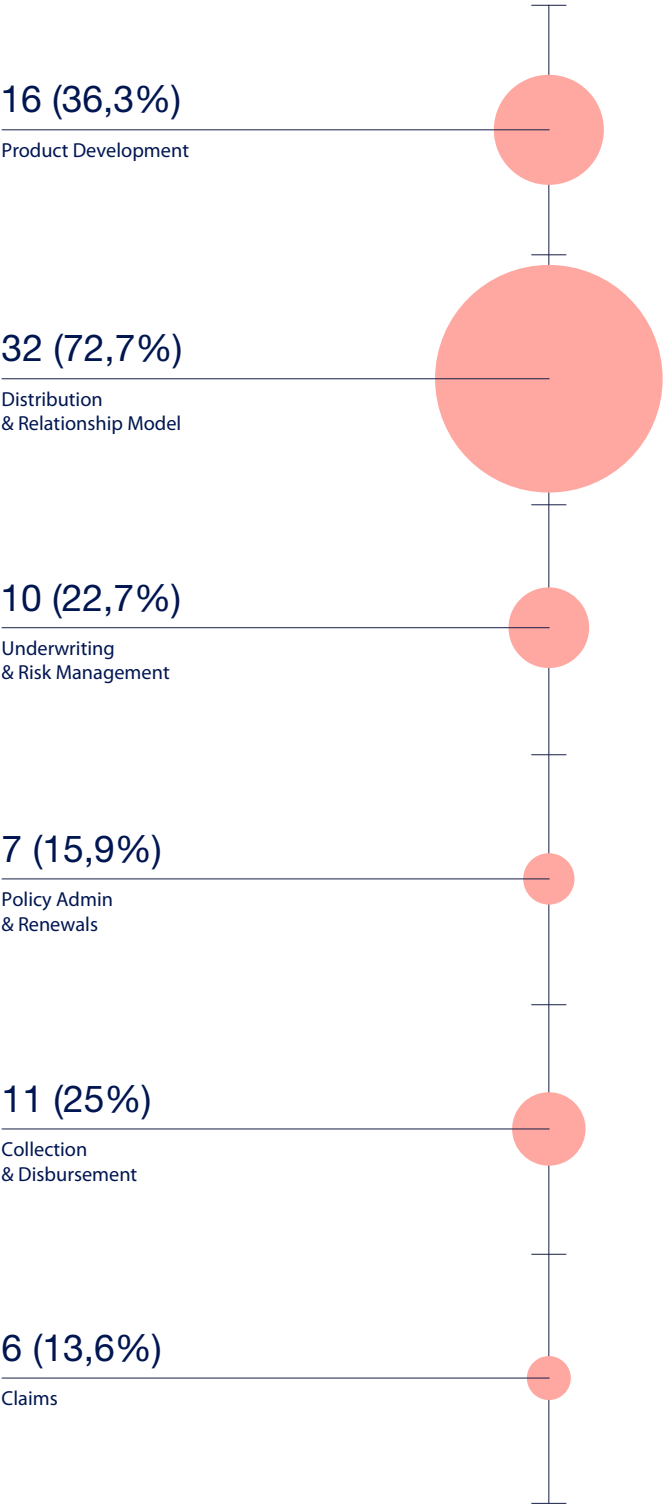|	
amazon	**SUMITOMO LIFE**
Tencent 腾讯	**X** A company of Allianz

TechGiants' Impact

The insurance industry perception of Amazon's and Tencent`s impact by value chain does not only represent their natural strength for distribution, but also reflects the solid investments of 2019 made by them in Indian Giants.

