Insurtechs, keys for understanding how they are challenging and complementing the insurance sector.
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.

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.
Insurtech Global Outlook 2020 at a glance.

- $6.3B: Insurtech has been attracting significant amounts of investment since 2018, showing the industry’s ability to capture investors’ interest. In 2019, this funding reached $6.3B, resulting in a 2017-2019 CAGR of 58%.

- 56%: In 2019, the investment of insurers in startups related to Insurance, Financial Services and Healthcare was 56%, while in the 2010-2019 period it was 31%.

- -15%: Less deals in 2019 compared to 2018, going from 316 to 268, respectively. There is more investment concentration and fewer deals.

- 55%: Of the investment made in startups in the period 2015-2019, according to the area of the value chain on which they focus, was directed to Marketing and Distribution.

- 67%: The top 6% (in terms of total amount of funding) of startups in the sample concentrates 67% of the total funding globally, considering the period from 2010 to 2019.

- $3.6B: Insurtechs from Asia raised a total amount of $3.6B between 2010 and 2019, which represents 20% of all the investment made in this period.

- 4: Ecosystems. 618 startups in our sample belong to these four ecosystems: Healthy Living, Home Safe Home, Smart Mobility and Business Shield. The other 279 startups belong to the Distribution or Technology enablers.

- 90%: In 2019, the 90% of total insurtech investments of the year went to startups based on Cloud, Mobile and Applications, AI and Data.
01 Global Insurtech Trends.
Insurtech investment evolution.

Insurtech has been attracting significant amounts of investment since 2018, showing the industry’s ability to capture investors’ interest. In 2019, this funding reached $6.3B resulting in a 2017-2019 CAGR of 58%.

Key figures under 2020 everis scope (*):
- 894 startups
- 1,450 deals
- Total funds $18.2B

Funds by Series Evolution.

Late stage funding has been exponentially increasing. Evidences show more mature companies attracting large investments to scale and gain market share.

In 2019, Root Insurance raised $350M in Series E, led by DST Global and Coatue Management. The company’s total funding up to date is $527.5M.

Late in 2019, Clover Health raised $500M. Existing investor Greenoaks Capital led the Series E. The company is backed by Alphabet’s venture arm GV, Sequoia Capital, Floodgate, Bracket Capital, First Round Capital, among others. The company’s total funding is $925M.

Bright Health raised $635M in 2019 in an oversubscribed series D funding round led by NEA which included investments from the existing investors. The company’s up to date total funding is $1.075B. The startup has expanded its health plan products including Medicare Advantage to several new markets for 2020.

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Insurtech investments detailed composition unding by stage in USD million (2010=2019)*

2013-2017:
- Top 3 deals 28.8% of total funds
- Av. deal size $9.2M

2017-2019:
- Top 3 deals 16.6% of total funds
- Av. deal size 2017-2019: $14.3M

*Total Funds Information up to 4Q 2019 based on disclosed deals; Not considered Huatai Insurance Group deal in 2019 by $2.1B.
Outliers.
The top 6% (in terms of total amount of funding) of startups in the sample concentrates 67% of the total funding globally, considering the period from 2010 to 2019. These startups are mainly located in the USA, and the majority operates in the Cross line of business.

Regional breakdown.
Early Stage rounds (Pre Seed, Seed and Series A) have on average lower levels in mature large economies. For instance, USA and China are relevant influencers of their respective regions.

Percentage of funds to early stage ventures
Overview of investment 2010-2019.

From 2010 to 2019, insurtechs have received several different types of rounds. The Non Outliers received mostly Series A and Seed. Outliers are well distributed in Series A, B and C.

Outliers and Non Outliers detailed fund series

<table>
<thead>
<tr>
<th>Line of Business</th>
<th>Outliers</th>
<th>Non Outliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Round</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Debt Financing</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Pre-Seed</td>
<td>2</td>
<td>112</td>
</tr>
<tr>
<td>Private Equity</td>
<td>7</td>
<td>13%</td>
</tr>
<tr>
<td>Seed</td>
<td>1</td>
<td>12%</td>
</tr>
<tr>
<td>Series A</td>
<td>23</td>
<td>51%</td>
</tr>
<tr>
<td>Series B</td>
<td>25</td>
<td>31%</td>
</tr>
<tr>
<td>Series C</td>
<td>15</td>
<td>25%</td>
</tr>
<tr>
<td>Series D</td>
<td>3</td>
<td>0%</td>
</tr>
<tr>
<td>Series E</td>
<td>3</td>
<td>1%</td>
</tr>
<tr>
<td>Venture Unknown</td>
<td>11</td>
<td>17%</td>
</tr>
</tbody>
</table>

$12.5B  $5.9B

Insurtech investment by line of business.

Auto and Home have a clear trend of increase the proportion direct to Insurtechs, signalling a possible investor preference in this line of business or new investors entering.
Insurtech investment by line of business.

Outliers have a high volatility in number of deals period by period, especially Commercial line of business. Home tends to increase in the percentage of total amount of funding, while Health is stable. Health and Auto are more consistent on both variables.

Overview of investment 2019.

In 2019, most investments for Non Outliers focus on the Cross line of business. Large fundings raised by companies such as Clover Health and Bright Health explain why the total amount received by Outliers was so considerably high this year.

Insurtech investment in 2019 by line of business*

Outliers

Auto

Commercial

Cross

Health

Home

Life

Avg. deal size $117M

Non Outliers

Auto

Commercial

Cross

Health

Home

Life

Reinsurance

Travel

Avg. deal size $7M

Outliers, representing 14% of the total number of companies, received approximately 70% of the funds in 2019.

Total funds $6.3B

Total deals 266
Funds flowing to new startups in 2019.

In 2019, most of the funds were direct to American companies that offer Medicare plans. New startups received 28% of funds, in which 80% operate in the Commercial line of business.

### 2019 Top 2 deals in new startups

**Clover**
- **Foundation date**: 2013
- **Last funding date**: 2019
- **Lead Investor**: Greencastle Capital
- **Client**: B2B; B2C

**Bright Health**
- **Foundation date**: 2015
- **Last funding date**: 2019
- **Lead Investor**: New Enterprise Associates
- **Client**: B2B; B2C

### 2019 Top 2 deals in Outliers

**AI-powered Cyber Insurance**
- **Foundation date**: 2019
- **Last funding date**: 2019
- **Lead Investor**: ManchesterStory Group
- **Client**: B2B

**Just**
- **Foundation date**: 2019
- **Last funding date**: 2019
- **Lead Investor**: Robert Smithson
- **Client**: B2B

**Clover**
- **Foundation date**: 2013
- **Last funding date**: 2019
- **Lead Investor**: Greencastle Capital
- **Client**: B2B, B2C.

**Bright Health**
- **Foundation date**: 2015
- **Last funding date**: 2019
- **Lead Investor**: New Enterprise Associates
- **Client**: B2B; B2C

Funds Raised in 2019

28%

72%
New startups in 2019.

The 45% of startups with foundation date 2019 are from the USA, while the other 55% are from Europe, Africa and South America. The 63% are business models based on Platforms and Marketplaces.

Detail of new startups with date of foundation 2019 (*)

<table>
<thead>
<tr>
<th>Business models</th>
<th>Platforms / Marketplace</th>
<th>On-demand</th>
<th>Phygital &amp; smart things</th>
<th>Everything as a Service</th>
<th>Platforms / Marketplace</th>
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<td>7</td>
<td>1</td>
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<td>7</td>
<td>1</td>
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<td>7</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
</tr>
</tbody>
</table>

### It provides online weather insurance for businesses.

- **Platform Ecosystem / Marketplace**: everything as a Service
- **Client**:
  - B2B: $0.1M / Seed
  - Lead investor: Manchester Story Group (USA)

### It is a cyber risk and insurance observability platform.

- **Platform Ecosystem / Marketplace**: everything as a Service
- **Client**:
  - B2B: $3.3M / Seed
  - Lead investor: IFB Innovationsstarter (Germany)

### Affordable and inclusive healthcare for everyone.

- **Platform Ecosystem / Marketplace**: everything as a Service
- **Client**:
  - B2B; B2C; $0.05M / Seed
  - Lead investor: EIT Digital Accelerator

### Automatic pay-per-day travel insurance app.

- **On-demand**
- **Client**:
  - B2B; Pre-seed; $ N/A
  - Lead investor: UNIQ Ventures (Andorra)

### Automated cyber resilience solution.

- **Anomics**
- **Client**:
  - B2B; Pre-seed; $ N/A
  - Lead investor: Meltwater Entrepreneurial School of Technology (Ghana)

### Mobile app offering financial planning, investment management and financial education.

- **Platform Ecosystem / Marketplace**
- **Client**:
  - B2B; Pre-seed; $ N/A
  - Lead investor: UNIQ Ventures (Andorra)

### A cyber risk and insurance observability platform for mid-to-large enterprises that aligns insurable threats to risk exposures.

- **Platform Ecosystem / Marketplace**
- **Client**:
  - B2B
  - Lead investor: Manchester Story Group (USA)
Overview of investment 2019.

In 2019, Outliers attracted more types of funding rounds, including debt financing and corporate rounds, while Non Outliers received funding mostly from early stage rounds.

Outliers and Non Outliers detailed funding series

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<td>Debt Financing</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Private Equity</td>
<td>1</td>
<td>3%</td>
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<td>2</td>
<td>21%</td>
</tr>
<tr>
<td>Series G</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Venture</td>
<td>4</td>
<td>6%</td>
</tr>
<tr>
<td>Venture Series Unknown</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Percentage on total funds per round type
- Number of companies related to the round type

Non Outliers have lower correlation between the percentage of total funds per round type and number of companies in determined round, signaling more uneven amount of funds per company.

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**Investors analysis.**

In 2019, investors from different geographical regions participated in funding top startups compared to the 2010-2018 period, most of them were mainly from the USA.

**Investors analysis (2010-2019)**

**2010-2018 Investors in top funded startups**

<table>
<thead>
<tr>
<th>Startups</th>
<th>Investors</th>
<th>Series D</th>
<th>Series E</th>
<th>Series C</th>
</tr>
</thead>
<tbody>
<tr>
<td>SoftBank</td>
<td></td>
<td>$502.5M</td>
<td>$38.6M</td>
<td></td>
</tr>
<tr>
<td>Lemonade</td>
<td></td>
<td>$936.9M</td>
<td></td>
<td>$180.0M</td>
</tr>
<tr>
<td>Fidelity</td>
<td></td>
<td>$936.9M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oscar</td>
<td></td>
<td>$1.267M</td>
<td></td>
<td>$10.4M</td>
</tr>
<tr>
<td>Alphabet</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clover</td>
<td></td>
<td></td>
<td></td>
<td>$500.0M</td>
</tr>
<tr>
<td>The Arrow Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zhong</td>
<td></td>
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<tr>
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<td></td>
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<tr>
<td>Waterdrop</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Root Insurance Co</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Munich RE</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Tencent</td>
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<th>Series E</th>
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</tr>
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<tbody>
<tr>
<td>NEA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bright</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clover</td>
<td></td>
<td></td>
<td></td>
<td>$500.0M</td>
</tr>
<tr>
<td>Covalve</td>
<td></td>
<td></td>
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<td>Tencent</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In 2019 and 2018, deals related to Cambridge Mobile by $500.0M (2018) and Oscar by $165.0M (2018) have been reclassified from Venture series unknown to Late series. In 2019, Huatai Insurance Group by $2,090M (2019) is not included in the analysis. In 2013, deals related to Hamilton Insurance Group by $526.56M and to Global Risk Partners by $98.5M are not included since they are not purely Insurtech deals.

*Total Funds information up to Q42019 based on disclosed deals; Not considered Huatai Insurance Group deal in 2019 by $2.1B.
Details of investment by Series 2019.

In 2019, top 3 startups capturing Seed funding were from China, the USA and Israel, operating in Health, Home and Commercial lines of business respectively.

Insurtech investments by funding series 2019 * (1/7)

Representative deals for Seed

<table>
<thead>
<tr>
<th>Series</th>
<th>Total funds raised</th>
<th>Foundation Date</th>
<th>Led by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed</td>
<td>$0.2B; 3% of 2019 total funds (6.3B)</td>
<td>2018</td>
<td>Nuanwa Thecnology</td>
</tr>
</tbody>
</table>

Seed: $0.2B; 3% of 2019 total funds (6.3B)>

It is a health insurance technology platform. The company is positioned in the field of health insurance technology, mainly serving insurance companies and Internet platforms, providing products customization services, risk control, claims services, and system services among others.

Foundation Date 2018

Total funds raised $13.9M; Series Angel

Led by Sequoia Capital (China)

Details of investment by Series 2019.

Top deals of 2019 in Series A involved companies founded between 2015 and 2017, playing in the Health and Cross lines of business in Europe, Hong Kong and the USA.

Insurtech investments by funding series 2019 * (2/7)

Representative deals for Series A

<table>
<thead>
<tr>
<th>Series</th>
<th>Total funds raised</th>
<th>Foundation Date</th>
<th>Led by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series A</td>
<td>$0.5M; 8% of 2019 total funds</td>
<td>2015</td>
<td>@carepay</td>
</tr>
</tbody>
</table>

It is a mobile health data & payment distribution platform, that is linked into several digital payment networks across various countries, permanently connects patients, premium payers, insurers and healthcare providers in a standardized way and can be introduced anywhere in the world.

Foundation Date 2015

Total funds raised $44.8M; Series A

Led by ELMA Philanthropies (USA)

Part of Lockon, it is the largest independent and unbiased insurance broker.

Foundation Date 2015

Total funds raised $21M; Series Angel

Led by Guggenheim Partners (USA)

In 2019, Series B attracted the biggest amount of funds where the top 3 deals involved Wefox Group from Europe and Vouch Insurance and States Title from the USA.

Insurtech investments by funding series 2019 *(3/7)
Representative deals for Series B

<table>
<thead>
<tr>
<th>Series</th>
<th>Foundation Date</th>
<th>Total funds raised</th>
<th>Led by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Series A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Series B</td>
<td>2016</td>
<td>$1.1B</td>
<td></td>
</tr>
<tr>
<td>Series C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Series D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Series E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venture series</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Series B: $1.1B; 18% of 2019 total funds

**wefox**

❤️ 🇩🇪 It is an organization that connects insurance providers, distributors, and customers via technology.

Foundation Date 2016
Total funds raised $33M; Series B
Led by Mubadala Ventures (United Arab Emirates) and OMERS Ventures (USA)

**Vouch Insurance**

❤️ 🇺🇸 An insurance company designed for startups.

Foundation Date 2016
Total funds raised $100M; Series B
Led by Combinator Continuity Fund (USA)

**States Title**

❤️ 🇺🇸 Insurtech platform that uses machine intelligence to remove friction from residential real estate transactions.

Foundation Date 2016
Total funds raised $83.4M; Series B
Led by Lennar Corporation (USA)


In 2019, top funded startups in Series C operated in the Commercial line of business. In this ranking, there are 2 companies from China.

Insurtech investments by funding series 2019 *(4/7)
Representative deals for Series C

<table>
<thead>
<tr>
<th>Series</th>
<th>Foundation Date</th>
<th>Total funds raised</th>
<th>Led by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed</td>
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<td></td>
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</tr>
<tr>
<td>Series A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Series B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Series C</td>
<td>2016</td>
<td>$0.8B</td>
<td></td>
</tr>
<tr>
<td>Series D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Series E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venture series</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Series C: $0.8B; 13% of 2019 total funds

**Next Insurance**

Next Insurance is an online insurance company for entrepreneurs small businesses.

Foundation Date 2016
Total funds raised $25M; Series C
Led by Munich Re Ventures (Germany)

**Waterdrop**

An insurance platform that plans to solve the problem of high medical fees faced by most patients, especially those with a critical illness.

Foundation Date 2016
Total funds raised $144.5M; Series C
Main investors Boyu Capital, China Capital Investment Group, Gaorong Capital, Tencent Holdings (China)

**YunQuNa**

It is an online portal that offers logistics trading and services on a global scale.

Foundation Date 2015
Total funds raised $70M; Series C
Led by Coatue Management, Sequoia Capital China (China)

Nearly 77% of 2019 Series D total funding was concentrated in the top 3 most funded companies of this Series.

Insurtech investments by funding series 2019 *(5/7)

Representative deals for Series D

<table>
<thead>
<tr>
<th>Series</th>
<th>Total funds raised</th>
<th>Led by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Series A</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Series B</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Series C</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Series D</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Series E</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Late</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Venture</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td>7%</td>
<td></td>
</tr>
</tbody>
</table>

Series D: $1.3B; 21% of 2019 total funds

*Total Funds information up to Q42019 based on disclosed deals

[Table of investments]


Almost 95% of 2019 total funding in Series E was concentrated in Clover and Root Insurance. These American startups operate in Health and Auto verticals and have an interesting market traction.

Insurtech investments by funding series 2019 *(6/7)

Representative deals for Series E

<table>
<thead>
<tr>
<th>Series</th>
<th>Total funds raised</th>
<th>Led by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Series A</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Series B</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Series C</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Series D</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Series E</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Late</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Venture</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td>7%</td>
<td></td>
</tr>
</tbody>
</table>

Series E: $0.9B; 14% of 2019 total funds

Clover

It is a Medicare Advantage plan giving members more coverage for less cost, including dental, vision, hearing & more.

Foundation Date 2013
Total funds raised $500M; Series E
Led by Greenoaks Capital (USA)

Root Insurance Co

It is an insurance carrier that uses an app to rate drivers based on how they drive.

Foundation Date 2015
Total funds raised $350M; Series E
Led by Coatue Management, DST Global (USA)

Snapsheet

Snapsheet is an auto insurance marketplace for both motorists/drivers and auto insurance carriers.

Foundation Date 2015
Total funds raised $90M; Series E
Led by Tola Capital (USA)

In 2019, the main deals made in “Late Series” were the acquisitions of the Israeli company Phoenix by Centerbridge Partner (USA) and Gallatin Point Capital (UK); and the deal led by the Chinese Tencent Holdings with the Indian company Policy Bazaar.

Insurtech investments by funding series 2019 *(7/7)

Representative deals for Late Series

<table>
<thead>
<tr>
<th>Series</th>
<th>2010-2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Series A</td>
<td>29%</td>
<td>28%</td>
</tr>
<tr>
<td>Series B</td>
<td>25%</td>
<td>18%</td>
</tr>
<tr>
<td>Series C</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td>Series D</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Series E</td>
<td>5%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Late: $0.7B; 11% of 2019 total funds (6.3B) >

One of Israel's leading Insurance companies.

**Phoenix**

- **Foundation Date**: 1949
- **Total funds raised**: $446M; IPO
- **Acquisition of 32.5% by Centerbridge Partners and Gallatin Point Capital (USA & UK)**

It designs an online life insurance and general insurance comparison portal that analyzes financial products.

**Policy Bazaar**

- **Foundation Date**: 2008
- **Total funds raised**: $150.0M; Series G
- **Led by Tencent Holdings (China)**

It develops industry-specific software that helps insurance carriers to deploy and manage their products and services.

**Bancid Creek Technologies**

- **Foundation Date**: 2000
- **Total funds raised**: $230.0M; Private equity round
- **Led by Dragoneer Investment Group, Insight Partners, Neuberger Berman Group, Temasek Holdings (USA)**

Insurtech investment by Line of Business 2010-2018 compared to 2019.

Startups in the Health, Commercial and Home lines of business have increased their participation as percentage of the total funds invested in 2019 compared to the 2010-2018 period.

Insurtech investments by line of business 2010-2018 compared to 2019

<table>
<thead>
<tr>
<th>Line of Business</th>
<th>2010-2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Health</td>
<td>23%</td>
<td>23%</td>
</tr>
<tr>
<td>Auto</td>
<td>18%</td>
<td>20%</td>
</tr>
<tr>
<td>Commercial</td>
<td>13%</td>
<td>15%</td>
</tr>
<tr>
<td>Home</td>
<td>11%</td>
<td>13%</td>
</tr>
<tr>
<td>Life</td>
<td>3%</td>
<td>12%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Late: $11.8B; $6.4B
Details of insurtech investment by line of business 2019.

In 2019, investments in startups belonging to Health line of business grew due to the Bright Health deal at the end of the year. The main business model in this line of business was the one related to Platforms & Marketplaces offering insurance products.

In 2019, investments in startups belonging to Health line of business grew due to the Bright Health deal at the end of the year. The main business model in this line of business was the one related to Platforms & Marketplaces offering insurance products.

*Total Funds information up to Q42019 based on disclosed deals

**Cross 2019 Total funds: $1.7B; 28% of total (6.3B)**

- **policybazaar**: Total funds raised $315.0M
  
  **Main Technology**: Cloud, Mobile & Applications
  
  **Business Model**: Platform Ecosystem / Marketplace
  
  **Led by**: Tencent Holdings (China)

- **wefox**: Total funds raised $235.0M
  
  **Main Technology**: Artificial Intelligence
  
  **Business Model**: Platform Ecosystem / Marketplace
  
  **Led by**: Mubadala Ventures (United Arab Emirates) and QNI Ventures (USA)

- **unqork**: Total funds raised $110M
  
  **Main Technology**: Cloud, Mobile & Applications
  
  **Business Model**: Platform Ecosystem / Marketplace
  
  **Led by**: CapitalG (USA) and Goldman Sachs Principal Strategic Investments (USA)

**Health 2019 Total funds: $1.8B; 29% of total funds**

- **bright**
  
  **Main Technology**: Cloud, Mobile & Applications
  
  **Business Model**: Platform Ecosystem / Marketplace
  
  **Led by**: NEA (USA)

- **Clover**: Total funds raised $650.0M
  
  **Main Technology**: Cloud, Mobile & Applications
  
  **Business Model**: Platform Ecosystem / Marketplace
  
  **Led by**: Greenoaks Capital (USA)

- **Waterdrop**: Total funds raised $218M
  
  **Main Technology**: Cloud, Mobile & Applications
  
  **Business Model**: Platform Ecosystem / Marketplace
  
  **Led by**: Boyo Capital and Tencent Holdings (China)
Details of insurtech investment by line of business 2019.

In 2019, investments in startups operating in the Commercial line of business grew with respect to the total funds raised. This niche of the Insurance market could be rapidly scalable and, therefore, attract great interest from investors.

### Representative startups

#### Auto 2019 Total funds: $0.9B; 15% of total funds

<table>
<thead>
<tr>
<th>Company</th>
<th>Total funds raised</th>
<th>Main Technology</th>
<th>Business Model</th>
<th>Led by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root Insurance Co</td>
<td>$981.0M</td>
<td>Internet of Things</td>
<td>On-demand</td>
<td>Coatue Management (USA) and DST Global (HK)</td>
</tr>
<tr>
<td>Octane Lending</td>
<td>$145.0M</td>
<td>Cloud, Mobile &amp; Applications</td>
<td>Platform Ecosystem / Marketplace</td>
<td>Valar Ventures (USA)</td>
</tr>
<tr>
<td>FRIDAY</td>
<td>$127.0M</td>
<td>Cloud, Mobile &amp; Applications</td>
<td>Platform Ecosystem/Marketplace</td>
<td>Media-for-equity deal, Seven Ventures and the media investor German Media Pool, Baloise Group (Germany and Switzerland)</td>
</tr>
</tbody>
</table>

#### Commercial 2019 Total funds: $0.8B; 13% of total funds

<table>
<thead>
<tr>
<th>Company</th>
<th>Total funds raised</th>
<th>Main Technology</th>
<th>Business Model</th>
<th>Led by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next Insurance</td>
<td>$650.0M</td>
<td>Cloud, Mobile &amp; Applications</td>
<td>Platform Ecosystem / Marketplace</td>
<td>Munich Re Ventures (Germany)</td>
</tr>
<tr>
<td>YunGuNa</td>
<td>$70.0M</td>
<td>Cloud, Mobile &amp; Applications</td>
<td>Platform Ecosystem / Marketplace</td>
<td>SevenVentures and the media investor German Media Pool; Baloise Group (Germany and Switzerland); Valar Ventures (USA)</td>
</tr>
<tr>
<td>Shift</td>
<td>$60.0M</td>
<td>Artificial Intelligence</td>
<td>Platform Ecosystem / Marketplace</td>
<td>Bessemer Venture Partners (India)</td>
</tr>
</tbody>
</table>
Details of insurtech investment by line of business 2019.

In 2019, the Home line of business grew. One of the most relevant deals of the year in this vertical, was the funding raised by Lemonade in a round led by SoftBank, looking to expand the startup operations beyond the American market.

**Representative startups**

<table>
<thead>
<tr>
<th>Line of Business</th>
<th>Total Funds Raised</th>
<th>Business Model</th>
<th>Main Technology</th>
<th>Led by</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home</td>
<td>$0.7B</td>
<td>Platform Ecosystem</td>
<td>Artificial Intelligence</td>
<td>SoftBank Group (Japan)</td>
</tr>
<tr>
<td>Health</td>
<td></td>
<td></td>
<td>Artificial Intelligence</td>
<td></td>
</tr>
<tr>
<td>Auto</td>
<td></td>
<td></td>
<td>Artificial Intelligence</td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td></td>
<td>Cloud, Mobile &amp; Applications</td>
<td>Lennar Corporation (USA)</td>
</tr>
<tr>
<td>Life</td>
<td></td>
<td></td>
<td>Cloud, Mobile &amp; Applications</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td>Cloud, Mobile &amp; Applications</td>
<td></td>
</tr>
</tbody>
</table>

*Total Funds information up to Q4 2019 based on disclosed deals*

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**Commercial 2019 Total funds: $0.8B; 13% of total (6.3B)**

**States Title**

- **Total funds raised**: $2.6B
- **Main Technology**: Cloud, Mobile & Applications
- **Business Model**: Platform Ecosystem / Marketplace
- **Led by**: Lennar Corporation (USA)

**SingMe**

- **Total funds raised**: $103.0M
- **Main Technology**: Cloud, Mobile & Applications
- **Business Model**: Platform Ecosystem / Marketplace
- **Led by**: Sumitomo Life Insurance Company (Japan); Aberdeen Standard Investments (UK) and ION Pacific (Israel)

**Hippo**

- **Total funds raised**: $100.0M
- **Main Technology**: On-Demand
- **Business Model**: Platform Ecosystem / Marketplace
- **Led by**: Bond (USA)
Insurtech investment by technology in 2010-2018 compared to 2019.

In 2019, the startups based on the use of technologies such as Artificial Intelligence and Cloud, Mobile & Applications had a modest growth regarding to the investment received, while the ones that used Big Data & Backend obtained a slightly lower investment compared to the 2010-2018 period.

<table>
<thead>
<tr>
<th>Technology</th>
<th>2010-2018</th>
<th>2019</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloud, Mobile &amp; Applications</td>
<td>72%</td>
<td>74%</td>
<td>2%</td>
</tr>
<tr>
<td>Artificial Intelligence</td>
<td>12%</td>
<td>16%</td>
<td>4%</td>
</tr>
<tr>
<td>Internet of Things</td>
<td>6%</td>
<td>6%</td>
<td>0%</td>
</tr>
<tr>
<td>Big Data &amp; Backend</td>
<td>10%</td>
<td>3%</td>
<td>-7%</td>
</tr>
<tr>
<td>Blockchain</td>
<td>0%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

$11.8B $6.4B

Investments by technology 2019.

In 2019, 90% of Insurtech’s total investments went to new companies based on Cloud, Mobile & Applications and Artificial Intelligence, operating in the Health, Home, Life and Cross lines of business.

### Insurtech investments by technology in 2010-2018 compared to 2019

- **Cloud, Mobile & Applications**: 2010-2018 $11.8B / 72% 2019 $6.4B / 74%
- **Artificial Intelligence**: 2010-2018 $2.3B / 12% 2019 $1.02B / 16%
- **Internet of Things**: 2010-2018 $1.4B / 6% 2019 $1.4B / 6%
- **Big Data & Backend**: 2010-2018 $2.3B / 6% 2019 $1.2B / 3%
- **Blockchain**: 2010-2018 $0.2B / 1% 2019 $0.1B / 1%

*Total Funds information up to Q42019 based on disclosed deals

In 2018 and 2019, deals related to Cambridge Mobile by $300.0M (2018), and Oscar by $165.0M (2018) have been reclassified from Venture series unknown to Late series. In 2013, deals related to Hamilton Insurance Group by $526.56M and to Global Risk Partners by $88.5M are not included since are not purely Insurtech deals.

- **Cloud, Mobile and Applications: 2019 Total funds $4.7B / 74%**
  - Total funds raised: $500.0M
  - Business Model: Platform Ecosystem / Marketplace
  - Led by NEA (USA)

- **Artificial Intelligence: 2019 Total funds $1.02B / 16%**
  - Total funds raised: $300.0M
  - Business Model: Anonics
  - Led by SoftBank Group (Japan)

- **Platform Ecosystem / Marketplace**
  - Main partner: Acquisition of the 32.5% by Centbridge Partners and Gallatin Point Capital

- **Blockchain**
  - Total funds raised: $235.0M
  - Business Model: Platform Ecosystem / Marketplace
  - Led by Bond (USA)

- **Softbank Ventures**
  - Total funds raised: $100.0M
  - Business Model: On-Demand
  - Led by SoftBank Group (Japan)

- **Wefox**
  - Total funds raised: $100.0M
  - Business Model: Platform Ecosystem / Marketplace
  - Led by Mubadala Ventures (United Arab Emirates) and OMERS Ventures (USA)
**Investments by technology 2019.**

In 2019, top funded companies, using Internet of Things as the main technology, operated in the Auto line of business. At the same time, most funded startups based on Big Data & Backend technology played in Cross and Commercial insurance verticals.

### Insurtech investments by technology in 2010-2018 compared to 2019

<table>
<thead>
<tr>
<th>Technology</th>
<th>2010-2018 Funds</th>
<th>2019 Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloud, Mobile &amp; Applications</td>
<td>$501.0M</td>
<td>$1.60M</td>
</tr>
<tr>
<td>Artificial Intelligence</td>
<td>$70M</td>
<td>$15.0M</td>
</tr>
<tr>
<td>Internet of Things</td>
<td>$33.5 M</td>
<td>$33.5 M</td>
</tr>
<tr>
<td>Big Data &amp; Backend</td>
<td>$45.0M</td>
<td>$1.60M</td>
</tr>
<tr>
<td>Blockchain</td>
<td>$33.5 M</td>
<td>$33.5 M</td>
</tr>
</tbody>
</table>

### Internet of Things: 2019 Total funds $0.39B / 6%

- **Root Insurance Co.**
  - Total funds raised: $501.0M
  - Business Model: On-demand
  - Led by: Coatue Management (USA) and DST Global (HK)
- **Cuiva**
  - Total funds raised: $15.0M
  - Business Model: Physical and smart things
  - Led by: Breyga, Chris Adelsohn, Digital Horizon, Dominic Burlo, Faisal Galaria, LocalGlobe, RTP Global, Seedcamp, Techstars Ventures, Tekton Ventures

### Big Data & Backend: 2019 Total funds $0.21B / 3%

- **Cuvva**
  - Total funds raised: $70M
  - Business Model: Platform Ecosystem / Marketplace
  - Main partner: Coatue Management (USA) and Sequoia Capital China (China)
- **Kover.ai**
  - Total funds raised: $1.60M
  - Business Model: Tokenomics
  - Led by: Techstars (USA)
- **B3i**
  - Total funds raised: $118.0M
  - Business Model: Tokenomics
  - Led by: Techstars (USA)
- **Cuvva**
  - Total funds raised: $13.5 M
  - Business Model: Tokenomics
  - Led by: Tola Capital (USA)
Geographic analysis Overview.

In terms of Insurtech investments, the USA and China led the ranking. However, Europe ranked second, just behind the USA, when comes to number of startups.

Insurtech geographical overview (2010-2019)
Global Insurtech landscape

- $18.2B
- 894 startups

North America

- $11.4B / 62%
- 425 startups / 48%

Includes USA, Canada, Puerto Rico, Bermuda, Guatemala and Mexico

Other regions

- $0.3B / 2%
- 68 startups / 8%

Includes Africa, Oceania and South America

Europe

- $2.9B / 16%
- 269 startups / 30%

Asia

- $3.6B / 20%
- 132 startups / 15%

Includes China, Hong Kong, India, Singapore, UAE, Indonesia, Israel, Japan, Malaysia, South Korea and Philippines

Geographic analysis by region.

In Europe, about 85 lead investors funded the 40 more significative startups in 2010-2019 period. These investors were basically from Europe, the USA and Hong Kong. Institutional funds and insurers were also present as lead investors in highest funding rounds in Europe.

Insurtech geographical overview (2010-2019)
Most representative Insurtech startups and lead investors: North America

Canada

- $0.03B
- 26 Startups
- Massachusetts

- $0.06B
- 6 Startups

- $0.08B
- 19 Startups

All Other Cities

- $0.03B
- 8 Startups

New York

- $3.8B
- 74 Startups

California

- $2.7B
- 130 Startups

Mexico and Guatemala

- $0.03B
- 8 Startups

108 lead investors in 40 significative startups

Significative by rounds amount

Global Insurers

Includes China, Hong Kong, India, Singapore, UAE, Indonesia, Israel, Japan, Malaysia, South Korea and Philippines

Includes China, Hong Kong, India, Singapore, UAE, Indonesia, Israel, Japan, Malaysia, South Korea and Philippines

Includes China, Hong Kong, India, Singapore, UAE, Indonesia, Israel, Japan, Malaysia, South Korea and Philippines

Includes China, Hong Kong, India, Singapore, UAE, Indonesia, Israel, Japan, Malaysia, South Korea and Philippines

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Geographic analysis by region.

In Europe, about 85 lead investors funded the 40 more significative startups in 2010-2019 period. These investors were basically from Europe, the USA and Hong Kong. Institutional funds and insurers were also present as lead investors in highest funding rounds in Europe.

Insurtech geographical overview (2010-2019)
Most representative Insurtech startups and lead investors: North America

Switzerland
- $0.1B
- 8 Startups

UK
- $0.9B
- 37 Startups

France
- $0.3B
- 16 Startups

Spain
- $0.1B
- 14 Startups

All other countries
- $0.4B
- 71 Startups

85 lead investors in 40 significative startups

Lead investors in the region
Most active by times of appearance in rounds

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

Israel
- $0.5B
- 17 Startups

Japan
- $14.3M
- 5 Startups

China
- $2.0B
- 37 Startups

India
- $0.7B
- 27 Startups

All other countries
- $5.6M
- 14

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

Global Insurers

Most active by times of appearance in rounds

Significative by rounds amount

Global Insurers

Lead investors in the region

Significative by rounds amount
Geographic analysis by region.

In other regions like Africa, Oceania and South America, the 19 Insurtech significative startups have about 20 lead investors, most of them from the own startup geographic area of influence.

Insurtech geographical overview (2010-2019)*
Most representative Insurtech startups and lead investors: Other Regions

- **Oceania**: $74B; 16 startups; 20 lead investors in 19 significative startups
- **Africa**: $16B; 25 startups
- **South America**: $13B; 27 startups

$321M; 68 startups; 20 lead investors in 19 significative startups
Insight:

CEOs perceive Auto as the line of business to be most intensively disrupted in the near future.

Life and Commercial look less exposed to disruption. Maybe there are challenges to operate in these industries.

Health is the most balanced sector. Probably some fragments of Health’s value chain are easily disrupted, but underwriting and carrier are more challenging.
Impact/relevance of exponential technologies.

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

Insights:

Personalization, automation and digital data footprint of the insurance industry is being reflected in the CEOs’ answers.

The vast majority believe in Artificial intelligence and Big Data & Analytics as the main technologies to impact their companies in the next 3 years.

Blockchain is still not relevant for the respondents in the short term.

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?

Insights:

Product development is still discreet to use exponential technologies, giving the impression that it is not so trivial to translate customers data into products.

Distribution & Relationship will be highly affected by technologies in respondents’ companies.

Respondents intend to improve Underwriting & Risk Management by the usage of technology.
Survey results.

Goal achievement.

In your opinion, which one of the following challenges should your company address to achieve its goals?

- Take Advantage of New Regulations: 23 (52.2%)
- A Cultural Transformation Program: 33 (75%)
- Simple Processes: 31 (70.4%)
- 100% Digital Customer Experience: 25 (56.8%)
- Data Across all Value Chain: 23 (52.2%)
- Ambidextrous Organization: 9 (20.4%)
- Optimize Online Sale: 16 (36.3%)
- Digital Health Capabilities: 5 (11.3%)
- Reinforce On-Site Channels: 7 (15.9%)

Insights:

Digitalization and AI Applications are relevant pain points of this industry, consequently is the main issue insurtechs address. Respondents are aware that both points are essential to remain competitive.

Main Internal Challenges are simple processes and culture transformation, that are efforts to have more flexibility in all liquid ecosystems.

Data Integration and IT Transformation are also relevant and several startups are being created to attack this problem (Duck Creek and Unqork).

Survey answered by 44 CEOs and executives of insurance companies worldwide.
Conclusions

New business models

- New business models based on new technologies are becoming more relevant in the market

Insurtech Platforms & Marketplaces have been backed by investors during all the 2010-2019 period, showing that this business model has well capitalised the possibility to put in the same place offer and demand, giving more transparency to the Insurance market.

Both mature and newer technologies of insurtech facilitate the creation of value in an exponential way, through new experiences focused on a digital client, which demands the elimination of pain points throughout the traditional insurance process.

In 2019, On-demand and AINomics business models based on IoT or Artificial Intelligence gained in importance compared to others, showing that, fulfilling customer demands through the immediate provisioning of goods and services or creating experiences and hyper-personalized products are relevant in the market.

The USA remains leader

- The USA continued to lead the Insurtech arena; however, other regions began to increase their activity.

North America represented 62% of total 2010-2019 funds and 48% of total startups and had many local and active investors looking to finance disruptive and scalable companies.

Asia accounted for the 20% of total funds and the 15% of total startups and its lead investors were mainly local big ones, investing much more money per startup than in Europe, which represented 16% of total funds and 30% of total startups and where it seems to be more diversity when it comes to investors’ geographical headquarters.

Biggest amount of funds

- 2019, the year when Insurtech companies captured the biggest amount of funds

In 2019, insurtech funding reached $6.4B which is a 53% higher compared to 2018 totals and the hugest amount of the 2010-2019 period. Insurtech has been able to capture investors’ interest, managing to attract significant amounts of investment since 2018.

Despite the above, in 2019, the creation of new startups and the investments captured by these new companies showed the lower point of the period since 2016. The investors funds were channelled mainly to companies with market traction receiving in some cases, in 2019, the highest amount of funds of their history in financing rounds where money raised has no precedent. In mature financing Series, operations were highly concentrated in top 2 to 5 deals.
02 Insurance Companies in the Digital World.
Key figures under everis scope.*

In which sectors do insurance companies invest?

Between 2010 and 2019, Insurance companies have been active in the startup ecosystem, participating in 2059 startups of different industrial sectors where insurance, healthcare and financial services are the most-invested ones in 2018-2019.

Between 2018 and 2019, the set of Insurance, Financial Services and Healthcare industries almost doubled its market share in terms of number of startup invested by insurers compared to the period 2010-2019. This increase is explained almost entirely by the decrease in other industries not related with the core insurance sector. The set market share of the Insurance, Financial Services and Healthcare industries, in terms of money raised in funding rounds, also grows from the 45% obtained in the period 2010-2019 to the 66% of the last two years. However, this rise was softer compared to that of by number of companies.

Recently, insurers are spending more money in disruptive insurance related companies, but in earlier funding round types. On average, they have invested less money per company probably to avoid the implicit risks of companies in early stages. All these facts show that in the last two years, insurers are seeking opportunity in the financial and healthcare sectors, both related with the insurance core business, to develop new value propositions, acquire new technological advances and their increase share.

Key figures under everis scope.*

Number of startups

Between 2018 and 2019, Insurance companies have changed their behavior regarding to industrial sectors investments in the startup ecosystem.

<table>
<thead>
<tr>
<th>Year</th>
<th>Startups</th>
<th>Insurance, Financial Services &amp; Healthcare</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010/19</td>
<td>$38.6B</td>
<td>$17.4B</td>
<td>45%</td>
</tr>
<tr>
<td>2018/19</td>
<td>$1,267M</td>
<td>$836.5M</td>
<td>66%</td>
</tr>
</tbody>
</table>

2059 startups

*Considered under our research scope: includes companies which got funds from the main insurance groups in the period Jan. 2018 - Dec. 2019. Other includes manufacturing, retail, consumer goods and media, among others.
Representative* startups recently funded, where insurers have invested, by set of industrial sector.

Insurance companies emerge as investors in some of the most funded startups, approaching innovation, backing up new business models and strengthening distribution customer and relationships, particularly in P&C insurance. This kind of investment will enable insurers to offer value-added services to their clients.