AMAZON: In which of the following areas of the value chain do you think there will be a greater impact?
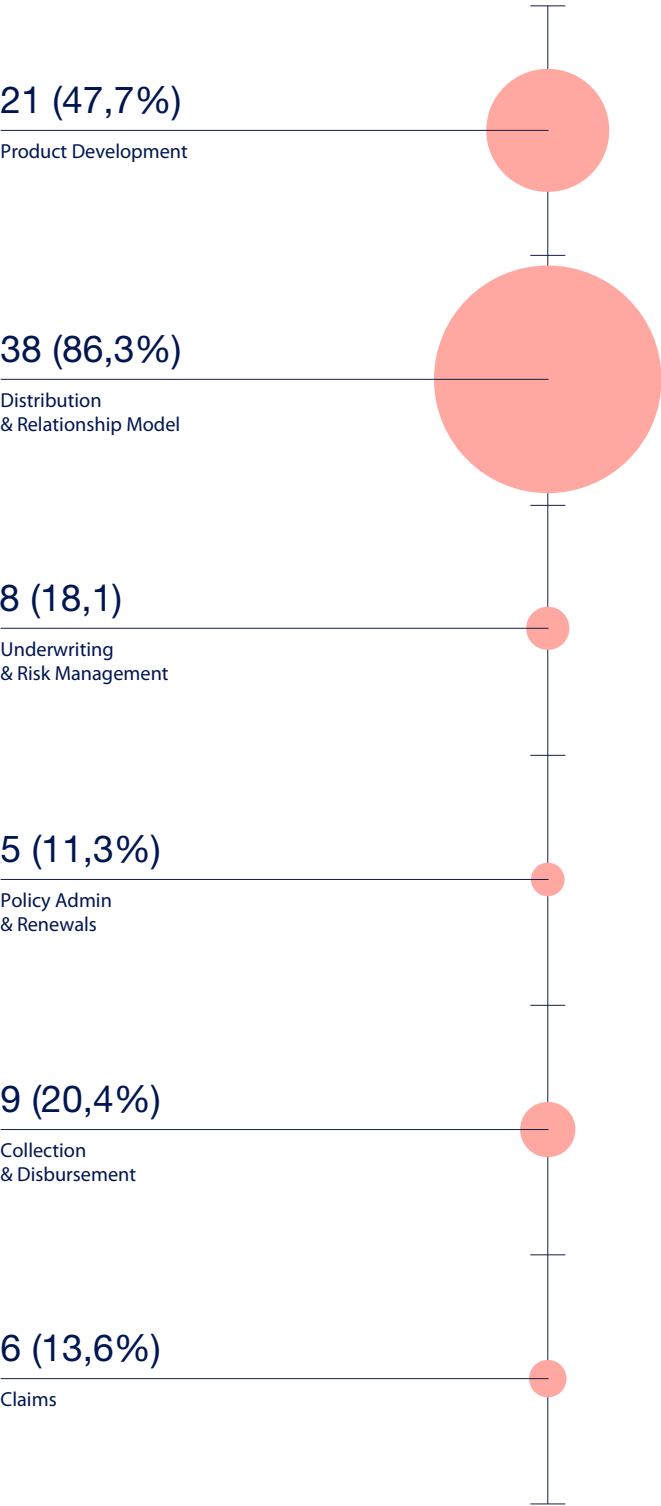
TENCENT: In which of the following areas of the value chain do you think there will be a greater impact?

AMAZON	TENCENT
21 (47,7%) Product Development	**16 (36,3%)** Product Development
38 (86,3%) Distribution & Relationship Model	**32 (72,7%)** Distribution & Relationship Model
8 (18,1) Underwriting & Risk Management	**10 (22,7%)** Underwriting & Risk Management
5 (11,3%) Policy Admin & Renewals	**7 (15,9%)** Policy Admin & Renewals
9 (20,4%) Collection & Disbursement	**11 (25%)** Collection & Disbursement
6 (13,6%) Claims	**6 (13,6%)** Claims

Geographic analysis by region.

In Asia, about 60 lead investors funded the 32 more significative startups in the 2010-2019 period. Insurers present in these deals were mostly from the region.