Funding rounds 2018-2019
Insurance, Financial Services and Healthcare

<table>
<thead>
<tr>
<th>Industrial Sector</th>
<th>Funding Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance</td>
<td>$381M</td>
</tr>
<tr>
<td>Financial Services</td>
<td>$692M</td>
</tr>
<tr>
<td>Healthcare</td>
<td>$480M</td>
</tr>
<tr>
<td>Other</td>
<td>$293M</td>
</tr>
</tbody>
</table>

*Ranked by total funding amount

Online insurance provider for small businesses and entrepreneurs, with policies from general contractors to personal trainers.

**Next Insurance**

Metromile is the leading pay-per-mile car insurance company using data science and machine learning to make better and less complicated products.

**Metromile**

The New York-based business uses AI, chatbots and other innovative technologies to disrupt the home and rental insurance sectors.

**Lemonade**

Accolade is a personalized health and benefits solution. Connecting the widest array of personal health data and programs, the company improves the experience, outcomes and cost of healthcare to its clients.

**Accolade**

BlueVine offers a modern approach to small businesses financing. Its advanced online platform provides its clients with a flexible solution to everyday financial needs.

**BlueVine**

*Ranked by total funding amount
Representative* startups recently funded, where insurers have invested, are industries close to the Insurance activity.

Despite the insurance industry is the most relevant funding destination, as digital transformation of the sector evolves, insurers are approaching other innovative firms as a way to grasp the digitalisation of the insurance value chain.

Funding rounds 2018-2019
Software, Utilities, Cybersecurity, Auto and Transportation

Transportation & Logistics
- Jusda provides whole-process intelligent supply chain solutions from production forecasting, raw material procurement to factory manufacturing, distribution and dispatching, and then to the terminal consumption link (C2M2C).
- Total funding amount: $356.5M

Cybersecurity
- SecurityScorecard is a proprietary SaaS platform which helps enterprises gain operational command of the security posture for themselves and across all of their partners and vendors.
- Total funding amount: $112.2M

Software, Big Data & Analytics
- Mojio is an open platform that offers a solution for the rapid deployment of secure and scalable aftermarket connected car services to enterprise customers, including auto insurers.
- Total funding amount: $80.7M

*Ranked by total funding amount
Representative* startups recently funded, where insurers have invested, are industries close to the Insurance activity.

Innovative business models leveraged on new technologies, also capture the interest of Insurance companies in non-core sectors.

Funding rounds 2018-2019

Other

<table>
<thead>
<tr>
<th>Industry</th>
<th>Total funding amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consulting</td>
<td>$181M</td>
</tr>
<tr>
<td>Construction &amp; Real Estate</td>
<td>$71.5M</td>
</tr>
<tr>
<td>Industry</td>
<td>$57M</td>
</tr>
<tr>
<td>Other</td>
<td>$28.5M</td>
</tr>
</tbody>
</table>

*Ranked by total funding amount

Andela

Andela is solving the global technical talent shortage by building distributed engineering teams with Africa’s top software developers.

Ojo Labs

Ojo Labs is a technology company that has operationalized a patented conversational AI assistant, with its first application in real estate. Its products allow for consumers to deeply engage in a purchase process prior to interacting with a salesperson.

Atonarp

Atonarp is pioneering the field of chemical composition analysis by combining state-of-the-art electronics and data processing algorithms. Atonarp's Smart Spectrometer enables novel use cases and applications for manufacturers of medical equipment and devices.
Funding rounds of Insurtech invested by insurance companies (2010-2019).*

While historically insurers preferred to invest in early stages, they seem to be more interested in more mature series with those startups related to its core business.

*There are not funding rounds from insurance companies in Insurtech between 2010-2013.

2010-2013:

Seed
- Partica
- Cytera
- klay

Series A
- Matic
- Pillar

Series B
- fabric
- ime

Series C
- bima

Series D
- hubenda

Series E
- VRAND

Seed
- handi

Series A
- bind

Series B
- gobi

Series C
- coverlax

Series D
- coverlax

Series E
- coverlax

Late
- Oscar

2017:

76 Insurance Companies

2018:

147 Funding rounds

2019:

97 Insurtech startups**

*Considered under our research scope: startups founded from Jan. 2010 to Sept. 2018, excluding those startups founded in 2013 with less than $3M and startups founded between 2014-2016 with less than $1.5M.
Funding rounds of Insurtechs invested by insurers (2010-2019).*

Most common investments

According to their investments, insurers have changed their strategy in the last 3 years. Now, seed and early series funds concentrate around 75% of the funding rounds of the Insurtechs invested by them.

Although most insurers remain passive spectators regarding Insurtech activity and digital transformation compared to other industries, the fact that they have invested more in early rounds seems to show that they are waking up and understanding the needs of the market in order to maintain and potentially increase their share in it. They are willing to take more risks. However, there is something that haven’t changed: the later the funding round or series, the more the amount of money raised by the Insurtechs.

Outliers

Most of outlier startups invested by insurers focus their activity in the P&C line of business, especially in the smart mobility level of the Insurtech ecosystem.

Car-sharing and the potential development of autonomous cars will change the whole automotive industry, affecting auto and also travel insurance business segments. Insurers need to advance in defensive strategies and innovative methods to develop products, services and partnerships to support the emerging business needs**.

Key facts

- Foundation Year Between 2010-2014
- Total founding amount 8% of the market

The Insurtechs which have got the later funding rounds both belong to the healthy living ecosystem.

Partnership

Oscar Health, considered at the top of the Insurtech ranking and famous because of its telemedicine service, recently teamed up with big insurer Cigna to offer plans branded as “Cigna + Oscar” for small businesses.

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*Considered under our research scope: startups founded from Jan. 2010 to Sept. 2018, excluding those startups founded in 2013, with less than $3M and startups founded between 2014-2016 with less than $1.5M.

**There are not funding rounds from insurance companies in Insurtech between 2010-2013.
Funding rounds of non-core business* startups invested by insurers (2010-2019).

Comparing the insurance companies’ investments in the startup ecosystem from 2010-2019 to the most recent years, we have found that in the last period they have preferred to invest in their core business firms. While in the period 2010-2019 half of the startups invested by insurers were from other sectors like industry or consulting, now the investments are focused on insurance companies or related businesses.

* Non-core business – or Other sectors - includes manufacturing, retail, consumer goods and media, among others.

Despite the distance, non-core startups’ investments made by the insurers share the same trend than the Insurtechs: most of them are concentrated in early rounds, especially in series A and B. On the other hand, proportionately, these early rounds investments in non-insurance startups have raised more money than the later rounds.
Representative Insurtechs invested by insurance companies, by business line (2018-2019).

Insurers need to reinvent their sales and distribution models, specially in high competitive environments such as the Auto or Home insurance. In this context, alliances with Insurtechs and their developments are very attractive to gain traction.

Lemonade is a licensed insurance carrier that offers homeowners and renters insurance powered by artificial intelligence and behavioral economics.

Hippo offers intuitive and proactive home insurance by taking a smarter, tech-driven approach.

Insurtech platform that uses machine intelligence to remove friction from residential real estate transactions.

These Insurtechs are good examples of digital sales on commercial segment with application of technologies to increase the efficiency of the product.

Smart Mobility*

Insurtechs meet the need of low pricing insurance, transparent and fair policies in Auto insurance, but with a personalized offering.

Insurers should explore these kind of models to open new revenue opportunities in the Auto insurance.

Home Safe Home*

Insurtech platform that uses machine intelligence to remove friction from residential real estate transactions.

Insurers could update the risk assessment and pricing models with this type of processes and technologies.

Commercial*

Next Insurance allows customers to acquire personalized insurance with affordable prices and the support of artificial intelligence to facilitate the process.

These Insurtechs are good examples of digital sales on commercial segment with application of technologies to increase the efficiency of the product.
Representative Insurtechs invested by insurance companies, by business line (2018-2019).

The insurtechs’ value proposition could complement the digital strategy of insurance companies. Insurtechs offer opportunities to improve existing products, services and business models. Insurers look outside their companies in insurtechs as a rich source of ideas and innovation.

Healthy Living*
These insurtechs use technology to offer a superior customer experience with lower cost in Health insurance.

Insurers can deploy these types of technologies to increase the customer experience or to free employees from routine tasks and repetitive work to revenue-generating tasks or added-value works.

Business Shield*
AI and data analytics allow these insurtechs to offer better opportunities, prices and coverage.

As analytic, robotics and AI continue to advance, insurtechs will increase their capabilities in underwriting, pricing, and actuarial areas.

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Healthy Living*
These Insurtechs are revitalizing a business line as traditional as Life insurance, with a new customer experience.

Insurers could add this kind of models to increase the digital customer experience in Life segment with innovative initiatives.

---

<table>
<thead>
<tr>
<th>Insurtech</th>
<th>Description</th>
<th>Total funds raised</th>
<th>Latest investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singlife</td>
<td>Singapore Life provides digital life insurance services.</td>
<td>$175M</td>
<td>$90M</td>
</tr>
<tr>
<td>Ladder</td>
<td>Offers life insurance in an easy way based on innovative technology.</td>
<td>$164M</td>
<td>$10M</td>
</tr>
<tr>
<td>Yulife</td>
<td>Yulife is a lifestyle insurance company that brings together life insurance, wellbeing, and rewards in one simple app.</td>
<td>$168M</td>
<td>$12.7M</td>
</tr>
<tr>
<td>Finleap</td>
<td>Finleap is an international Fintech company builder with its entire operations offered through the digital platform.</td>
<td>$116M</td>
<td>$90M</td>
</tr>
<tr>
<td>Acko</td>
<td>Acko is a new-age online insurance policy builder with its entire operations offered through the digital platform.</td>
<td>$143M</td>
<td>$90M</td>
</tr>
<tr>
<td>Riskgenius</td>
<td>Riskgenius Platform applies AI to insurance policies. Its customers leverage its custom algorithms and workflow modules.</td>
<td>$165.5M</td>
<td>$12.7M</td>
</tr>
</tbody>
</table>

*Read more detailed information about ecosystems in Chapter 3 “Liquid Ecosystems”
Insurtechs invested by insurance companies, by technology and ecosystem* (2018-2019).

Cloud & Mobile Applications

- 41 (63%)
- $3.8B

Total Startups (2018-2019)  Total Fundings

Most insurers are migrating their applications to the cloud with the main objective of offering cost reduction through the flexibility, reliability and security that this technology implies**. This trend is affecting the insurers investments in startups where cloud and mobile applications technology is the most relevant technology in terms of funding and number of companies invested.

Cloud and Mobile Applications and artificial intelligence leverage Insurtech business models where data is analyzed and used to customize products, micro-segment markets and distribute products in a more efficient and transparent way.

Cross

*Go to chapter 3: Liquid Ecosystem

**Hype Cycle for Digital Life and P&C Insurance, 2019 (Gartner, 2019)
Blockchain is a technology with huge opportunities in the insurance sector, especially regarding smart contracts, but it is in an embryonic state yet.

The value proposition of Insurtechs based on IoT technology is data enabling personalised insurance pricing: sensor data enables lower premiums for less risky behavior as well as faster access to verified risk management information. However, its use is limited by the low interest of the end user in regularly sharing IoT data, which reduces the incentives of insurers to invest in new companies or IoT implementations without proven results.

Although virtual and augmented reality applications have a great potential regarding home and health insurance, in the last two years there has been a lack of emerging use cases outside of pricing and marketing of the value chain*. This fact also seems to be exposed in the insurers’ investments because they did not invest in Insurtechs that develop this type of technology.

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* Hype Cycle for Digital Life and P&C Insurance, 2019 (Gartner, 2019).
**Insurwave: the complete story with EY (Insurblocks, 2018) Ecosystem.
***AXA XL partners with Parsyl to offer enhanced Marine risk prevention services, (AXA XL, 2018).
**Most active insurers in the Insurtech landscape.**

While in the period 2010-2019 most of the insurers investments in the Insurtech ecosystem were made by American companies, from 2018 to 2019 both European and APAC companies increased significantly their market shares. European companies were the most active ones.

**TOP 10 - Which are the insurers who have invested in more Insurtechs between 2010-2019?**

<table>
<thead>
<tr>
<th>Insurer</th>
<th>Investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axa</td>
<td>20</td>
</tr>
<tr>
<td>MassMutual</td>
<td>20</td>
</tr>
<tr>
<td>Munich Re</td>
<td>14</td>
</tr>
<tr>
<td>Allianz</td>
<td>14</td>
</tr>
<tr>
<td>American Family</td>
<td>12</td>
</tr>
<tr>
<td>Aegon</td>
<td>11</td>
</tr>
<tr>
<td>Nationwide</td>
<td>9</td>
</tr>
<tr>
<td>RGA</td>
<td>8</td>
</tr>
<tr>
<td>Liberty</td>
<td>7</td>
</tr>
</tbody>
</table>

**TOP 5 - Which are the insurers who have invested in more Insurtechs recently (2018/19)?**

<table>
<thead>
<tr>
<th>Insurer</th>
<th>Investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Munich Re</td>
<td>8</td>
</tr>
<tr>
<td>Allianz</td>
<td>6</td>
</tr>
<tr>
<td>RGA</td>
<td>6</td>
</tr>
<tr>
<td>Axa</td>
<td>5</td>
</tr>
<tr>
<td>American Family</td>
<td>12</td>
</tr>
</tbody>
</table>

**From 2018 to 2019, 60% of the Insurtechs invested in by insurers have their headquarters in North America; 23% are European-based Insurtechs and 18% are APAC* and Israeli Insurtechs.**

**Nearby the 70% of the American elections to invest are the ones of their own region. They have invested more in B2B2C companies than in other kind of models.**

Technologies: Cloud, Mobile & Applications and AI.

**European insurers have invested more than 50% of the total in number in American Insurtechs. They also prefer to invest in cross industry companies.**

Technologies: Cloud, Mobile & Applications and AI.

**Recently, Asian insurers have invested mostly in non-life insurance business lines and in Marketing & Distribution regarding the value chain.**

**Technology: Cloud, Mobile & Applications.**

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*Includes: Australia, New Zealand, China, Hong Kong, Indonesia, Japan, India, Singapore, Thailand, Vietnam, Philippines, among others.
Survey results.

What is the opinion of CEOs on the maturity of digital transformation.

How would you position the evolution of the digital transformation maturity of your company according to the following attributes?

Insights:

More than 66% of the respondents consider their company in a mature level (level 4-5) in the formalized digital strategy and the dedicated teams and budget attributes.

On the other hand, the lowest levels of maturity are identified in the attributes related to having the KPI's in place, as well as the current impact on business results.

Survey answered by 44 CEOs and executives of insurance companies worldwide.
Position in the insurtech ecosystem.

How do you think your company is going to position itself in the insurtech ecosystem?

- 15 (34.1%) Accelerator
- 8 (18.2%) Capital
- 22 (47.7%) Strategic

Insights:
The majority of respondents think that strategic positions are more consistently implemented in the short term by insurance companies. This sector is an expert on strategic relationship – usually the underlying assets business is external, making partnerships crucial.

Accelerators are fairly cheap and easy to implement, but the innovation and business improvements require the creation of an entire ecosystem that can be challenging to create.

Capital investments are more risky. This decision differs from business as usual with uncertain ROI, intangible assets acquisition and divergence in culture, operational methods and conflict between stakeholders’ positions.

Collaboration with the ecosystem.

Did you collaborate with a startup and/or digital lab/accelerator? If so, could you please provide some details (e.g. name of startup/digital lab, etc.)?

- 30 (68.2%) Yes
- 14 (31.8%) No

For this collaboration, did you require any specific level of maturity to startups and their solutions?

- 24 (80%) Yes
- 6 (20%) No

Did you collaborate with...a startup and/or digital lab/accelerator?

- 18 (60%) Startups
- 6 (20%) Accelerator
- 6 (20%) Digital lab

Insights:
The interest to collaborate and innovate is evident in this industry. Most of the respondents have explored one of the options, giving the impression that they are proactively acting towards disruption.

80% require specific level of maturity, signaling more structured processes of collaboration.

Survey answered by 44 CEOs and executives of insurance companies worldwide.
Survey results.

**Strategy alignment.**

Is the solution aligned with your business and IT strategy?

- Yes: 28 (93.3%)
- No: 2 (6.7%)

**Insights:**

Most respondents mentioned that the solution provided by insurtechs/startups is aligned with their business and IT strategy. This is probably due to the understanding that startups have today about how to collaborate with solutions adapted to the more traditional industries, disrupting with more innovative and technological proposals.

Survey answered by 44 CEOs and executives of insurance companies worldwide

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**Private funds trend towards the Insurtech sector.**

Considering the growing sustained trend of private funds towards the insurtech sector in the last two analyzed years (2016-2018), do you think this trend will increase, remain stable or decrease over the next 3 years?

- Increase: 29 (65.9%)
- Decrease: 2 (4.5%)
- Remain Stable: 13 (29.5%)

**Insights:**

Increasing private funds towards insurtech is a trend recognized by most respondents to continue growing. This is an evidence that the sector is not saturated and rather is perceived to give positive returns. Aligned with the mentioned perception is the large minority of respondents to believe in the shift of the trend.

Survey answered by 44 CEOs and executives of insurance companies worldwide
Survey results.

Investment in the startup ecosystem.

Assuming your company has a committed budget to invest in the startup ecosystem, do you think it will increase, remain stable or decrease over the next 3 years?

- Increase: 16 (36.3%)
- Remain stable: 26 (59%)
- Decrease: 1 (2.2%)

Insights:
Respondents see private funds as an increasing trend, but are reluctant to increase their own budget.
The insurance industry might prefer to be second movers and avoid direct startup investment risks, consistent with the intention to form strategic alliances.
In addition, this fact can reflect the abundance of money available for this purpose already.

Survey answered by 44 CEOs and executives of insurance companies worldwide

Insurance business at risk due to insurtech activities.

In 3 years, what percentage of the insurance business do you think could be at risk due to Insurtech activities?

- 0-20%: 33 (75%)
- 21-40%: 8 (18.1%)
- 41-60%: 2 (4.5%)
- 61-80%: 1 (2.2%)
- 81-100%: 0

Insights:
Most of the respondents do not believe 3 years is enough for insurtechs to put large part of their business at risk.
Probably, insurtechs of the past 3 years are not perceived to risk reasonable part of existing business, but to enlarge the opportunities.

Survey answered by 44 CEOs and executives of insurance companies worldwide
Insurtech Global Outlook 2020
Chapter 02 • Insurance companies in the digital world

Startup’s levels of maturity.

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

- 2 (4.5%) Seed Capital
- 16 (36.3%) Milestones for minimum viable product development / expansion markets (Series A-B)
- 11 (25%) Scalability (Series C-D)
- 14 (31.8%) Consolidate established business models in the market (late stages)
- 1 (2.2%) Blank

Insights:

It is observed a relatively balanced sample. In opposition to structured collaboration, the direct investment by respondents does not seem to have a methodic approach.

Also, this fact could be reflecting large budgets or different investment arms goals.

Partnership with startups.

In your opinion, why do you think a startup may be interested in partnering with a company like yours? (Please mark those cases that apply. You can choose one or more)

- 13 (29.5%) Regulatory issues
- 20 (45.4%) Get funding
- 17 (38.6%) Knowledge of the traditional market
- 25 (56.8%) Share access to the customer base
- 18 (40.9%) Complementary products
- 11 (25%) Share risks of policies
- 1 (2.2%) Other

Insights:

Funding and Customer base are seen as the main reasons for startups to partner with respondents’ companies. This is a natural interest and aligned with what was expected.

The variables Regulatory issues, connected with Knowledge of traditional market, are indeed complex and require more resources to overcome.

Survey answered by 44 CEOs and executives of insurance companies worldwide.
Survey results.

**Barriers in partnerships with startups.**

According to your company's experiences, what are the main barriers to partner with startups?

- IT security: 22 (50%)
- Differences in culture & management: 27 (61.3%)
- Differences in operational processes: 10 (22.72%)
- Financial investment restrictions: 8 (18.1%)
- Regulatory issues: 12 (27.2%)
- Other: 1 (2.2%)

**Insights:**

Startups are unstructured with culture and workflow diverging from the industry guidelines, creating a challenge to align synergy and to form partnerships.

IT security is an important concern for respondents, since data breach probability increases with systems expansion or changes. Companies are more careful to integrate with startups.

Survey answered by 44 CEOs and executives of insurance companies worldwide.
Conclusions.

Partnerships in business line

Insurers/Insurtech partnership in all insurance business lines focus to tap challenges

Insurers and Insurtechs are partnering in all insurance business lines. Insurers’ main objectives, common in all business lines, are to have better customer retention, new revenue streams and operational efficiency improvements, even though each business line has its own challenges and opportunities.

Smart home products, autonomous vehicles, new easier and simpler life products and hyper-personalised health products, among others, are imposing challenges for insurers to enhance their traditional value proposition, in order to adapt to the new digital needs and offerings appearing in their particular business line.

Insurers investment

Insurers investment focused on its core business

From 2010 to 2018, insurers actively participated in the startup ecosystem, investing in nearly 270 tech firms in all sectors as a way to approach innovation based on new technologies and learn how to improve their existing processes.

In 2018-2019, Insurers have been investing more intensively in startups related to insurance activities, which rounds became larger and their business models are directly related to their core businesses.

The insurers’ approach for collaborating in Insurtech is shifting to investing or acquiring, where Insurtech firms act as disruptive technological suppliers whereas insurers offer knowledge and extensive customer bases.

To keep creating value

The big challenge for insurers is to keep creating value in a new digital and reshaped insurance value chain.

The digitalisation of the insurance value chain is converging to one critical task: the capture, management and analysis of information to create incremental value.

Innovations based on data and technology facilitate simpler products like parametric insurance and highly-tailored products and pricing which are at the same time creating opportunities to drive new products and channel new customer strategies for insurers.
The liquid ecosystem.

From a value chain model to a constant flow network.

Probably, one of the changes that the insurance industry will experiment in the upcoming years is the fact that companies are transforming the way they interact with their customers. But, how? Relationships occur both ways, where a network of empowered customers (better known as personas), tech-savvy companies and different actors work together to deliver seamless and fluid experiences in a liquid ecosystem.

The liquid ecosystem goes beyond the classic categorization of sectors, value chains, business models or geographies; breaking the affected barriers between them and making all the ecosystems actors coexist inside a constant flow network.

The flow of movement within ecosystems is led by liquid personas who have a unique need. For so, they choose a platform to manage it in a hybrid way where they do not contemplate individual processes but all-in-one experiences where everything is included.

Let’s think of a person in Barcelona (Spain) renting an electric car from a Germany-based startup, integrated with a navigation technology system developed in the USA with fully comprehensive insurance policy from a Swiss insurer. In the eyes of the user this is a seamless mobility experience.

In the disruptive technologies arena, it is a must to understand that it is not exclusive that industries themselves develop innovations within ecosystems. It is interesting to see how companies from other sectors bring highly innovative and technological proposals to provide a product or service with added value or with a different flavor than the current one.
The Liquid Ecosystem

Persona & B2B B2C in the center

Companies and intermediaries

Liquid disruptors

Ecosystems
For us, mobility has to do not only with the use of vehicles or commuting, but with all the time that people spend outside their homes or workplaces and how they decide to move between different places. It doesn’t matter if the trip lasts 1 minute or 10 hours. Nor if it is done in a private vehicle, in a commercial vehicle or traveling with unknown people.

The world of mobility is changing by leaps and bounds in recent years. Whether due to regulatory changes, due to the high cost of owning a vehicle or the increasing environmental awareness, users are embracing the new transport models.

The lowering of the price of traditional rental cars, the emergence of shared car services and vehicle rental per minute (including motorcycles, bicycles and scooters) or the appearance of vehicles for hire (which have challenged the taxi sector) have radically transformed the way people move through cities. And we must also consider public transportation, which thanks to the exploitation of data, will be improved to adapt to the growing demand.

Elseways, many on-demand courier services have appeared (home delivery, packages, shopping in supermarkets…). This is because people's lifestyles have changed in such a way that the number of companies in this sector has been multiplied in order to meet the demands of users. Additionally, these users have less and less time and tend to buy online and receive products at their homes or workplaces, several times in less than 24 hours.

Likewise, people have more and more economic capacity to travel, so new companies and business models have also emerged around this new reality. From online flight and hotels comparators to platforms that bring together owners of tourist apartments and tenants who prefer this option instead of hotels.

All of the above changes represent a risk for insurers, who see, for example, how the number of auto policies associated with owned cars decreases. But on the other hand, new opportunities arise, such as the policies for ride-hailing service drivers, which are not covered while driving on their own (in their free time) or while waiting to receive requests from users (until the service is accepted). It will also change the way of insuring vehicles depending on the route chosen by the driver or the way he or she behaves while driving. And, of course, it also will affect carriers.

But, as well, it will happen with the policies associated with those vehicles that are in the spectrum of car-sharing (those that are rented for minutes in urban areas), car-sharing peer-to-peer (where the one who rents the car is a person and not a company) or ride-sharing (where the users are the ones to decide the route and share it with other users in exchange of a fee).

It will also be important the service provided by insurers, which should be increasingly adapted to each user, should be quick and easy to use, requiring the least effort from the client. In short, making life easier for him or her.

This mobility ecosystem will incorporate new actors. And those existing to date will have to give up part of their value chain to be transferred to the new ones. In this scenario, startups and companies that offer value through new technologies will occupy a relevant space in the ecosystem. What is certain is that many companies will have to change their current focus and move from offering their traditional portfolio to becoming value service providers for the new consumer.
Smart Mobility.

How TechGiants are reshaping the Smart Mobility ecosystem

Alphabet is leading the Smart Mobility ecosystem. It is the TechGiant that is more committed to this new scenario; it is investing in companies that go from the development of autonomous cars to commuting by using different types of vehicles (ride service hailing, food delivery, and a micro mobility system with electric bikes and scooters) or fleet management systems based on the choice of the most optimal or safest routes.

This trend will have its effects on the insurance industry in the upcoming years, when travelers or transport companies will be able to receive directly from their service provider a personalized insurance offer according to their specific needs. Baidu is also leading this ecosystem in Asia with the Apollo project.

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 $350M
Cambridge Mobile Telematics $500M
Friday $127M
Root Insurance offers Auto insurance in a total digital process. This company is centered on its app, in which customers can buy personalized or standard plans that include liabilities, vehicle damage and medical coverage. Root's app collects data in customer's phones to determine customers rate using machine learning and Artificial Intelligence based on how they drive, and merges it with conventional data such as drivers age and home location to finally set the best plan and price.

**Business model**
Root relies on smartphone existing technology to gather clients information to better provide car insurance personalization and prices. The company has capacity to model clients risks better than conventional insurance methods to offer more suitable plans and prices. Moreover, Root creates incentives to avoid adverse selection in its business, rewarding good drivers that are crucial to insurance business.

The whole digital process from purchase to claim is operationally efficient and scalable due to its Artificial Intelligence and machine learning competences to attend customers demands.

**Market**
Metromile and Root are expanding to acquire American Customers in new States. The company high expansion to new American states increased the number of claims giving the impression that the model differs within USA - and very likely in other countries.

This framework presents the challenge for companies with similar value proposition to grow fast and adjust risk modeling at the same pace, making data extremely valuable.

**Milestones**
- **2015**: Root is founded in Columbus, Ohio.
- **2015**: First Round of investment of USD 5M.
- **2016**: Root doubles the states where it operates, expanding to 9 additional states.
- **2018**: Root premium written surpasses Metromile.
- **2019**: Last round of funding (series E) with USD 350M.

*RELATED STARTUPS: Metromile / Friday*

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Cambridge mobile telematics is a technology company. Cambridge is developing solutions to provide insights regarding drivers behavioral risks, increasing accuracy and better fleet management of owners and Insurers. The technology works towards mobile existing sensors and IoT to collect and process data improving risk assessment, tracking and insights to its clients.

**Business model**
Most of this Cambridge clients are insurance-related companies that desire to collect relevant and actionable data for their business. Several Insurers and Insurtechs are investing in claims automation or telematics, signaling high potential market to Cambridge mobile telematics that counts with a strong technical team of founders.

Given the nature of the business model, Cambridge can not only create and improve its own product with machine learning and data, but also have a quick expansion.

**Milestones**
- **2010**: Founded in 2010, Cambridge mobile telematics is a technology company.
- **2018**: Source Code telecommunications partner with Cambridge mobile telematics.
- **2019**: The company partner with Duck Creek technologies, entering P&C market.
FRIDAY is the first insurance company to introduce pay per mile in Germany. Perceived with fair Policy prices by its customers, the company uses an efficient pricing modelling and leverage knowledge from Swiss Baloise Group to offer simple insurance plans for cars and households in a digital yet traditional process that includes quotation, purchase and claims.

Business model
FRIDAY offers mainly two products: car and household insurance to end customers, and an API to integrate its products with brokers and partners. The main plans have optional additional packages such as travel and Eco to compensate for Carbon emissions in one click. The whole process is online with premium prices and coverage rules explicit on the front end for the customer.

According to Gert De Winter, Baloise Group’s CEO, the simple safe strategy, in which FRIDAY is involved, is one of the most profitable non-life portfolios in Europe and shows the commitment in the digital insurer company.

Market
The company is present in 22 countries mainly in Europe with Headquarters in Berlin. FRIDAY products and services are provided digitally to customers that are used to buy traditional insurance or new entrants that values digital engagements and tailored products - that includes carbon compensation, shared cars and on-demand coverage while travelling or borrowing a car.

FRIDAY strategy involves third party investors in a media for equity deal to acquire more customers. In addition, the company is searching for more third party investors.

Milestones
- 2017: Foundation date of FRIDAY with support of Baloise Group.
- 2017: Operation starts with auto insurance focus.
- 2018: Launch of FRIDAY +ECO an attempt to attend offset carbon emission demand by customers.
- 2019: Expansion of portfolio with household insurance.
- 2019: Investment round led by Baloise Strategic Ventures.

RELATED STARTUPS:
Metromile
We like to envision the home as that place where people spend the most of their time. So that means a lot of things... We are talking about a lot of spaces that now, as a first glance, have nothing to do with what we consider a home according to the usual meaning of this word.

But we go much further. From our point of view, the home ecosystem is a mix that includes the house as a place where people often spend a few hours; but also their offices or workplaces, where people spend more than 8 hours a day and where they often prefer to receive packages of purchases they make online. Or even school or university, places where students are trained to be what they will be in the future.

It is in these spaces where we interact with others, where we enjoy our leisure (here we include music, social networks, messaging services, etc.), where we eat, where we educate our children, where we practice our hobbies or where our pets live. And above all it is the place where we store everything we buy (appliances, furniture, clothes, devices, books...) and it is the space to which we associate our subscriptions (music, cinema, television...).

All these examples are directly related to our way of life, and this has changed radically in recent years thanks to the capabilities of technology.

This is precisely the ideal space for the entry of technology companies, for the emergence of new players or for the digitalisation of traditional companies.

Let's think about how the improvement in connectivity and the 5G network will begin to allow homes to become connected homes. Aspects as different as home cleaning (autonomous vacuum cleaners), security control (cameras, smart locks, sensors and alarms), smart refrigerators, energy eco-efficiency (thermostats, lighting, smart plug control ...), systems for fire and smoke detection ...; and especially speakers and voice assistants that allow the control of many of these devices remotely.

All these devices will generate a huge series of data, which will serve companies to offer services increasingly adapted to the needs of people based on their behaviour. But it will also help insurers to offer personalised policies (if a house is safer or if the house can protect itself from the weather when it gets worse, the premium the user will have to pay will be cheaper). Users are going to have more and more connected devices in their homes and there is also a risk of receiving cyber attacks, which could cause power supply failures, for example.

In this new ecosystem, telecommunications companies, connected hub providers and insurance companies will play an important role.
Home Safe Home

How TechGiants are reshaping the Home Safe Home ecosystem

Amazon is the leader in the Home Safe Home ecosystem. Since its first launch of Amazon Alexa in 2014, it has been building more than a smart home gadget ecosystem, is about new touch points with users inside the e-commerce and media environment. Such is the case of the partnership with the New York-based insurance company Travelers Insurance, offering the user the possibility to manage its home insurance policies and get home safety and maintenance tips by simply asking Alexa.

For the insurance industry it is important to work closely with the home devices developer and manufacturer companies, since there is a lot of data collected that can later be used to obtain insights on how people behave in their homes and in a future have the ability to detect possible home accidents and lower the high claims costs of insurers.

65% of the investment in the startups of this ecosystem (a total of 35 companies) in the last year was concentrated by three American companies who are trying to transform the traditional home insurance: Lemonade, Kin and Hippo.

In 2019, Lemonade demonstrated to be running in a fast pace. With the investment of $300M led by SoftBank, it will be able to start their expansion beyond the US with a first step on Europe and to explore new product lines. Also Hippo will start its expansion outside the US with its latest investment. On the other side Kin will continue growing on the national geography.

Regarding new players in the home ecosystem, a new startup was founded during 2019, the Croatian Worig, who raised $65K.

Keep an eye on

More detail on this subject? keep reading the following pages
**Lemonade**

Get insurance in 90 seconds with Lemonade’s app

Lemonade is an insurance company offering protection of personal belongings kept in customers homes. The digital platform counts with Artificial Intelligence to manage claims and uses partnerships with reinsurance companies to cover its portfolios. All products and services are optimized through technology with data scientists and usage of customers data that allow Lemonade to provide personalized and transparent policies with suitable premium-risk to each customer.

**Business model**
Lemonade offers coverage to belongings inside customers homes. Asymmetric information leads to inefficient premiums and attracts customers’ with poor behavior (lemons), that is what Lemonade tries to avoid with fair pricing model and transparent policies. The company works to decrease operational costs via automation of insurance processes and have a flat fee business model - that is charged in all premiums to cover operational costs and expected profits. The residual, then, is used to pay claims and reinsurance partners. After all this costs are covered, Lemonade invests in social causes (“Lemonade Giveback”). The latter is a extra effort to incentivize less selfish acts from customers and frauds.

**Market**
The company operates in Germany and most of American states, making Lemonade one of few Insurtechs present in more than one continent.

Given the success of Lemonade, this model of efficient and personalized pricing in digital platforms is one step closer to the maturity.

For instance, few large Insurtechs in USA seem to concentrate a disproportional part of the funding and market. Given the success of Lemonade, this model of efficient and personalized pricing in digital platforms is one step closer to the maturity. For instance, few large Insurtechs in USA seem to concentrate a disproportional part of the funding and market.

**Milestones**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>2015</td>
<td>Founded year. In the same year Root Insurance and Wefox are founded.</td>
</tr>
<tr>
<td>2017</td>
<td>First annual donation. Giveback launch.</td>
</tr>
<tr>
<td>2018</td>
<td>Lemonade files a lawsuit against Wefox group for infringement on intellectual property.</td>
</tr>
<tr>
<td>2019</td>
<td>SoftBank leads the USD 300M funding round.</td>
</tr>
</tbody>
</table>

**Total funding amount**
USD 480M

**Insurer Investor**
Allianz, Allianz X

**Country**
USA

**Employees**
101-250

**Founders**
Daniel Schreiber & Shai Wininger

**Headquarters**
New York

**Type of client**
B2C

**Line of Business**
Home, Product Design & Development

**Value Chain**

**Industry**

**Related Startups:**
Metromile / Naked / WEFOX

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**Hippo Insurance**

Based in San Francisco, California, Hippo is a home insurance company with a proactive loss prevention approach and automated coverage process. Using smart devices, Hippo focuses on prevention and home safety to provide premium discounts and diminish the claims of possible fire, water damage and break-ins of its customers homes. The whole insurance process from purchase to claims can be assisted by phone, chat, email or twitter.

**Business model**
Hippo lowers premium prices by automating the insurance process and diminishing claims through smart devices. This insurtech works with several partners to hold their policies’ risks, reinsure its portfolio and underwrite policies. Also, Hippo provides its own coverage products with complimentary smart sensors and tailored policies to current lifestyles with different sets of home belongs. Hippo’s online platform sells partners products and recognizes customer’s home features automatically. The company counts with an edge technology to operate, while developing products to adapt current customer lifestyles trends.

**Market**
Hippo is a licensed insurance company and operates in 20 US states. Even though Hippo uses technology to automate the insurance process, the company focuses on the user’s whole experience using concierge claim service and technology to enhance and personalize home owners insurance processes. The company also avoids risks rejecting certain types of properties coverage, but offers partners products as part of its portfolio to cover additional needs from its customers.

**Milestones**

<table>
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<td>2015</td>
<td>Founded.</td>
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<tr>
<td>2016</td>
<td>Seed provided by Thomas Whiteaker followed by series A round led by Horizon Ventures.</td>
</tr>
<tr>
<td>2017</td>
<td>Hippo Insurance expands to California.</td>
</tr>
<tr>
<td>2019</td>
<td>Large investment by BOND leading Series D round.</td>
</tr>
</tbody>
</table>

**Total funding amount**
USD 209M

**Insurer Investor**
Munich Re Ventures

**Country**
USA

**Employees**
101-250

**Founders**
Assaf Wand & Eyal Navon

**Headquarters**
San Francisco

**Type of client**
B2C

**Line of Business**
Home, Product Design & Development

**Value Chain**

**Industry**

**Related Startups:**
Hippo Insurance Co
Kin offers homeowners insurance products to protect customer’s homes and related assets against different types of risks such as flood, hurricanes and theft. Through an online platform, Kin collects and analyzes data to recommend a suitable coverage and provides home devices deals that can be purchased by its customers. The whole process is digital and transparent, allowing customers to buy intuitive coverage in minutes.

**Business model**

The company personalizes home insurance providing coverage for additional risks such as guest medical expenses (in case someone is hurt at customer’s home) and hurricane protection. Kin analyses different sets of data to recommend personalized insurance or additional services and smart home devices, increasing the coverage efficiency and lowering potential risks.

Kin is an insurance provider and connects customers with partners. The company is paid commission and uses partners to underwrite, reinsure policies and offer additional connected security devices.

**Market**

Kin is expanding within USA- California is in the company expansion plan and is available in Florida, Alabama, Georgia and Texas.

The company owns a recommendation system that searches for the best coverage available to each customer specific needs working with partners to build plans, secure homes through smart devices and reinsure its portfolio to satisfy American homeowners insurance demand for natural disaster, theft and other coverages.

**Milestones**

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<tbody>
<tr>
<td>2016</td>
<td>Foundation year of Kin Insurance.</td>
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<tr>
<td>2017</td>
<td>Kin seed Round led by 500 startups in its second consecutive leading round.</td>
</tr>
<tr>
<td>2018</td>
<td>Caribou Honig, QED Investor founding partner, joins Kin Insurance board.</td>
</tr>
<tr>
<td>2019</td>
<td>Ventures round of USD 47M.</td>
</tr>
</tbody>
</table>
People in developed countries are living longer and longer. The progressive disappearance of diseases, together with improvements in lifestyle habits, have meant a great change in recent decades. Living longer and doing it better has become one of the challenges of our time.

For years we have seen how people are more interested in eating healthier and exercising more. Taking care of oneself has become an important part of life, and it is no longer done only as a response to the excesses committed with food or drink or by the lack of physical activity, but it is done in a preventive way.

It is already a lifestyle in which the user is informed and selects the ingredients of the meal (both those bought in supermarkets and those consumed in restaurants) and where nutritionists consultations are also used to improve the way of eating and, therefore, of having a better health.

Sports practice is another aspect related to this change into healthier lifestyles. People are increasingly aware that exercising helps them have a better quality of life. And as with food, it's not just about everyday life, but it has its benefits in the future.

For many years now, and progressively, people have spent part of their time and budget practising sports on their own or in sports facilities. In addition, thanks to wearable devices, they know their performance and evolution and are actively involved in maintaining this lifestyle.

Health companies and insurers are also impacted by this change in longevity and new healthy lifestyle habits. They are starting to reward users (with discounts on premiums) that show them that they take care of themselves on a daily basis, since, among other factors, healthier users generate less hospitalization costs.

On the other hand, thanks to the use of data, medicine and health services can be increasingly preventive and will help people much earlier, without waiting for symptoms to be more noticeable. Likewise, advances in the field of genomics will allow the production of hyper-personalized medicines designed specifically for each patient.

The challenges for the insurance industry in relation to people’s health are many, but so are the opportunities that arise for insurers.
Healthy Living

How TechGiants are reshaping the Healthy Living ecosystem

Alphabet (including CapitalG and GV) is clearly heading the healthy living ecosystem surrounding itself from big names some of them are: Fitbit (Wearables), Calico (longevity and well-being research), Verily (life-science research), 23andMe (genomics), Oscar Health (insurance) and Doctor on Demand (telemedicine).