Insurtech geographical overview (2010-2019)
Most representative insurtech startups and lead investors: Asia

Israel
- $0.5B
- 17 Startups
— Phoenix

EAU
- $0.1B
- 23 Startups
— yallacompare, aqeed, bayzat

India
- $0.7B
- 27 Startups
— policybazaar, acko, digit, Coverfox, true

China
- $2.0B
- 37 Startups
— 众安保险, 水滴, 追去哪, 百保 蜂鸟保险, e代理, 车车保险, ganp, 诂蟣找网

Japan
- $14.3M
- 5 Startups
— WealthPark, 丰顺随宝 FAIRLUGO

Hong Kong
- $0.1B
- 8 Startups
— bowtie, OneDegree

Singapore
- $0.2B
- 16 Startups
— Singlife, vouch, PolicyPal, docdoc

All other countries
- $58.4M
- 14
— sunday, DAIS

Israel, EAU, India, China, Japan, Singapore, All other countries

$3.6B; 132 startups;
60 lead investors in 32 significative startups

Lead investors in the region

Most active by times of appearence in rounds

Tencent 腾讯, SEQUOIA, Lightspeed, ADAMAS FINANCE ASIA, STC

Global Insurers

Sumitomo Corporation, Sun Life Financial, SUMITOMO LIFE, AEGON

Significative by rounds amount

Tencent 腾讯, coatue, dcm, FAIRFAX, matrix

MORADALA, vertex, BitRock CAPITAL, SEQUOIA, ASCENT CAPITAL

The most invested insurtech in Asia in 2019, Waterdrop, is backed by Tencent.

Most representative insurtech startups and lead investors: Asia

Tencent 腾讯   水滴   policy bazaar   COVERHOUND°   Circle Medical   Alibaba.com   Knotions Research

Baidu 百度   微医 MEDICAL   Rakuten   simplesurance   everLEDGER   PremFina

China

水滴 WATERDROP Inc	YunQuNa	Duobaoyu
218,5M	70M	41,9M

Hong Kong

OneDegree
30M

Singapore

Singlife
130M

India

ACKO	digit	turtlemint
65M	50M	25M

true	RenewBuy
23M	18,8M

Map markers: China, Hong Kong, India, Singapore

Comparative of investments in 2019 worldwide VS Asia

2019

$645,20M $6335M

12,84% of investment (2019)

In 2019, the funds received by the Asian insurtechs represented 12,84% while in the period 2010-2019 the investment represented 20% of the total.

Asia (2010 - 2019)

(Includes China, Hong Kong, India, Singapore, UAE, Indonesia, Israel, Malaysia, South Korea and Philipines)

🔸 $3.6B / 20%
🔴 132 startups / 15%

Conclusions.

🟦

Indian insurtechs

Indian insurtechs focused on Distribution are using technology, that empower the whole industry by reaching the large potential Indian customer base, to explore the market. These companies attracted large funds by TechGiants that vision the region as an opportunity to strengthen their presence in the market.

🟡

China & Southeast Asia

China and Southeast Asia count with different businesses compared to Indian and its main focus is in healthcare. For instance, Singlife offers critical illness insurance and wealth management, focusing on a different service and business model. Bowtie is already offering its services through the VHIS (Voluntary Heath insurance program), Hong Kong Food and Health Bureau programs to improve the healthcare in the region. Also Ant Fianacial (an Alibaba affiliate) launched in 2019 an extension of its online healthcare platform Xiang Hu Bao for people over 60, same model as Clover in the US, accounting 18% of the total population.

🔺

Africa

In case of Africa, European insurtech companies such as BIMA or Carepay found an interesting opportunity to attend unserved markets with the new micro-insurance approach. Insurers also found the opportunity to operate and expand their presence in these markets.

🔴

Emerging markets

The wave of urbanization in the emerging markets and the record speed of technology adoption seems to be to perfect storm to attract new insurance business models and investments from TechGiants, relevant insurance companies and capital firms, creating the perfect scenario for leading the new ecosystems.

Predicting Successful Startups.

Data & Machine Learning: Our work.

Data Extraction

Our secret is in the large amount of data available. Startups, funding rounds, investors,… We've selected the BFSI sector from Crunchbase with 73.000 startups and 5.000 exits.

Data Analysis

Our strategy is to understand their evolution and behavior in the different stages of growth until the startups' exits to identify the key variables of success.
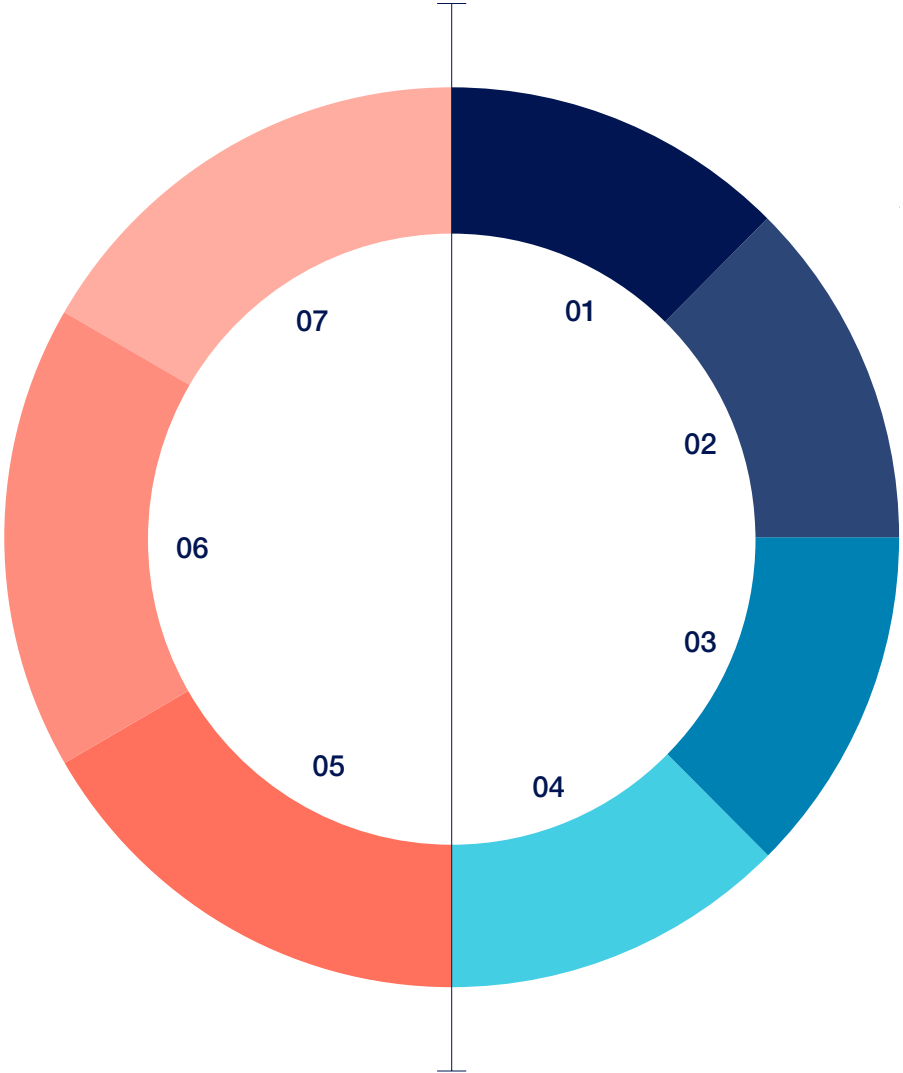
Data Modeling & Patterns

Part of our solution is to use Machine Learning algorithms. There are efficient for searching complex patterns in data, which helps us recognize companies with potential for success.

Insurtech Results

Our goal is not making a prediction about which companies are going to be successfu,l but to find out which of them meets the standards for success.

The whole study is based on the total funding amount as the key variable to identify relevant startups, technologies or business models. With this variable, we identified an important bias: a reduced number of insurtechs concentrates the majority of the funding in the whole period.

Predicting successful startups is an experiment in which the key variable to identify relevant startups, technologies or business models is not the total funding amount. We defined the "exit" of a startup as the boolean criteria of success and have used a machine learning algorithm to identify the key variables to meet this success.

Understanding the exit as the criteria of success allows us to identify relevant startups, technologies or business models regardless their total funding amount or maturity.

Extract data

Companies, Funding Rounds, Acquisitions, Investors.

Data cleaning

Remove duplicate values, detect and remove Outliers, handle empty values.

Data selection

Select the context of the study, such as regions, where there are more companies.

Feature engineering

Create new variables that provide relevant information for the models.

Modeling

Select ML algorithms for model training and optimization.