The insurance industry is a key actor in this ecosystem moving from its traditional role in the financial compensation to a prevention and mitigation partner of the healthcare industry.

The Chinese web giant Tencent is a strong player with its “everything app” - WeChat has integrated a messenger app with healthcare, insurance, payments, gaming among other features that is promoting the environment so a new ecosystem flourishes.

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, companies 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.


Keep an eye on

From A to Z in Healthy living in Insurance

Keep an eye on

More detail on this subject?
keep reading the following pages
From A to Z in Healthy living in Insurance
Clover

**Country:** USA  
**Headquarters:** Sunnyvale  
**Employees:** 501-1000  
**Founders:** Kris Gale & Vivek Garipalli

Clover is an insurance company in the USA focused on Medicare – the American Federal insurance Program for elderly. Customers can enhance their public health plan by adding Clover coverage that will provide from 24/7 doctors to online digital assistance. Clover works with its network of health providers that includes gyms, board doctors, pharmacy and in home care nurses. Since Clover’s customers are elderly people, the company offers both online and phone calls to assist new customers in the whole purchase process or existing customers to require any service or request help.

**Business model**
Clover has its own network of health care providers that is available to all customers that pay a premium to have personalized services. This customers must have Public Medicare coverage to acquire Clover insurance. That will solve main elderly pain points such as human assistance, pharmacy refill and in person check-ups. Clover business scalability requires an hybrid between technology and human labor due to its humanized and personalized services to attend this specific target customer.

**Market**
Since Clover operates as an additional to public health care, the company is exposed to structural risks. For instance, privatization of Medicare would probably change Clover entire operations and open new opportunities for the domestic sector in general. Clover is delivering its products and services in only seven American states which contrasts with the number of markets of other new insurance companies, signaling Clover specific challenges to expand.

**Milestones**
- **2013**
  - Founded Clover as insurtech to provide Medicare Coverage.
- **2017**
  - Clover becomes an insurtech Unicorn.
- **2018**
  - Clover improves financial results, but the company still shows losses.
- **2019**
  - GV participated in the last round of investment.

**RELATED STARTUPS:**
- **Oscar**
- **Bright Health**

**Waterdrop Inc.**

**Country:** China  
**Headquarters:** Beijing  
**Employees:** 70  
**Founders:** Shen Peng

Waterdrop is a Chinese platform that connects insurers with potential customers and allows people to start crowdfunding campaigns to help patients in need of financial support in health care expenses. Founded in 2016, the company counts with more than 80 million users and its mutual fund helped almost 10 thousands families.

**Business model**
The company operates with risk pooling efficiency and provides health insurance or mutual aid fund in China. Users can engage in social platform (WeChat) to ask for healthcare aid and receive financial assistance from millions of users. Besides that, the company increases the trust using technology to improve transparency and eliminate false caring demands. Waterdrop offers low cost and cost-effective insurance with assistance of large partners that includes Ping An and Zhong An insurance companies and became the one of the main distribution channel for several Chinese insurance companies.

**Market**
Waterdrop positions to be a health care provider to assist families in need and distribution channel for Chinese insurers. The company counts with leading Chinese enterprises assistance and funding to continue to protect major not covered diseases and create a positive impact in the social insurance ecosystem.

**Milestones**
- **2016**
  - Founded, equity raised 220 million USD.
- **2017**
  - 1 million users, 200 thousand mutual aid campaigns.
- **2018**
  - 20 million users, 2.5 million mutual aid campaigns.
- **2019**
  - 80 million users, 10 thousand mutual aid campaigns.

**RELATED STARTUPS:**
- **Naked / Zhong An**
- **Waterdrop Mutual Aid**

**Highlights**
- Waterdrop positions to be a health care provider to assist families in need and distribution channel for Chinese insurers. The company counts with leading Chinese enterprises assistance and funding to continue to protect major not covered diseases and create a positive impact in the social insurance ecosystem.
Bright Health operates in the USA offering both Individual/Family plans and Medicare. The company is consumer focused driven by technology to enhance the experience, simplifying and digitalizing the health insurance process. By using its healthcare network - with doctors, clinics and hospitals – and analytics, Bright Health provides efficient prices and products to its customers.

**Business model**

Bright Health has its own network of healthcare providers that is available to its customers. In the website, customers can access Bright healthcare partners network that is one of the company focuses and selling points to end customers. The company provides products and services for insurance providers, brokers and navigators that are able to partner with Bright Health and connect with its large customer base. Furthermore, end customers can quote, purchase and receive assistance in Medicare, individual and family plans in the Bright Health online platform.

**Market**

Bright Health’s value proposition is addressed to all Americans in need for health insurance, healthcare providers and insurance brokers. The company is present in 12 states in the USA, being highly exposed to American Regulations as large Health insurtechs such as Oscar and Clover.

**Milestones**

- **2015**
  - Founded in the same year as Lemonade, Wefox and Hippo Insurance.
- **2017**
  - Bright Health acquires Spyder trap a design company for mobile apps and websites.
- **2018**
  - Bright Health announces expansion to ten new markets including New York.
  - Bright Health Series D round – one of the largest in the year.

**Related Startups:** Clover / Oscar
Due to market evolution and competitiveness, companies have a major exposure to new risks that require making more decisions that are affected by regulatory changes and make companies willing to pay more for coverage and security adapted to these needs.

Companies, in this context, also need to make partnerships or agreements with other companies with which they had not yet thought about relating. Precisely at a time when consumers are more open to receive services or buy products from companies belonging to different sectors or even competitors with each other.

Traditional models are being reinvented. For example, the taxi sector has changed and requires companies (Cabify or Uber...) to protect their drivers in a different way than taxis protect their workers. In this case, drivers are only protected when they are hired for a service, while the traditional taxi driver is protected even outside their working hours or while they have no customers.

This change affects large and small companies, which are constantly evolving to offer value in an increasingly changing and competitive world, which demands business decisions and, therefore, leads them to take on new risks.

On the other hand, in this constant struggle to gain a foothold in the market is the digital relationship with customers. Not only in terms of online selling of products, but in the way in which data is collected and exploited, where security breaches can occur and where companies face legal and regulatory problems that can impact their activity and business continuity.

Companies, depending on their size and sector, have different needs in terms of protection, so many are looking for a one-site that helps them centralize their coverage options in a simple and personalized way. There is an opportunity for insurers to offer services adapted to this new reality, understanding this ecosystem more focused on commercial activity and B2B transactions.
How TechGiants are reshaping the Business Shield ecosystem

In the specific case of the Business Shield ecosystem, TechGiants are more focused on the direct relationship with consumers, knowing their needs and connecting directly with them, not entering into the traditional direct B2B relationship of commercial insurance.

Despite this, Asian giants are investing in developing B2B e-commerce platforms, since in this continent the level of digitalization of small and medium-sized enterprises is lower and therefore they need tools to be able to carry out their operations in countries where infrastructures are not as solid as in Europe or Asia.

52% of the investment in startups of this ecosystem (a total of 48 companies) in the last year was concentrated by four companies: Shift, Next Insurance, Bold Penguin and Summit Risk Advisors. The latter was founded in 2019 as well as Cowbell Cyber Inc, Incito and Wetterheld.

In the Business Shield ecosystem we can observe that more than a half of the startups are focused in the cloud technology. Other technologies that are also helping in the disruptive offering of startups are AI, Blockchain and Big Data.
### Shift

**Country:** France  
**Headquarters:** Paris  
**Employees:** 51-100  
**Founders:** David Durkeman, Eric Sibony & Jeremy Jawish

Shift develops technology driven products focused on the insurance industry. The company helps insurance providers through AI native solutions to improve the customer experience and prevent fraud. Shift is a SaaS company empowering leading insurers around the world with two main products: FORCE fraud detection and LUKE automation of claims.

#### Business model
Shift attacks two important pain points of the insurance industry for both end users and insurers. Insurers can automate the claims and fraud detection with Shift technological products, that increase the volume of claims settlements and identify with Artificial Intelligence (based on historical and third parties data that collect from social media to criminal records) potential fraud attempts. The company claims to increase Insurers efficiency to solve claims and improve their clients end user experience through an intuitive digital claim process. Shift data science team is oriented to design or develop products that increase Insurers ROI adding even more value to this Insurance clients.

#### Market
The Automation of the insurance market is evident with several technology driven companies and digital products. In this way, traditional Insurers are being disrupted and are searching for new ways to deliver value to their customers. Shift market includes global insurance brands and insurers, leveraging the scalability of its Software as a service business model. The company offers services globally and have offices in Paris, Boston, Tokyo and Singapore.

### Next Insurance

**Country:** USA  
**Headquarters:** Palo Alto  
**Employees:** 101-250  
**Founders:** Alon Huri, Guy Goldstein & Nissim Tapiro

Next Insurance is an online insurance company for small business and entrepreneurs. Next’s products are personalized to specific needs of each customer, increasing the efficiency of coverages. Customers are able to quote, buy policy or file a claim in minutes within Next’s online platform with support of Artificial Intelligence to facilitate the process and offer the best coverage to customer’s businesses.

#### Business model
Next Insurance charges monthly payments with no extra costs for all coverages, that include live insurance certificate and customer support. The company lowers the costs with automation of several insurance process such as quotation and purchase powered by Artificial Intelligence that allows tailored and instant coverage match customers. Next also provides transparency and simple policies to increase the efficiency of its products and the customer experience, addressing the main pain points of insurance policies. Along with solid partners such as Munich RE and American express Ventures, Next Insurance is constantly improving its operations, products and services.

#### Market
Present in most American States, Next Insurance is providing services to help small businesses diminish their risks. The company allows customers to acquire personalized insurance with affordable prices and a digital process that supports consistent business growth and investments. Next Insurance is expanding its products to attend more small business needs with the coverage of workers’ compensation.

### RELATED STARTUPS:
- **Gradient AI**
- **Coverwallet**

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**Milestones**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>Shift Technologies Founding year and seed Round.</td>
</tr>
<tr>
<td>2017</td>
<td>Shift is part of CBS Insight AI 100 List.</td>
</tr>
<tr>
<td>2018</td>
<td>Shift selected to build healthcare and insurance industry – HICFG, Counter fraud Group-courter fraud data Base.</td>
</tr>
<tr>
<td>2019</td>
<td>Latest round of investment. USD 60M on Series C.</td>
</tr>
</tbody>
</table>

**Total funding amount**

- USD 1.8M in 2013 (Pre-seed)
- USD 112K in 2014 (Seed)
- USD 60M in 2019 (Series C)
- USD 250M in 2019 (Series C)
- USD 60M in 2019 (Series C)
- USD 13M in 2016 (Series C)
- USD 381M

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**Milestones**

<table>
<thead>
<tr>
<th>Year</th>
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</thead>
<tbody>
<tr>
<td>2016</td>
<td>Next Insurance is founded by Israeli-American Team.</td>
</tr>
<tr>
<td>2017</td>
<td>Series A round led by Munich RE Ventures.</td>
</tr>
<tr>
<td>2018</td>
<td>Launch Next Insurance certificate.</td>
</tr>
<tr>
<td>2018</td>
<td>Former Yelp and Fitbit executives join Next Insurance as CPO and CMO, respectively.</td>
</tr>
</tbody>
</table>
Bold Penguin connects agents, insurers and small businesses in a digital platform. Agents are Bold Penguin’s main clients, they are able to find commercial coverage for their customers through Bold Penguin’s software that matches business to suitable coverage from insurance providers. The software reduces friction to find, quote and buy suitable coverage with technology solutions that can be integrated via API with any customer’s digital platform.

**Business model**

Bold Penguin is a SaaS company that uses open API and technology to facilitate and increase flexibility of business coverage process. With the company infrastructure, agents can use the matching engineering, that ranks and organizes available coverage, to offer quick and more solution options to their business clients. Furthermore, Bold Penguin Platform allows insurers to market products more efficiently and receive and send prospects according to the risk profile of each business and risk appetite of insurers.

**Market**

Bold Penguin operates in the USA and improves the small business insurance mechanism system. The company focuses on agents and brokers mainly, helping other stakeholders in the process by leveraging the reach of its digital platform and partnership network, that includes large insurance companies such as Liberty and Nationwide.

**Milestones**

- **2016**: Bold Penguin is founded in Columbus, Ohio and receives a Pre Seed investment.
- **2017**: Introduction of Emperor, new rules engineering that uses data to recommend a more suitable coverage.
- **2019**: Bold Penguin’s largest invested round of USD 32M.
- **2019**: Bold Penguin invests in Xagent— another agent focus platform.

**Lead Investors**

Guggenheim Partners, Hudson Structured Capital Management, Lightstone Ventures, Lockton, Stone Point Capital

**Total funding amount**

USD 50.5M

**Foundation date**

Year 2016

**Last Round of investment**

USD 32M in 2019 (Series B)

**First Round of investment**

USD 1.5M in 2017 (Seed)
360º business protection for both owners and businesses.

People spend most of their day in messaging applications, this being the main channel where they demand services and information for the decision-making of their purchases is changing the way in which products and services are distributed.

A clear example of this is how the Asian giant Tencent with WeChat is trying to keep users hooked in its ecosystem, offering a multi-purpose and indispensable app where users can be able to chat, book a cab, transfer money, play games or simply order food.

The main focuses of people in their interaction with these platforms have to do with the total transparency of the information (e.g. price, options, coverage, risks), the customization of the offer presented (there is no longer an interest in the concept “one size fits all”) and finally the speed with which the options are presented since the person has no time to lose.

How Insurtechs are reshaping the Distribution ecosystem

63% of the investment in startups of this ecosystem (a total of 15 companies) in the last year was concentrated by three companies: WeFox, Duobaoyu Insurance and Acko. The three countries cover 3 different markets.

In the Asian Market, Duobaoyu Insurance is perceived by investors as a company with great potential as the current penetration rate of online long-term insurance in China is less than 2% meaning there is great potential for growth.

It is important to note that in 2019 no new insurtech distribution companies were founded.
### Wefox

**Country:** Germany  
**Headquarters:** Berlin  
**Employees:** 251-500  
**Founders:** Dario Fazlic, Fabian Wesemann, Jonathan Seoane, Julian Teicke & Teodoro Martino  

Wefox connects insurance companies, brokers and customers all together in a digital platform. In 2018, One was created to manufacture products, based on AI and IoT to identify and protect customers’ relevant risks. Wefox and One form Wefox Group - significant responsible for the European Insurance digitalization.

**Business model**  
Wefox gathers traditional insurance plans in a single platform. The company claims that it has been created to support insurers and not replace them. Hence, by partnering with insurers, providers and brokers, Wefox delivers a totally digitalized experience to the end user collecting several options in the market and displaying them in the platform. Further, partners can manage, consult and run data-driven campaigns to the right customer with personalized products. One, the other arm of Wefox group, is using Artificial Intelligence and IoT devices to develop products to protect likely risks for customers and, ultimately, integrating the products in Wefox platform signaling that the company might indeed compete with traditional insurers.

**Market**  
This typical two-sided business, where Insurance providers are taking advantage of a large customer base entering Wefox platform - that was designed to a fully online experience- and Insurance customers are benefiting from a better set of options, is scaling fast receiving more than USD 250M in funding since its foundation. The spin-off from the data collected in the platform, One, showed that Wefox is designing products based on Big Data models and expecting to offer more Insurance options to its customer base. Wefox group offices are present in Berlin, Barcelona, Madrid, Milano, Viena and Zurich.

**Milestones**

- **2015**  
  - Foundation year.
  - Seed investment of 5.5M from Sales Force Ventures.
- **2018**  
  - Launched One in German Market with House and Private liability coverage.
- **2019**  
  - Series B with participation of Goldsmith Sachs.
  - Investment of USD 110M from OMERS Ventures and customer base of 50K.

### Acko

**Country:** India  
**Headquarters:** Mumbai  
**Employees:** 101-250  
**Founders:** Varun Dua  

Acko insurance products cover two-wheel vehicles and cars in India. Through its online platform, acko provides a hassle free experience where customers can quote, buy, renew and claim coverage for their vehicles. acko is able to cut premiums prices with a totally digital process that uses data to provide direct personalized insurance. The company works with several partners to underwrite and distribute its products.

**Business model**  
acko is creating an incredible portfolio with its partners, allowing users to buy and claim insurance for different types of assets. The last Indian government movement with Motor vehicle act has increased acko’s customer base, that alongside with capital raise pushes acko to grow its market and partnerships.

**Market**  
acko has a powerful partnership network that leverage the distribution of its services and products. For instance, users can access acko insurance from Amazon India and several other platforms. The technology and data analytics allow the company to offer better prices and coverage to end customers, that can make claims via acko app or renew their plans. Moreover, acko’s partnership embraces a vast number of other products including smartphones, travel or ride sharing coverage.

**Milestones**

- **2017**  
  - acko is founded in India.
- **2019**  
  - Two large investment Rounds.
Duobaoyu is an online platform that provides insurance services. In Duobaoyu’s website, users can access valuable information regarding the insurance industry and find answers to common insurance related questions. For instance, travel policies from Ping An Insurance are detailed in the company’s digital encyclopedia and can be shared via large Chinese social media platforms.

Business model
Duobaoyu began operations in 2017 and since then, the company is creating knowledge in the insurance sector for Chinese customers.
Users have information access through different platforms such as WeChat and website. These information engage users and insurers to share information, reviews, Q&A, funding insurance sector rounds and even policies or insurance company ratings.
Duobaoyu also provides internal consulting and brokerage services to solve main customers insurance problems and long-term insurance selection support, generating balance over the industry information and improve the sector as a whole.

Market
Spread of information and knowledge in the insurance sector is essential to improve the industry.
Several insurance companies and new insurtechs recognize asymmetric or lack of information the main challenges of this sector.
Duobaoyu’s platform successfully addresses to this issue, awarding the company USD 30M Series B investment round.

Milestones
2017
Duobaoyu's foundation year.
2019
Two investment rounds totaling more than USD 40M led by YF Capital, Co-founded by Jack Ma.
Technology

Liquid disruptors for ecosystems.

Technology plays a fundamental role within ecosystems, since they live together in a satellite way, being present at all times and helping to improve and break up traditional products and services of the insurance industry.

We envision technology as a liquid disruptor for ecosystems. Specifically in the case of the ecosystem around the insurance industry, they are generating changes in very traditional processes that will never be the same.

Changes are happening everywhere in the insurance industry. From the business models, a new consumer more digital and with a constant need for personalization, the high demand for transparency, until the arrival of new players seeking to inject their technological experience in the sector.

AI, Blockchain, Customer Experience, Cloud, Cybersecurity, Data & Intelligence, Intelligent Automation, IoT, and IT Optimization are the liquid disruptors identify as those that will generate the rapid transformation of the sector.

How Insurtechs are reshaping Liquid Disruptors

58% of the investment in startups of this ecosystem (a total of 60 companies) in the last year was concentrated by three companies: Digit, Unqork and Everledger.

The three companies based in diverse markets are disrupting general insurance in different ways. In the case of Digit who owns a technology to auto-detect delayed flights and send policyholders a text message to initiate their claim process, meanwhile Unqork’s pioneer cloud technology which is used by relevant companies like Liberty Mutual, Goldman Sachs and John Hancock, and finally Everledger who tracks and protects items of value by using Blockchain technology for provenance and fighting insurance fraud.

The most relevant technologies present in insurtech companies from the report’s sample are Cloud and Mobile Applications, AI, Big Data and Blockchain.

Keep an eye on

More detail on this subject? Keep reading the following pages
Unqork is a SaaS company that allows clients to build robust digital applications without coding. This tech company is helping large businesses to design and deliver products faster and more efficiently, providing a better experience to clients' end users. Insurers are benefiting from Unqork services, developing innovative products that can adapt to customer's demands or changes in the industry regulation, launching new applications faster than conventional product development.

**Business model**
Unqork’s technology improves efficiency to create internal or external products. Insurers can create internal tailored products to integrate different information and digitalize manual processes. Furthermore, they are allowed to build front end applications to customers in order to collect new information, create new digitalized products, facilitate digital documents generation or manage customers digital footprint.

Increasing demand for process automation and personalized products demand from insurance companies, make Unqork a valuable solution for this industry.

**Market**
Unqork’s technology helps clients in distinct industries such as banking, insurance and education to enhance from internal processes to the end user experience.

In the insurance industry, for instance, companies are exposed, among other risks, to divergence of processes and regulatory rules. That, in addition to its customer’s increasing needs for efficient and tailored products, makes agility essential to provide better services and products to be able to compete fairly in this sector.

Digit is an insurance company that provides cross coverage including vehicles, health and mobile insurance.