Experiment results

Analyze the results and find out what features have been important for the models.

Insurtech

Apply the models for the insurtech samples and get conclusions.

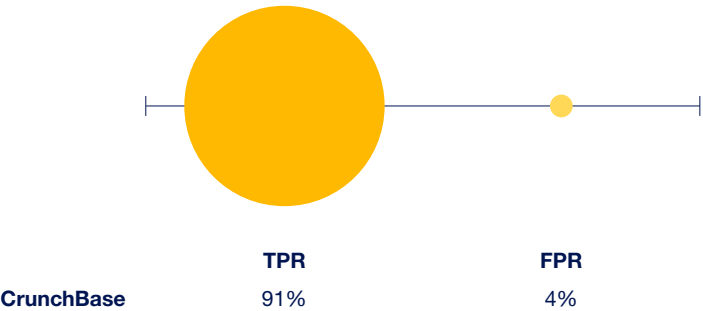# Experiments: our results.

01

What do we evaluate?

True Positive Rate (TPR)
Successful companies that have been classified as successful.

False Positive Rate (FPR)
Unsuccessful companies that have not been classified as successful.
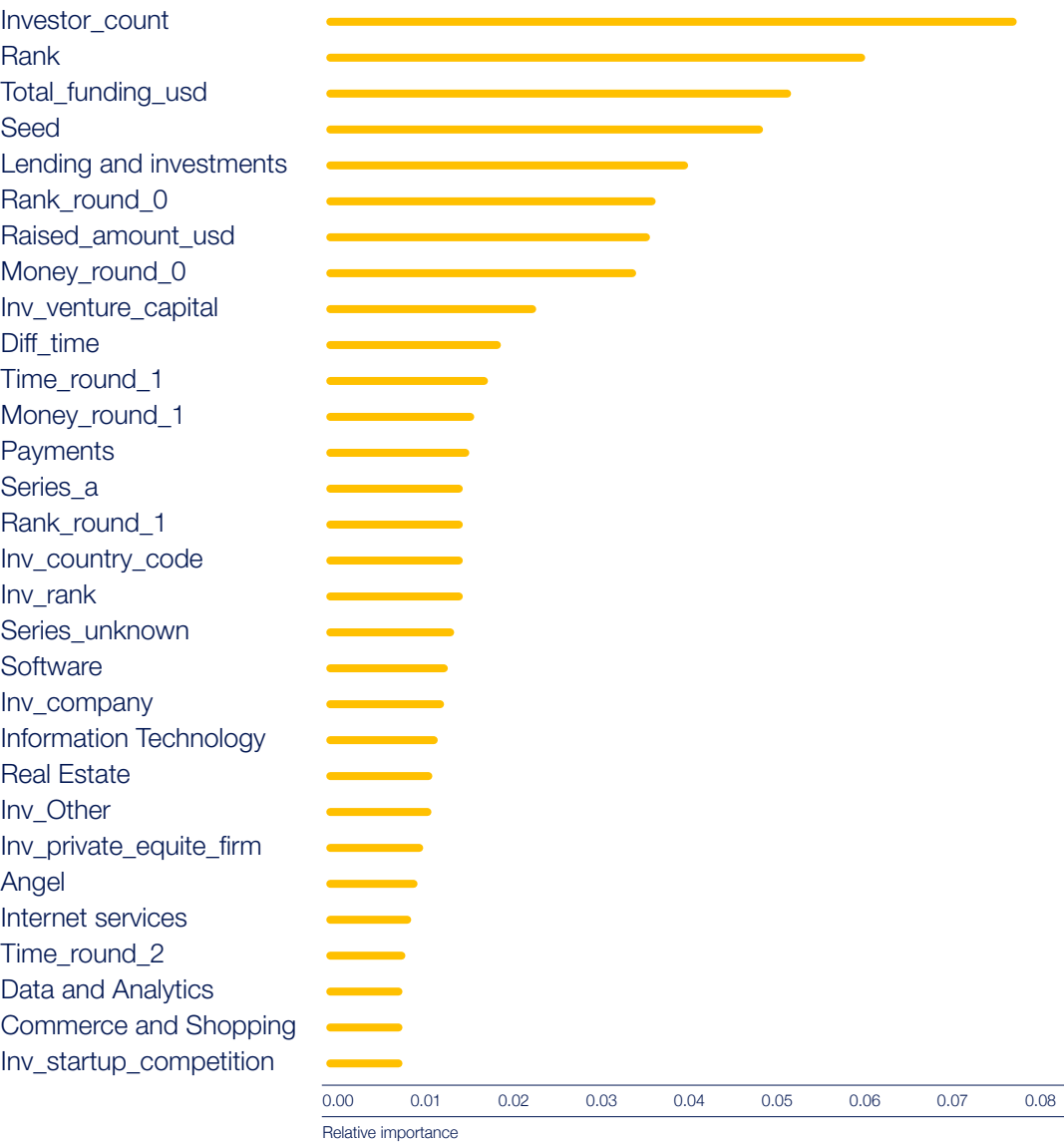
02

Results

The best results are achieved with a Random Forest:

	TPR	FPR
CrunchBase	91%	4%

The algorithm predicts the exit of the startups that finally achieve the exit, with an accuracy of the 91%
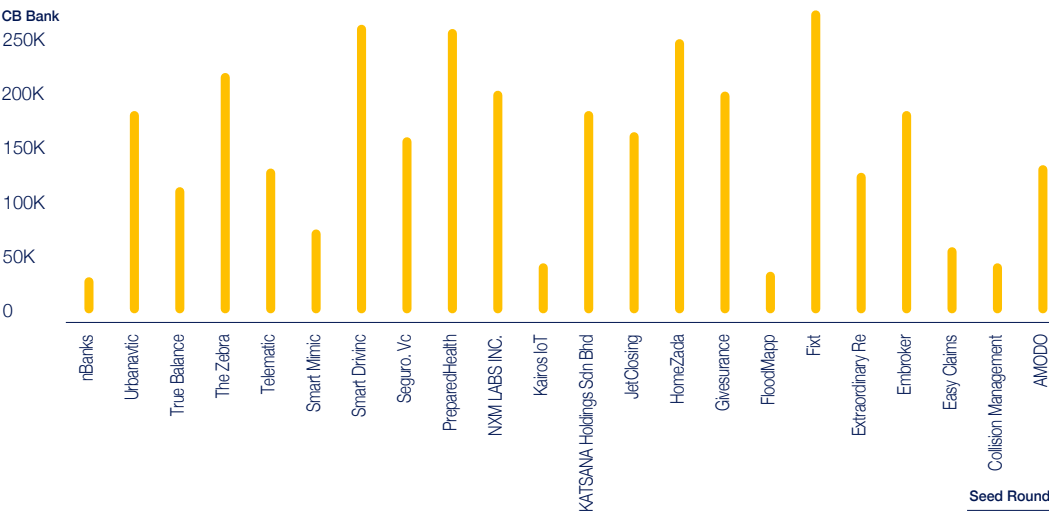
Experiments: our results.

Applying the algorithm in the sample. It identifies the key variables of those startups that achieve their exits.

Investor count, CB rank, total funding, or the seed round or the time among rounds are the top ranked variables.

Investor_count
Rank
Total_funding_usd
Seed
Lending and investments
Rank_round_0
Raised_amount_usd
Money_round_0
Inv_venture_capital
Diff_time
Time_round_1
Money_round_1
Payments
Series_a
Rank_round_1
Inv_country_code
Inv_rank
Series_unknown
Software
Inv_company
Information Technology
Real Estate
Inv_Other
Inv_private_equite_firm
Angel
Internet services
Time_round_2
Data and Analytics
Commerce and Shopping
Inv_startup_competition

0.00   0.01   0.02   0.03   0.04   0.05   0.06   0.07   0.08

Relative importance

Experiments: our results.

Applying the algorithm in our insurtech sample. It labelled as unsuccessful the following companies in their early stages. But models are able to recognize patterns of success in these unsuccessful companies (because of their early stages).

Unsuccessful companies predicted as successful (Seed Round)

Unsuccessful companies predicted as successful (Series A)