**Business model**
Digit is able to lower operational costs by automating several steps of insurance process. The coverage premium are paid online and most of Digit’s network is made with cashless payments, that creates traceable transactions and improves the amount of disposable customers’ data and better cash management. Likewise, the data collected by Digit is used to nourish the company’s mission to deliver a simple digital experience, model better pricing and allow fast claim process.

**Market**
Digit’s products address to Indians main pain points and simplify all the insurance process with automation and policy transparency, that suits the company most memorable statement that a 15 years old person can understand. The company is operating in India where an offline and online approach has been practiced to scale with the help of partners and agents.
Everledger is a technology company that provides different solution across multiple industries. In general, Everledger's solutions increases transparency to its clients processes, transactions and assets information through Artificial intelligence, Blockchain and IoT. These solutions are able to deal with a large amount of data more efficiently, securing and tracking all transactions that can decrease insurance risks and improve overall efficiency.

**Business model**

Everledger is a SaaS company that can provide insurance company better solutions to: 1) See records of each contract or asset, 2) View and query any asset, 3) Link unique identifiers to each transaction and records and 4) Register and track new ownership of contracts or assets. Along with these solutions, Everledger technology enables Insurers to recognize duplicate or fraudulent transactions and collect information in a transparent network to model risk and premium prices more efficiently.

**Market**

By automating several steps in the insurance process, Everledger's technology is delivering a security and transparent way that insurance and its stakeholders can benefit from. Reduction in transactions, administrative and fraud costs, the offered value proposition is according to the insurance industry trend, in which insurance companies try to create more transparency to its customers, automatize claims and lower process friction.

**RELATED STARTUPS:**

B3i
03.1 TechGiants & ecosystems.
Disruption on ecosystems occurs when big players bet to collaborate with the most innovative startups and with the latest technologies. Such is the case of TechGiants (on the US side: Alphabet, Amazon, Apple, Facebook and in Asia: Alibaba, Baidu, Tencent and Rakuten), their core business usually does not have to do with the sectors of the startups where they invest in, otherwise their goal is to use their most competitive advantages in order to shape the market according to them.

Ecosystems will always be in a constant alteration, and we should not be surprised to see how companies, that until now were not taken into account, appear on the scene breaking schemes in the most conservative industries with innovative proposals powered by emerging technologies.

The TechGiants are possibly one of the most relevant examples of ecosystems today. Although they started as search engines, email platforms or social networks, they have been able to perfectly understand the new scenario and are incorporating services related to Insurance or Health to their portfolio.

TechGiants and emerging markets

Although American companies (GAFA) keep leading the ecosystems in their traditional markets and they are also expanding their operations to other geographies, Asian companies (BATR) have the greatest growth potential in the mentioned ecosystems.

A good example of a big tech contributing to ecosystem building is the Chinese Baidu. As an emerging player in the smart mobility ecosystem with the Apollo project, an open source software platform designed to foster collaboration throughout the automotive industry to accelerate the development of autonomous cars. Baidu has motivated industry leaders and also non-industry leaders throughout the automotive ecosystem to join in this odyssey, with more than 100 partners, working with major OEMs, car suppliers and chip manufacturers.

Alibaba and Tencent, already in 2013, started a path that is already paying off today. They created with Ping An the digital giant Zhong An, who leads the sale of online insurance policies in China.

“The key is to know which actors will dominate these ecosystems in the future and how insurers will participate in them”

In addition, Alibaba, through Ant Financial, launched in 2018 (within AliPay) a health coverage product for certain diseases (Xiang Hu Bao) with which it expects to have 300 million subscribers by 2021. As in the case of Alibaba, Tencent also takes advantage of the linking of its users, in this case through WeChat, to offer insurance products on its WeSure platform, in which it has already secured more than 25 million customers in two years.

Baidu, meanwhile, has recently launched a Blockchain-based solution (Baidu XuperChain) that will be used to store medical records of patients (diagnoses, treatments, prescriptions or health insurance data). This initiative will begin focusing on the sharing of data between health centers and pharmacies to improve and simplify the customer experience when buying their medicines in nearby pharmacies.
Alphabet

Alphabet is understanding the ecosystems in a way still unknown to many organizations: by collaborating with other companies, participating or leading projects until they are in a mature phase and evolving traditional business models. All this with the unmistakable seal that characterizes other services of this company: using, acquiring and exploiting the data in a much more efficient way than other organizations; and always backed by an excellent customer experience. Developments, partnerships, investments or acquisitions made by Alphabet, CapitalG or GV

Alphabet is clearly betting on the mobility ecosystem. Participation in companies or related projects is very remarkable, with clear examples of success, but also with failed projects: such as Compare Auto Insurance. Its strategy is both B2B and B2C (for example Convoy) and also focuses on initiatives such as Sidewalk Labs, that wants to reimagine cities to improve people’s quality of life.

HOME SAFE HOME

The company has taken important steps in terms of smart devices, domotic and connectivity with an approach based on artificial intelligence and security. It is also offering home services with Care.com (care for the elderly, children, pets, household arrangements). Regarding the sale or rental of properties, Google has also invested in companies such as Homelight or Airbnb.

SMART MOBILITY

Alphabet is clearly betting on the mobility ecosystem. Participation in companies or related projects is very remarkable, with clear examples of success, but also with failed projects: such as Compare Auto Insurance.

Its strategy is both B2B and B2C (for example Convoy) and also focuses on initiatives such as Sidewalk Labs, that wants to reimagine cities to improve people’s quality of life.

HEALTHY LIVING

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 insurtech worldwide). Alphabet now leads the investment in Oscar’s last round (474M), 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.

72.7% of the respondents see Alphabet’s impact on Distribution & Relationship more than other area of the value chain.

On the other hand, the areas of Policy Administration & Renewals and Claims are the least seen as having an impact on the value chain.

ALPHABET: In which of the following areas of the value chain do you think there will be a greater impact?
Amazon is clearly betting on ecosystems related to the transport of products and the mobility of people, connected homes and healthy living. It is important to highlight that India is the second territory with more startups invested by Amazon (far behind the USA) and that, of the 6 unicorns in which it has invested, two come from this Asian country.

**Developments, partnerships, investments or acquisitions**

Amazon has a strong connection with this ecosystem. It is exploring a vast range of solutions provided from different startups. It is investing in companies related to its core business (logistics and distribution) and it is focusing on the possibilities of autonomous vehicles at a time when online commerce grows steadily and where home deliveries of all kinds of goods have become a new reality. It is also innovating with an app to obtain a driver's license, Dribo, and has even invested in an insurance company in India focused on auto insurance. Amazon has also invested in Acko, that offers personalized underwriting, micro-insurance policies, and an automated micro claims process.

**SMART MOBILITY**

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**HOME SAFE HOME**

One of the key ecosystems for Amazon is the one related with the place where people and their family live. It is focused on a connected home in which internet connectivity, online security management and intelligent device control are easily operated by the user. Amazon is also betting on Entertainment and Education, two areas with great growth potential and very connected to the home environment. It is also investing in a platform that allows people to search and book service providers for their homes.

**HEALTHY LIVING**

This is probably one of the most promising ecosystems for Amazon, although its investment is not as high as that of other TechGiants, it is taking its company model to an industry such as health. Amazon Care is the best example (still in the pilot phase), that it provides a first-rate digital experience, innovates by taking doctors to the workplace or intends to become the leader in the distribution of medicines. Amazon is also backing Grail, which relies on the use of deep sequencing technology to detect the first signs of blood cancer, while this disease is in a phase where it is still treatable.

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86.3% of the respondents identify Amazon on the area of Distribution & Relationship as the one that will have the greatest impact in the value chain. Meanwhile, 11.3% of the CEOs identify Policy Administration and Renewals as the area that will have the least impact on the value chain.

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

- **Product Development** 21 (47.7%)
- **Underwriting & Risk Management** 8 (18.1)
- **Claim** 6 (13.6%)
- **Collection & Disbursement** 9 (20.4%)
- **Policy Admin & Renewals** 5 (11.3%)
- **Distribution & Relationship Model** 38 (86.3%)
facebook

Facebook’s presence on new ecosystems out of its core business is happening in an organic pace compared to the rest of the TechGiants.

It seems like the big tech is building it’s very own ecosystem by surrounding itself from the best startups and technologies that strengthen the social network more and more.

Developments, partnerships, investments or acquisitions

SMART MOBILITY

The TechGiant is not currently working on the hardware part related to Smart mobility products, yet they is more interested in the “connected consumer” who is demanding customized experiences. Such is the case of the Oculus Rift + Touch which has potential in the automotive industry by connecting a Facebook account and get into a voice and avatar body language experience.

HOME SAFE HOME

Facebook enters the Smart home gadgets ecosystem with the Portal Family products, focusing on the use of augmented and virtual reality to change the way people can make calls no matter the location in an immersive way.

HEALTHY LIVING

Facebook begins to show interest in the health ecosystem with its own initiatives such is the case of “Facebook Preventive Health Tool”, which helps users on checkup-reminders and suggesting them nearby sites for flu shots, cancer screenings, and blood-pressure tests; also the feature will suggest free clinics for the uninsured people.

The company is also investing in interesting companies such as Hello Doctor, focused on a mobile platform that allows patients to access records from multiple healthcare providers in one patient-facing app.

TechGiants’ impact.

70,4% of the respondents identify Facebook the area of Distribution & Relationship as the one that will have the greatest impact on the value chain.

Meanwhile 6,8% of the CEOs identify Policy Administration and Renewals as the area that will have the least impact on the value chain for the social network.

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

Survey answered by 44 CEOs and executives of insurance companies worldwide
Alibaba, outside its main business, focuses on two major problems for China: the mobility of millions of people in that country and the pressing need to provide health solutions to such a large population that progressively increases its purchasing power.

Developments, partnerships, investments or acquisitions

Alibaba works on different lines related to mobility: daily commuting of people, delivery of goods and the improvement of the autonomous car by incorporating all kinds of disruptive technologies, for which it collaborates with car manufacturers, not only in Asia, but also with large European groups.

With Ali Health, Alibaba covers a large part of the patients’ relationship with the medical and pharmaceutical sector. From the request for an appointment with a doctor, online consultations, prescription of medications and delivery thereof, it also allows to know at all times the traceability of medications, which is a value in a market where counterfeits occur.

SMART MOBILITY

The company works on different lines related to mobility: daily commuting of people, delivery of goods and the improvement of the autonomous car by incorporating all kinds of disruptive technologies, for which it collaborates with car manufacturers, not only in Asia, but also with large European groups.

HOME SAFE HOME

In the home ecosystem, Alibaba is positioned in services such as the sale of household appliances, maintenance and repairs of the home, cleaning, childcare at home, transportation of pets, or sites dedicated to lifestyle that teach cooking to the younger public.

HEALTHY LIVING

Survey answered by 44 CEOs and executives of insurance companies worldwide.

SMART MOBILITY

HOME SAFE HOME

HEALTHY LIVING

TechGiants’ impact.

79.5% of the respondents identify the Asian Giant Alibaba the area of Distribution & Relationship as the one that will have the greatest impact in the value chain.

Meanwhile, 6.8% of the CEOs identify the Claims area as the one that will have the least impact on the value chain.

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

16 (36.3%)
Product Development

35 (79.5%)
Distribution & Relationship Model

9 (20.4%)
Underwriting & Risk Management

6 (11.3%)
Policy Admin & Renewals

9 (20.4%)
Collection & Disbursement

3 (6.8%)
Claims
Apple's investments have traditionally been based on startups related to technologies that help improve its products and devices (artificial intelligence, facial recognition, 3D and graphics, security, maps...) although, for years, it has established itself as one of the great players in the field of physical activity monitoring, which highlights the acquisition of Gliimpse.

Developments, partnerships, investments or acquisitions

SMART MOBILITY
Apple is the leader in fitness and health tracking and it does it mostly by using their own devices. In addition, it offers great security guarantees to its users as far as the protection of their data is concerned.

This data management strategy is oriented to lead a high potential field like that of preventive medicine, which in the future will have the participation of medical companies, but also technology companies.

HOME SAFE HOME
Although Apple launched HomeKit, which works with up to 22 different types of devices at the home (cameras, bells, doors, lights...), there are less than 500 devices that are compatible with it, compared to that more than 10,000 that connect to Google or the more than 80,000 of Amazon. Apple continues to focus its strategy towards entertainment rather than home.

HEALTHY LIVING
In the field of mobility, Apple has acquired over the years several startups related to map visualization to integrate these new features into its Maps app. On the other hand, it has recently invested $1B in the Chinese ride-hailing company Didi Chuxing, which operates in different countries in Asia and Latin America.

TechGiants’ impact.

70.4% of the respondents identify Apple the area of Distribution & Relationship as the one that will have the greatest impact on the value chain.

Meanwhile, 9% of the respondents identify the Claims area as the one that will have the least impact on the value chain.

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

Survey answered by 44 CEOs and executives of insurance companies worldwide
Baidu has a clear investment and strategic partnership philosophy on companies using AI on several ways, since this technology is present in our daily life transforming the way we live and work. The giant has been investing heavily in top notch companies focused on automated personal assistance, autonomous vehicles and healthcare.

Developments, partnerships, investments or acquisitions

**SMART MOBILITY**

Baidu begins to be a leader in the autonomous mobility ecosystem, with Apollo Enterprise, a suite of autonomous that has been connected services for mass-produced cars and already used by 130 partners around the world.

One of its partners is the Chinese electric vehicle startup WM Motors who plans to deploy level 3 autonomous vehicles by 2021.

**HOME SAFE HOME**

Baidu’s moves in the smart home gadget field are important, by making partnerships with big data companies that can allow them expand in other countries. Such is the case of the launching of their AI assistant Aladdin in Japan. Another important partnership is with the AI robotics startup AI Nemo, with whom they developed the home robot Little Fish. The company is also working in other home products powered by DuerOS its conversational AI system.

**HEALTHY LIVING**

Biotech is a priority for Baidu; in its portfolio includes 14 disruptive companies most of them powered up by AI. Such is the case of Coral Genomics, which uses genomic data from patients to determine how they will respond to a drug before they get treated and Root Path which develops a personalized T cell therapy platform.

**TechGiants’ impact.**

68.1% of the respondents identify Baidu the area of Distribution & Relationship as the one that will have the greatest impact on the value chain.

Meanwhile, 9% of the respondents identify the Claims area as the one that will have the least impact on the value chain.

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

Survey answered by 44 CEOs and executives of insurance companies worldwide.
Tencent is in a constant and fast investing pace, though its main focus is to build the Company’s social media and payment platforms to global expansion, the big tech has a strong drive on health, home and Smart mobility.

Developments, partnerships, investments or acquisitions

<table>
<thead>
<tr>
<th>Tencent’s most invested startups of our study 2010-2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterdrop</td>
</tr>
<tr>
<td>PolicyBazaar</td>
</tr>
<tr>
<td>Cover</td>
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<tr>
<td>Circle Medical</td>
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</tbody>
</table>

SMART MOBILITY

Tencent considered as China’s social networking and video game leader has a seat in the autonomous car, including partnerships with six Chinese automakers to develop autonomous vehicles and has received one of the first licenses to test self-driving cars.

HOME SAFE HOME

Tencent seems to build an ecosystem around its leader product: We Chat, such is the case of the Xiaowei a home assistant who has the function of being the best companion of the social network within the connected home.

HEALTHY LIVING

The big tech has transformed the way patients relate in the healthcare ecosystem, by using WeChat patients and medical facilities are connected with online consultations, bill payment through WeChat Pay, and an online insurance with disruptive features including AI-powered recommendations, one-click termination of insurance contracts.

Tencent’s impact.

72.7% of the respondents identify Tencent the area of Distribution & Relationship as the one that will have the greatest impact in the value chain.

Meanwhile, 13.6% of the respondents identify the Claims area as the one that will have the least impact on the value chain.

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

16 (36.3%)
Product Development

32 (72.7%)
Distribution & Relationship Model

10 (22.7%)
Underwriting & Risk Management

7 (15.9%)
Policy Admin & Renewals

11 (25%)
Collection & Disbursement

6 (13.6%)
Claims

Survey answered by 44 CEOs and executives of Insurance companies worldwide.
Rakuten is still mainly oriented to online commerce, being one of the world leaders in this sector, both in Japan and in other continents thanks to its acquisitions. In the area of mobility and health, it is making important acquisitions or participations in recent years, but in the home ecosystem its presence is almost nil, except for its Rakuten TV service.

**Developments, partnerships, investments or acquisitions**

Rakuten has invested in recent years in companies related to transport services such as Lyft, Gojek, Cabify or Careem. It is also approaching the automobile insurance sector with acquisitions in Galaxy.ai, to automate claims management with AI. It has also invested in Glovo, a platform for sending products on demand or the World Travel System travel services company.

**SMART MOBILITY**

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**HEALTHY LIVING**

As far as the Healthy Living ecosystem is concerned, Rakuten has its own Life insurance and general insurance company. It has also invested in companies such as Dacadoo, which offers data on user risk to insurers; Genelife (to make genetic tests); Overture (in the field of embryology) or Asppyrian (to treat cancer).

**TechGiants’ impact.**

70.4% of the respondents identify Rakuten the area of Distribution & Relationship as the one that will have the greatest impact on the value chain.

Meanwhile, 9% of the respondents identify the Claims area as the one that will have the least impact on the value chain.

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

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Development</td>
<td>18 (40.9%)</td>
</tr>
<tr>
<td>Distribution &amp; Relationship Model</td>
<td>31 (70.4%)</td>
</tr>
<tr>
<td>Underwriting &amp; Risk Management</td>
<td>7 (15.9%)</td>
</tr>
<tr>
<td>Policy Admin &amp; Renewals</td>
<td>5 (11.3%)</td>
</tr>
<tr>
<td>Collection &amp; Disbursement</td>
<td>8 (18.1%)</td>
</tr>
<tr>
<td>Claims</td>
<td>4 (9%)</td>
</tr>
</tbody>
</table>

Survey answered by 44 CEOs and executives of insurance companies worldwide.
ASIA, BUT SPECIALLY CHINA, IS BECOMING A TERRITORY WHERE INVESTMENT IN THE HEALTHY LIVING AND SMART MOBILITY ECOSYSTEMS IS GROWING SIGNIFICANTLY.

The technology giants Alibaba and Tencent are the ones who lead the ecosystem related to health and lifestyle in Asia. In the ecosystem related to intelligent mobility, Alibaba repeats and ranks among the first, this time with Baidu.

The number of potential clients of both types of services is growing steadily in Asia, so the opportunity to offer services is very wide. These organizations, which were born as e-commerce companies or search engines, respectively, are betting on becoming service providers, among with those of health, insurance or mobility. And they do this by incorporating these services into their platforms.

These giants also make investments outside their home markets, eventually investing in large companies that operate in European or American markets.

ALPHABET IS DIVERSIFYING ITS INVESTMENT AND OCCUPIES THE TOP POSITIONS OF THE THREE MAIN B2B ECOSYSTEMS.

Through two of its investment funds (CapitalG and GV), it is present in a large number of companies that are transforming the mobility, home and health and life ecosystems. In addition, in many cases it has opted to create companies internally that aim to radically transform the lives of people in these fields.

Alphabet invests in companies so varied that they range from medical research to devices (health or home) through the provision of services (as in the case of mobility or marketplaces of home services).

SMART MOBILITY & HEALTHY LIVING ARE THE ECOSYSTEMS WITH THE MOST IMPORTANT DEALS IN 2019.

The smart mobility ecosystem is attracting more and more investments in an increasingly global way. Participation and companies in the mobility ecosystem is growing both in the United States, as in Europe and Asia. Although in each region it does so from a different perspective: knowledge and exploitation of the data (Cambridge Mobile Telematics), pay-per-mile model (Root or Friday); or online distribution in less mature markets such as the Indian one (Acko).

The same goes for the healthy living ecosystem, where there is a large investment in the United States due to its private health system, but also in China, with the emergence of a platform that connects insurers with potential customers and allows people to start crowdfunding campaigns to help patients in need of financial support.
04
Fragmentation of the value chain.
Key Research Insights.

Transformation of the Value Chain

The transformation of the insurance value chain leveraged by new technologies helps new incumbents to generate new products, reduce distribution costs, increase customer retention and improve prevention for reducing claims. Just in 2019 more than $5B were injected in insurtech companies with new business models related to this transformation.

As we have seen along this study, the relationship between insurers and clients is changing, as the type of risks and issues faced by this industry. Due to changes in VUCA (volatility, uncertainty, complexity and ambiguity) framework and constant shift in customer’s preferences, insurers have the challenge to find new ways to collect customer data and reshape their products and services with portfolio diversification, underwritten and pricing optimization based on customer’s relevant data.

The new exponential technologies enable Insurance Companies to attend all of these challenges, but it implies to acquire new capabilities, or integrate these capabilities from others, along with its traditional value chain.

These new capabilities are allowing Insurance Companies to move from generic and reactive to personalized and proactive organizations.
2019 Key findings related to Product design.

- DATA DISRUPTING AUTO
  Telecom companies are mostly buying Data from Auto. The highly saturated Smartphone market forces these companies to expand through other devices such as connected car.
  Insurance companies are investing in insurtech companies based on pay-per-mile or usage plans. The world is changing, car ownership is contracting in response of new mobility options. New business models, car sharing and fleet management edge technologies (Uber, Lyft...) are enabling alternative fields for the Auto Insurance products.

- RISK ACCURACY
  Insurtech companies based on IoT, which include water leak, fire, temperature and humidity sensors, allow Insurance companies to introduce new products and coverages that will reduce the impact of claims in their future operational costs.
  Wearables and Genomics help customers to adopt a healthy life and allow health care companies to implement personalized medicine to better prevent or treat patients that will probably reduce the impact in the future illness related costs.
  These new technologies support predictive models, allowing Insurance companies to create cross selling activities around the ecosystems (new mobility models, healthy lifestyle...).

- EMERGING COVERAGE
  New business models like Deliveroo and Glovo widen Insurtech companies opportunities to create new products and coverages for these particular markets.
  The rise of the IoT and the adoption of 5G technology in 2020 will also be an important opportunity for Cybersecurity, specially for small and medium businesses.

- Shift
  Shift Technology raised $100M from Goldman Sachs & Lithia Motors. CoverHound, cybersecurity policy for SME raised $6M from Hiscox, Aflac, Chubb. Coalition cybersecurity insurance that covers expenses incurred from liabilities related to ransomware attacks raised $40M seried B led by Ribbit Capital and Greenoaks.

- unqork
  Helping businesses to design and deliver products faster and more efficiently, providing a better experience to new customers demands raised $110M series B led by CapitalG & Alphabet.

- Zego insurance for emerging mobility services, such as ride hailing and transport sharing raised $42M series B led by Target Global & DST Global.

- CoverHound
  The company that develops a more accurate profile based on IoT resulting in qualified customers receiving a comprehensive, tailored and accurate quote, raised $100M Series E led by Bond.
  Allows you to receive instant alerts and makes it easy to check on your home from anywhere is going to be used by Topdanmark home insurance because of its recent partnership with Homeserve.
  The company providing genetic testing and interpretation to individual consumers raised $300M investment from Pharma GlaxoSmithKline. Alphabet is main investor through Verily.

- ByMiles
  The pay as you go car insurance, raised $15M Series A led by RTP Global. ByMiles pay-per-mile solution raised another $8M led by Octopus. Both operate in the UK market.

- Ryd
  Raised $500M from Softbank helping the insurance industry to provide more accurate data about how people operate their vehicles.

- Deliveroo
  The first insurance company to introduce pay per mile in Germany, raised $127M led by Insurance Company Swiss Baloise Insurance Group.

- RTP Global
  The pay as you go car insurance, raised $15M Series A led by RTP Global. ByMiles pay-per-mile solution raised another $8M led by Octopus. Both operate in the UK market.
23andMe is a genome research company that provides actionable genetic insights to its customers. They are able to collect their own saliva with 23andMe products to map accurate information regarding their Health predisposition, ancestry composition, physical features and other genome related data. These products can be purchased online and the genome information is provided via the company’s app.

**Business model**

23andMe sells affordable and interactive product to customers analyzes their genome features. All data is collected and stored to be used on research or product development. Customers can also engage in social DNA relative finder, participate on scientific studies or explore their traits.

On the one hand, genome data may work for customer’s interest or against it, for instance, insurance companies would be able to quickly identify high risk customers and price premiums accordingly.

On the other hand, Genome knowledge can fuel human health research preventing diseases, improve wellbeing and create innovative products that are valuable to end users and ultimately to the society.

**Milestones**

- **2006**: First product launched at USD 999.
- **2007**: The FDA (Food and Drug Administration) raises concern about 23andMe services and order to stop sales.
- **2008**: 23andMe is founded to create a positive impact in healthcare.
- **2015**: 23andMe successfully identified genomes associated with different diseases.
- **2017**: Market expansion to 4 European countries.
- **2019**: 23andMe market counts with several other brands.

Qover is an insurtech that offers coverage to digital business users. Through a plug and play open API technology, the company gives the option to its clients to offer insurance to the end consumer or user, using a personalized interface to each client. Modularized solutions and simple integration helps Qover to scale and partner with more digital-focused businesses that is interested in offering insurance solutions inside their online platforms.

**Business model**

Qover is an insurtech that offers coverage to digital business users. Through a plug and play open API technology, the company gives the option to its clients to offer insurance to the end consumer or user, using a personalized interface to each client. Modularized solutions and simple integration helps Qover to scale and partner with more digital-focused businesses that is interested in offering insurance solutions inside their online platforms.

**Milestones**

- **2016**: Founded to be the first relevant IaaS provider in Europe.
- **2019**: Reaches 50K customers and counts with powerful partners such as Deliverco and Cowboy.
- **2019**: Last round of investments injecting USD 9M led by Alven.
2019 Key findings related to Marketing & Distribution.

**Marketing & Distribution**
- Behaviour analysis & Automation
- Data Acquisition
- Digital Nudging
- Machine Learning
- Hyper Personalization
- Digital Brokers & Marketplaces

**Embassador**
- A wide-range of insurance coverage to more than 1,000 unique types of small business becoming the latest unicorn in the nation. Munich Re invested $250M.

**Commercial Strikes Again**
- Insurtech companies are radically improving the way Insurance companies build and distribute products for Small and Medium Enterprises through data analysis, process automation and digitalization.
- Insurance Companies are investing large amounts of money in these insurtech companies that are growing rapidly.

**Lemonade**
- Raised $300M D Series from Softbank, Allianz and GV with the goal of expanding its business to Europe invested $300M in Lemonade. AXA Germany made a partnership with Lemonade to start its expansion in Germany.

**Wefox Group**
- Raised $110M B Series led by Goldman Sachs. Wefox works with insurance brokers, agencies, and individuals through a digital platform that allows for simple and personalized consultations for all types of Insurance. Wefox made a partnership with MunichRe because of its One Insurance product.

**RSG**
- Insurance organization, which includes a wholesale brokerage firm (RT Specialty) and an underwriting management organization, raised $150M from Onex.

**MunichRe**
- An online life insurance and general insurance comparison portal raised $150M G Series from Tencent for a 10% of the Company.

**First authorized digital agency in Hong Kong offering plans to a range of health-focused insurance products raised $30M from Tencent and Sun Life.**

**Next Generation Brokers Lands in Europe**
- With data leading the transformation of the value chain, Artificial Intelligence is transforming the distribution in ways never seen before. AI chatbots to answer customer questions, machine learning for eliminating paperwork and optimize the process for customers, behavioural economics for Insurance personalization have been proved to be useful not only for the US markets, but also for the European.

**2019 Key findings related to Marketing & Distribution.**

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PolicyBazaar is an online insurer aggregator platform, that compares several policies to each customer’s demand. In the company website, users can access different policies from distinct insurers and compare coverage plans, that embrace life, health, car and travel insurance. Thanks to a unbiased algorithm, users are able to search millions of insurance plans and choose the most suitable one through a total digital and hassle-free process.

**Business model**
PolicyBazaar provides its services through a mobile app or website, in which customers can compare numerous insurance policies. Additionally, the company works with hundreds of insurer partners that are able to distribute its products through PolicyBazaar’s platform to suitable customers. These customers can benefit from PolicyBazaar efficiency to find better policies at lower prices, due to automation and a data-driven technology that uses different variables to identify suitable coverage options and shrink operational costs.

**Market**
Operating in India, PolicyBazaar enlarges the insurers customer base and improves end users experience. Using technology and automation, the company counts with important partners in the insurance sector, enhances the access and transparency of Indian customers, improving the overall efficiency of Insurance in the country.

**Year 2008**
- **Foundation date:** Year 2008
- **Last Round of investment:** USD 150M in 2019 (Series G)
- **Tencent Holdings**
- **Lead Investor:** Tencent Holdings
- **Total funding amount:** USD 486.6M

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<th>Employees</th>
<th>Founders</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;10000</td>
<td>Alok Bansal &amp; Yashish Dahiya</td>
</tr>
</tbody>
</table>

**RELATED STARTUPS:**
- **Digit partner**

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Bowtie is the first all-digital insurance to receive legal authorization to operate in Hong Kong. The company, founded in 2018, is challenging the domestic sector, claiming that the traditional industry is focused on savings and investments, instead of protection and transparency. The application, purchase and claim is done digitally via intelligent automation and an encrypted system to protect your personal data with commission-free and pay-as-you-go basis monthly charges.

**Business model**
This recent insurtech is consolidating partnerships to expand its customer base. Bowtie is already offering its services through the VHS (Voluntary Health insurance program) - Hong Kong Food and Health Bureau program to improve the healthcare in the region. Competing with solid insurance players in the VHIS program such as the insurance giants AXA and CHUBB, the startup bets on the simplified and friendly user experience within an online end to end customer journey. Moreover, Bowtie’s cash program is unique to its clients, showing the company’s interest to create cashless and digital currency payments.

**Market**
Hong Kong has a traditional insurance industry, but Insurtechs are gaining traction in recent years with 8 startups in seed stage receiving more than USD 60M in funding and hosting one of the largest Asia Insurtech event: InsureTech Insights. AIA Group, Sun life Financial and Greenlight Insurance are investing in early stage insurtech companies including Bowtie. The startup counts with Former Hong Kong’s Financial Secretary as a senior adviser to grow internally and expand to other southeast Asia countries.

**Year 2018**
- **Foundation date:** Year 2018
- **First Round of investment:** USD 30M (Series A)
- **Sun Life Financial**
- **Lead Investor:** Sun Life Financial (Fintech)
- **Insurer investor:** SoftBank
- **Total funding amount:** USD 30M

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>11-50</td>
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**RELATED STARTUPS:**
- **OSCAR**

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**PolicyBazaar**
Country: India  
Headquarters: Gurgaron  
Employees: >10000  
Founders: Alok Bansal & Yashish Dahiya

**Bowtie**
Country: China  
Headquarters: Hong Kong  
Employees: 11-50  
Founders: Fred Ngan & Michael Chan

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**Cross Industry**
- **Platform Ecosystem / Marketplace**
  - **Value Chain**
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  - **Type of client**

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**RELATED STARTUPS:**
- **Digit partner**
2019 Key findings related to Underwriting.

**Root**
Personalized car insurance coverage that gives good drivers the low rates, raised $350M Series E from DST Global.

**Cytora**
Car Insurance marketplace applying data-driven algorithms to offer best rate to its customer, raised $100M series A led by Goldman Sachs.

**Quantemplate**
Applies AI to public and proprietary data, including property construction features, to better predict risk and ensure more transparent pricing raised $30M.

**Root**

**PROACTIVE PRICING**
Improvements on data collection allow the implementation of the behavioural analysis in all types of products in the insurance industry.

Drivers, renters and healthy customer lifestyle pushes the demand for one of the most important trends in insurance value chain: the underwriting process.

Relevant investments started to appear in this value chain from main investors and insurance companies.

**EMERGING MARKETS**
Insurtech companies found a huge opportunity for Micro Insurance in emerging markets. The adoption of new techs and new business models in these markets enables Insurers to sell customized products to low-income and uncovered customers tailored for their specific needs.

Insurance Companies and Tech Giants are leading the main investments related to emerging market products, having the possibility to operate in new geographies with substantial growth rates.

**EMERGING MARKETS**

**Health IQ**
The company that uses an online health quiz and data analysis to determine personalized pricing discounts tied to healthier living, raised $55M D Series. Among VCs is Horowitz firm.

**Clover**
The health insurer that collects and analyses health and behavioural data to lower costs and improved medical outcomes, raised another $500M, from Greenoaks.

**RISK ACCURACY**
The largest venture funding rounds in 2019- and in the whole period- have been raised by two healthcare companies focused on improving Insurance health plans with affordable pricing and enhanced medical services.

In the specific context of Public Healthcare in the US market, Insurtechs are using technology to improve the domestic healthcare processes and model accurate pricing segmentation. This sector has gained traction rapidly with support from VCs firms that are investing large amounts of money behind these models.

**Quantemplate**
Machine learning data platform for market and pricing insights with flexible analytics tools, or export and share clean data, raised $12M B Series led by Allianz X.

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**Invesco Global Outlook 2020**

**Chapter 04**

**Fragmentation of the value chain**

**Car Insurance marketplace applying data-driven algorithms to offer best rate to its customer, raised $100M series A led by Goldman Sachs.**

**Personalized car insurance coverage that gives good drivers the low rates, raised $350M Series E from DST Global.**

**Applies AI to public and proprietary data, including property construction features, to better predict risk and ensure more transparent pricing raised $30M.**
BIMA is an insurtech player leading emerging market insurance and mobile health, using innovative mobile technology to reach people who have never had insurance and health services that include life, accident and health coverage. BIMA deeply understands its special consumer needs, serving insurance to underprivileged people with a sustainable and profitable business. To attend BIMA customer’s special needs, the company developed a proprietary technology that uses a mobile operator network to allow transactions and services towards simple phone devices.

**Business model**
BIMA is a leading insurance for underserved customers and is fueling inclusion through technology, cost – efficiency distribution – direct sale to end customers – and a unique agent approach that assists and educates people regarding insurance and mobile health.

The company counts with mobile operators, Micro finance institutions and banks as partners to scale and improve its services.

This framework allows customers to pay affordable premiums for BIMA's services, which includes health insurance, micro insurance and tele-doctors via mobile phones, while keeping BIMA’s sustainable and profitable business.

**Market**

BIMA offers affordable insurance in developing countries, being present in 13 emerging markets.

BIMA reaches more than 31 million customers, that mostly live under USD 10 a day, making solid partnerships and cost-efficiency products essential to increase the customer base that is currently increasing with exponential rates.

**Milestones**

- **2010**: BIMA is founded by Gustaf Agartson.
- **2016**: Tele-doctor is launched to assist remote regions and customers with urgent needs.
- **2017**: Allianz X leads USD 36M BIMA fund round and a USD 60M secondary market transaction. MILVK partnership to reach millions of people in Bangladesh, a 1% insurance penetration market.
- **2019**: Allianz X leads USD 36M BIMA fund round and a USD 60M secondary market transaction. MILVK partnership to reach millions of people in Bangladesh, a 1% insurance penetration market.

**RELATED STARTUPS:**

- **Next Insurance**

---

Carepay international uses existing mobile phone technology to transform healthcare industry. The company facilitates financial transactions and patient data related to healthcare using a digital platform to connect patients, providers and payers. Besides that, Carepay platform allows donors and providers to analyze patient data, request and receive health care payments.

**Business model**

The company has both the intention to provide healthcare inclusion and bridge financial transactions in this industry. This Dutch company operates in Kenya, Tanzania and Nigeria that sum 4 million users and thousands of healthcare providers.

Due to Carepay transparency and consistency, the company also provides its services to governments.

**Milestones**

- **2015**: Employees: 101-250
- **2019**: Employees: 101-250

**RELATED STARTUPS:**

- **BIMA**
2019 Key findings related to Policy Admin, Collection & Disbursement

**Eveledger**
Technology to create a secure and permanent digital record of an asset’s origin, characteristics and ownership raised $20M A Series led by Rakuten, Tencent and Fidelity.

**Oko**
Design index-insurance products that automatically compensate farmers when they are facing adverse weather raised $0.5M from Swiss Capacity Building Facility and ImpactAssets.

**Veroledger**
Logistics tracking, cargo handling and insurance for trans-border trade business raised $70M from Sequoia.

**Parsyl**
New parametric insurance based on the IoT goods tracking for cargo marine made a partnership with AXA XL.

**Blockchain and IoT found its spots in goods tracking**
Digitalization and ubiquitous data in the supply chain due to IoT technology make possible to track location and conditions of goods, enabling Insurtechs to underwrite more precisely the risk.

Smart Contracts for new parametric Insurance in supply chain or assets origin digital records starts to receive important investments and partnerships specially if they are applied in cargo marine or rural businesses.

**Sure**
Insurtech that enables travelers to purchase on-demand policies up to the time of their flight takeoff raised $23M from W.R. Berkley and IA Capital Group.

**Qcko**
Provides regulated insurance policies like sports equipment, pets, electronics, contracting work, jewelry, flight tickets, and cars and purchase online claims via its instant payments platform in more than 90 currencies, raised $10M Series B from King River.

**Voom**
First on-demand, telematics based for specialized mobility (drones, e-scooters, small planes..) raised $5M series A led by Arbor and Verizon.

**Risk accuracy**
The Gig and Sharing economy keep pushing new add-on services for those uncovered products and services.

New business providing services related to travel delays and cancellations, and shared economy are completing the current surge for on demand products.

Likewise, P2P models seem to be the new way, in Asia, to cover unattended patients that are uncovered because of critical illness or due to disease-stricken.

**Aim**
Aiming to provide more affordable medical alternatives including crowdfunding, mutual, and insurance products raised $75M series B led by Tencent.
Waterdrop is a Chinese platform that connects insurers with potential customers and allows people to start crowdfunding campaigns to help patients in need of financial support in health care expenses. Founded in 2016, the company counts with more than 80 million users and its mutual fund helped almost 10 thousand families.

**Business model**
The company operates with risk pooling efficiency and provides health insurance or mutual aid fund in China. Users can engage in social platform (WeChat) to ask for healthcare aid and receive financial assistance from millions of users. Besides that, the company increases the trust using technology to improve transparency and eliminate false caring demand. Waterdrop offers low cost and cost-effective insurance with assistance of large partners that includes Ping An and Zhong An insurance companies and became the one of the main distribution channel for several Chinese insurance companies.

**Market**
Waterdrop positions to be a health care provider to assist families in need and distribution channel for Chinese insurers. The company counts with leading Chinese enterprises assistance and funding to continue to protect major not covered diseases and create a positive impact in the social insurance ecosystem.

**Milestones**
- **2016**: Waterdrop is founded and launches Waterdrop Mutual Aid.
- **2017**: Waterdrop protection services to support sustainable business model in health protection.
- **2018**: Waterdrop fund surpass 100 million users that contributed to assist more than 300 thousand patients.
- **2019**: The company receives funds on the largest investment round from several major Chinese companies.

**Related Startups:**
Naked / Zhong An

Cover Genius is a global insurance company driven by technology, offering a vast number insurance options due to its unique and ambitious vision statement to protect all customers of the largest online companies worldwide. All Cover Genius products can be added in its clients platforms through Cover Genius’ API and are designed to use Data driven to build personalized insurance for the end user.

**Business model**
The company is present in several countries and follows the trend of insurance personalization. The intrinsic business model potential allows any large ecommerce brands to provide insurance for their customers, consequently Cover Genius has access to a large amount of data improving the design of products, recommendation system and risk management.

**Market**
The company is present in several countries and follows the trend of insurance personalization. The intrinsic business model potential allows any large ecommerce brands to provide insurance for their customers, consequently Cover Genius has access to a large amount of data improving the design of products, recommendation system and risk management.

**Milestones**
- **2014**: Foundation of Cover Genius platform.
- **2016**: The company secures a strong partnership including Booking.com.
- **2017**: Expansion of Cover Genius products portfolio.
- **2018**: Xclaims is launched to the market.

**Related Startups:**
Qover

---

**Country**: China
**Headquarters**: Beijing
**Employees**: 70
**Founders**: Shen Peng

**Country**: Australia
**Headquarters**: Sydney
**Employees**: 101-250
**Founders**: Angus McDonald & Chris Bayley
2019 Key Findings related to Claims Management

**Claims Management**
Proactivity and added-value services

**Data Management**
Digital Servicing
Big data
Robo-advisors
Added-value services

**Claims Management SPEAKS AUTO**

In 2019 most of the investments related to claims management went to the Auto line of business. Big data and Deep learning seem to be two technology solutions that are going to change the auto claims process for the intelligent claims management. Insurtechs based on these technologies are receiving investments mainly from Insurance companies.

**SENSELY**

The virtual nurse chatbot that improves patient engagement, increases voluntary disclosure of information and is able to recommend partners network services and products, raised $15M Series B led by Aflac and Nippon Life.

**Yuandudu**

Is dedicated to analyze a large number of risk fraud scenarios and introduce risk management tools accordingly, so as to help insurance companies accurately identify auto insurance fraud cases raised $3M.

**BlockClaim**

BlockClaim’s AI-driven claims triage & fraud filtering solution has been specifically designed for commercial insurers to streamline claims processes and minimize leakage, raised $1.2M from Techstars.

**Senio**

The platform connects consumers with agents and leverages AI to answer customer queries and for customized solutions through a public WeChat accounts, raised $10M from Sequoia.

**Super**

A subscription service that provides care and repair for home, announced it has completed a $20M Series B. Liberty Mutual and MunichRe participated in this round.

**Fixico**

Is an online platform that offers a new and fully digital way to handle car damage claims for insurance and fleet companies raised $7M from Lyft-backer. In 2018 Fixico made a partnership with AXA Belgium for being its digital claim handling solution.

**Jobin**

Is a digital platform that allows you to find professionals in the home service sector to perform home repairs raised $1M led by industry player Multiasistencia.

**Robo advisors for cost-saving areas**

Out-of-the-box tech models are transforming claims processes through AI and machine learning providing simple, transparent, self-service and fast processes.

Operational activities driven by cost-saving strategies may be a real opportunity to start in the digitalization process of claims management process through robo-advisors.

**Third party integration for an end2end digitalization**

For an end 2 end digital transformation of the claims management Insurers are investing and collaborating with startups related to the road assistance management or repair-shop networks.

This type of digital integration allows Insurance companies keeping the sole ownership on its customers while increasing its competitive differentiation.

**Snapheet**

The mobile application to accelerate estimates of repairs to vehicles that are victims of road accidents, raised $29M E Series round with Liberty Mutual.

**Gradient**

A (SaaS) platform boosts a proprietary dataset comprised of tens of millions of claims, helping customers’ claims and underwriting teams make better decisions more efficiently, raised $6M A Series led by GV. In January, Gradient AI joined DuckCreek offering measurable results in underwriting and claim operations.

**Out-of-the-box tech models are transforming claims processes through AI and machine learning providing simple, transparent, self-service and fast processes.**
Snapsheet is a tech driven company that offers solutions to insurance to manage claims, automating the whole claim process. Heavily invested in Artificial Intelligence and machine learning, Snapsheet’s software is flexible to adapt to specific workflows and operational needs, creating a powerful engine to Insurers transform the management and settlements of their client's claims.

**Business model**
Snapsheet is a B2B SaaS company focused on making claims more consistent and efficient. The company offers solutions mainly to auto insurance companies, allowing them to decrease operational costs through automation, image recognition and bionic technology. Clients can enhance their customers experience using Snapsheet’s online platform, in which claims are filled, analyzed and settled automatically. Due to the integrated and consistent technology, the software quickly recognizes and prevents fraud, diminishing business’ risks.

**Market**
Operating in the USA the company counts with international clients. Snapsheet solutions give Insurers the ability to integrate its software. The possibility to integrate Snapsheet’s software in different process and workflows, allows clients to quickly respond to customer data in order to scale and diversify products portfolios.

**Milestones**

<table>
<thead>
<tr>
<th>Year</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Snapsheet is founded in Chicago.</td>
</tr>
<tr>
<td>2014</td>
<td>Series B of USD 6.2M led by 500 Startups.</td>
</tr>
<tr>
<td>2018</td>
<td>Snapsheet partner with AWIA to expand its presence in North America.</td>
</tr>
<tr>
<td>2019</td>
<td>Large round of USD 29M, helping Snapsheet to expand operations.</td>
</tr>
</tbody>
</table>

**Related Startups:**
- Shift Technology
- Duck Creek

---

Sensely is a B2B SaaS technology driven company centered on wellness and healthcare. The company’s software allows clients to improve their end users experience with personal services that includes instant access to chatbot customer service, remote healthcare monitoring and claims. Sensely’s human-like chatbot that improves patient engagement, increases voluntary disclosure of information and is able to recommend partners network and customers risk assessment through Artificial Intelligence.

**Business model**
Sensibly's services can improve the insurance and healthcare customer journey through automation. The value proposition allows its clients to deliver a digitalized and personalized user experience that is necessary in this industry to compete and scale consistently. Moreover, Sensely addresses to a significant pain points of healthcare, that are prevention of illness through trustful and human touch joined with data driven and powerful Artificial Intelligence.

**Market**
Sensibly’s focus is on technological products with Artificial Intelligence with a human touch, that help its clients to engage with customers through natural language processing and human like chatbots. The company’s technology can be integrated in client’s digital platforms to provide customer service, claims and underwritten processes.

**Milestones**

<table>
<thead>
<tr>
<th>Year</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Sensely’s foundation year.</td>
</tr>
<tr>
<td>2015</td>
<td>Sensely receives Series A USD 2.2M to invest in product enhancement and expand to new markets.</td>
</tr>
<tr>
<td>2019</td>
<td>Aflac, American large supplemental insurance company, leads the Venture round of USD 15M.</td>
</tr>
</tbody>
</table>

---

**Snapsheet**
- **Country:** USA
- **Headquarters:** Chicago
- **Employees:** 251-500
- **Founders:** Brad Weissberg & CJ Przybyl

**Sensibly**
- **Country:** USA
- **Headquarters:** San Francisco
- **Employees:** 11-50
- **Founders:** Adam Odessky & Ivana Schnur
Fragmentation of the Insurance Value Chain.

**PRODUCT DESIGN**

<table>
<thead>
<tr>
<th>The insurers Spectrum</th>
<th>Startups</th>
<th>New players</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MARKETING & DISTRIBUTION**

<table>
<thead>
<tr>
<th>The insurers Spectrum</th>
<th>Startups</th>
<th>New players</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**UNDERWRITING**

<table>
<thead>
<tr>
<th>The insurers Spectrum</th>
<th>Startups</th>
<th>New players</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**POLICY ADMIN, COLLECTION & DISBURSEMENT**

<table>
<thead>
<tr>
<th>The insurers Spectrum</th>
<th>Startups</th>
<th>New players</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CLAIMS MANAGEMENT & COLLECTION**

<table>
<thead>
<tr>
<th>The insurers Spectrum</th>
<th>Startups</th>
<th>New players</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Survey results.

Value chain impact

Select those areas of the value chain you think will be impacted.

- **31 (70.4%)**
  - Product development

- **39 (88.6%)**
  - Distribution & Relationship model

- **25 (56.8%)**
  - Underwriting & risk management

- **23 (52.2%)**
  - Policy admin & renewals

- **22 (50%)**
  - Collection & disbursement

- **32 (72.7%)**
  - Claims

Insights:

- **Distribution & Relationship** is the value chain perceived as more impacted by the digital transformation. This is natural also across other industries due to intrinsic digital world capabilities to reach wider audiences with efficiency.

- **Collection Policy** shows the least impact. Since respondents have solid inside knowledge, this could be indication of the strongest areas for traditional insurance or with more dependence on external variables such as regulatory rules.

- Claims are indeed a trend to disruptions. There are relevant players already deeply disrupting this value chain with automation, image recognition and Artificial Intelligence.
Conclusions.

Data Disrupting Auto.

TELECOM COMPANIES are mostly buying Data from Auto. The highly saturated Smartphone market forces these companies to expand through other devices such as connected cars. These new technologies support predictive models, allowing companies to create cross selling activities around the ecosystems (for instance new mobility models). INSURANCE COMPANIES are investing in insurtech companies based on pay-per-mile or usage plans. The world is changing, car ownership is contracting in response to new mobility options. New business models, car sharing and fleet management edge technologies (Uber, Lyft...) are enabling alternative fields for the Auto Insurance products.

Next Generation Brokers Lands in Europe.

Insurtech companies are radically improving the way Insurance companies build and distribute products. With data leading the transformation of the value chain, Artificial Intelligence is transforming the distribution in ways never seen before. AI chatbots to answer customer questions, machine learning for eliminating paperwork and optimizing the process for customers, and behavioural economics for Insurance personalization have been proved to be useful not only for the US markets, but also for the European. In 2019, Insurance companies performed the most important investments, acquisitions and partnerships related to Insurtechs operating in Marketing and Distribution activity.

Proactive Pricing Boosts Health Leadership.

Improvements on data collection allow the implementation of behavioural analysis in all types of products in the Insurance industry. Insurtech companies found a huge opportunity in the Health activity. The largest venture funding rounds in 2019 -and in the whole period- have been raised by two healthcare companies focused on improving Insurance health plans with affordable pricing and enhanced medical services. In the specific context of Public Healthcare in the US market, Insurtechs are using technology to improve the domestic healthcare processes and model accurate pricing segmentation. This sector has gained traction rapidly with support from VCs firms that are investing large amounts of money behind these models.

On Demand & P2P Models for Uncovereds.

The Gig and Sharing economy keeps pushing new add-on services for those uncovered products and services. New businesses providing services related to travel delays and cancellations and shared economy are completing the current surge for on demand products. Smart Contracts for new parametric insurance policies -in supply chain or in assets that origin digital records- start to receive important investments and partnerships, especially if they are applied in cargo marine or rural businesses. Likewise, P2P models seem to be the new way, in Asia, to cover unattended patients that are uncovered because of critical illnesses or due to disease-stricken.
Predicting Successful Startups.
Predicting Successful startups.

The world of startups are a very important part of the world’s economy. An increasing number of big companies such as Amazon, Google or Facebook have more and more weight in the economy worldwide or in other social aspects. In recent years the number of small businesses is growing at an exponential rate, so it is a challenge to know how this new sector works. Having an advanced knowledge about the world of startups is a requirement for those individuals or companies that make strong investments in them. For our work, successful companies have been defined as those that have been acquired by an investor at some moment. This does not mean that there are no other patterns that indicate that a startup has been successful, such as, for example, reaching a very high amount of revenue. For investors, having an estimate of whether or not a startup will be successful is a very competitive advantage that would put them ahead of their competitors.

In this work we propose to carry out a small investigation and experiments for the prediction of successful companies within the insurance field. It has dealt with different sets of data that have been extracted from the website CrunchBase.com. Secondly, the different experiments with the Insurtech dataset are tested to see which companies in our sample can be potentially successful. We are not only looking for a simple prediction, but also to extract all the information that indicates which factors have influenced the decisions of the predictions.

Data selection
The data used for this paper have been collected from webpage CrunchBase.com and extracted on the date 01-12-2019. There are different datasets that have been created and structured by the Insurance sector staff. A total of four datasets are available, with two of them containing information related to successful and unsuccessful startups and the last dataset contains data from the main investors. The first dataset consists of companies from all sectors:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>uuid</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td></td>
</tr>
<tr>
<td>type</td>
<td></td>
</tr>
<tr>
<td>permalink</td>
<td></td>
</tr>
<tr>
<td>cb_url</td>
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</tr>
<tr>
<td>rank</td>
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<tr>
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</tr>
<tr>
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</tr>
<tr>
<td>city</td>
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</tr>
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<tr>
<td>raised_amount_usd</td>
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<tr>
<td>post_moneyvaluation_usd</td>
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<tr>
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<td>post_moneyvaluation_currency_code</td>
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</tr>
<tr>
<td>investor_count</td>
<td></td>
</tr>
<tr>
<td>org_uuid</td>
<td></td>
</tr>
<tr>
<td>org_name</td>
<td></td>
</tr>
<tr>
<td>lead_investor_uuids</td>
<td></td>
</tr>
</tbody>
</table>
The second dataset contains only the startups that are in the BFSI sector (73,000 companies). All the companies in this set are those that will be kept in the first set of data described. Those columns that provide important information about the company are selected, such as the categories or their role. The columns are in the following table:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>uuid</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td></td>
</tr>
<tr>
<td>type</td>
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</tr>
<tr>
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</tr>
<tr>
<td>updated_at</td>
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<td>homepage_url</td>
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<tr>
<td>country_code</td>
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</tr>
<tr>
<td>state_code</td>
<td></td>
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<td>region</td>
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<td>city</td>
<td></td>
</tr>
<tr>
<td>postal_code</td>
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<td>last_funding_on</td>
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<td>phone</td>
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<td>linkedin_url</td>
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<td>twitter_url</td>
<td></td>
</tr>
<tr>
<td>logo_url</td>
<td></td>
</tr>
</tbody>
</table>

For the second set of data, we have information about investors. This table can be related to the lead investors in the first dataset. Columns that provide important investor information such as number of investments, type of investor or country code are selected. The variables in the dataset are listed below:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>uuid</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td></td>
</tr>
<tr>
<td>type</td>
<td></td>
</tr>
<tr>
<td>permalink</td>
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<tr>
<td>cb_url</td>
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<tr>
<td>rank</td>
<td></td>
</tr>
<tr>
<td>created_at</td>
<td></td>
</tr>
<tr>
<td>updated_at</td>
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<td>roles</td>
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<tr>
<td>country_code</td>
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<td>state_code</td>
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<tr>
<td>region</td>
<td></td>
</tr>
<tr>
<td>city</td>
<td></td>
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<tr>
<td>investor_types</td>
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<tr>
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<tr>
<td>total_funding_usd</td>
<td></td>
</tr>
<tr>
<td>total_funding</td>
<td></td>
</tr>
<tr>
<td>total_funding_currency_code</td>
<td></td>
</tr>
<tr>
<td>founded_on</td>
<td></td>
</tr>
<tr>
<td>closed_on</td>
<td></td>
</tr>
<tr>
<td>facebook_url</td>
<td></td>
</tr>
<tr>
<td>linkedin_url</td>
<td></td>
</tr>
<tr>
<td>twitter_url</td>
<td></td>
</tr>
<tr>
<td>logo_url</td>
<td></td>
</tr>
</tbody>
</table>

Finally, we have a last set of data with the companies that have been acquired at some moment (a total of 5,000). Of this set, only the identifier of the acquired company is needed to relate it to the companies in the first set of data. Those companies that have been acquired at some moment will be set as successful.
Data Pre-processing

Data pre-processing is one of the main tasks to be applied when using a machine learning model. A good pre-processing can have a great impact on the results of the models that are implemented. In order to solve the problem, a pre-processing is required for each company:

- Keep the relevant information and remove that which may be noisy.
- Keep existing correlations in the data or minimize them as little as possible.

A methodology consisting of three main steps has been followed for the pre-processing of the data:

1. **Data Clean**
   - Missing Values
   - Outliers

2. **Data Selection**
   - Context of study

3. **Transformation**
   - Create new variables
   - Add data from external source

For the first two steps, the datasets have been cleaned, the samples in which the columns are empty and there is no possibility to replace this value are deleted. Samples with inconsistent values (outliers) are also deleted. Finally, as a context, we only work with insurance companies and with those countries that have the most samples and which have successful companies.

For the last step referring to data transformation, section 2.1.1 explains in detail the steps followed and the results obtained.

Data transformations

Data transformation consists of the creation of new variables that can provide relevant information to the models. Adding new variables from external sources is also a common practice in this step. The objective in this task is to add new variables to the general sample that provide relevant information for each of the organizations. For this task a specific order has been followed:

- Work begins on the investor dataset. The created variables are added to the general organization dataset.
- The data of the acquired companies is then matched up with data of the startups. As before, the created variables are added to the startup dataset.
- New variables from existing data are added in the startup dataset.

A methodology consisting of three main steps has been followed for the pre-processing of the data:

Investors data

It is mainly based on the external dataset referring to investors. Each of the startups of the general sample can have 0 or more lead investors. It consists of the columns described in section 2. Each of the rows relates to the corresponding startup in the general sample. The following tables show how each of the samples is related:

<table>
<thead>
<tr>
<th>Organization Name</th>
<th>Lead Investors ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Startup_1</td>
<td>Investor_1_ID</td>
</tr>
<tr>
<td></td>
<td>Investor_4_ID</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lead Investors ID</th>
<th>Type</th>
<th>Investment Count</th>
<th>Investors types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investor_1_ID</td>
<td>Investor</td>
<td>10</td>
<td>Angel</td>
</tr>
<tr>
<td>Investor_2_ID</td>
<td>Company</td>
<td>1</td>
<td>Venture capital</td>
</tr>
<tr>
<td>Investor_3_ID</td>
<td>Investor</td>
<td>150</td>
<td>Investment_partner, angel</td>
</tr>
<tr>
<td>Investor_4_ID</td>
<td>Investor, Company</td>
<td>1</td>
<td>private_equity_firm</td>
</tr>
</tbody>
</table>

In the investor dataset there are columns that have more than one value (type, investor_types). To correctly represent this type of variables, a one-hot encoding is performed. The result obtained is shown in the following figure:

<table>
<thead>
<tr>
<th>Lead Investors ID</th>
<th>Investor _count</th>
<th>angel _count</th>
<th>Venture _count</th>
<th>Investment _partner</th>
<th>Private_equity_firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inv_1_ID</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Inv_2_ID</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Inv_3_ID</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

For the rest of the columns, it has not been necessary to apply any type of transformations. Now the total number of columns for the set of investors is 30.
BFSI startups

In the second dataset we have the information of all the companies (73,000) that belong to the BFSI sector. The columns forming the dataset are those selected in section 2. As in Figure 1, the startups are related to the samples of the general dataset.

Each of the startups can have 1 or more different activities. There are a total of 46 different types of activities. To do this, one-hot encoding is applied, obtaining the following result:

<table>
<thead>
<tr>
<th>Organization ID</th>
<th>Financial Services</th>
<th>Lending &amp; Investments</th>
<th>Apps</th>
<th>Real Estate</th>
<th>E-commerce &amp; Shopping</th>
<th>AI</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inv_1_ID</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Inv_2_ID</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Inv_3_ID</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Inv_4_ID</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Acquired startups

In this transformation, the target variable will be created and will be used for the startup prediction of success or lack of success. It is a simple transformation because only the ID of the organizations must be related for the creation of the variable.

<table>
<thead>
<tr>
<th>Organization_ID</th>
<th>Round</th>
<th>Acquired Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Startup_1</td>
<td>Series_A</td>
<td>25-10-2017</td>
</tr>
<tr>
<td>Startup_25</td>
<td>Series_B</td>
<td>12-05-2018</td>
</tr>
<tr>
<td>Startup_10</td>
<td>Series_C</td>
<td>02-11-2014</td>
</tr>
<tr>
<td>Startup_35</td>
<td>Series_D</td>
<td>11-09-2016</td>
</tr>
</tbody>
</table>

If an organization in the general sample appears in the set of successful ones, it is established as a successful organization. The date on which the organization was acquired is not taken into account and it is established that it is successful regardless of the series in which it is found. Only one variable is created:

> Successful: binary variable with 0 values for unsuccessful organizations and 1 for successful companies.

Startups funding rounds data

Finally, different variables have been created for the original dataset of organizations. It should be noted that this now has new variables that have been created from external data (investors, BFSI startups).

For each of the organizations, it can have more than one record. Each one of the records is associated with the round in which it is located. New variables are added to each record that refers to data from previous rounds:

- **diff_rank**: difference in CB rank position between the current round and the previous round.
- **diff_time**: time difference between the current round and the previous round.
- **diff_raised_money**: difference in money received between the current round and the previous round.

To maintain temporary information for each of the rounds, new variables are created from the previous ones. Information is maintained on the first 5 rounds of each of the companies. In case of not having 5 rounds, then these values will be kept at -1. A total of 15 new variables are created:

- **rank_round_[0…4]**: the rank position of the organization in each round is established.
- **time_round_[0…4]**: how long an organization has been on each of the rounds.
- **money_round_[0..4]**: how much money an organization has raised in each of the rounds.

The result obtained after making the transformations is the creation of 15 new variables. The following table shows the variables that have the highest correlation with the target:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investor_count</td>
<td>0.074982</td>
</tr>
<tr>
<td>Num_funding_rounds</td>
<td>0.053182</td>
</tr>
<tr>
<td>Private_equity</td>
<td>0.067037</td>
</tr>
<tr>
<td>Series_a</td>
<td>0.031685</td>
</tr>
<tr>
<td>Series_b</td>
<td>0.035218</td>
</tr>
<tr>
<td>Series_c</td>
<td>0.045052</td>
</tr>
<tr>
<td>Series_d</td>
<td>0.051740</td>
</tr>
<tr>
<td>Series_e</td>
<td>0.041591</td>
</tr>
<tr>
<td>Series_unknown</td>
<td>0.062405</td>
</tr>
<tr>
<td>Commerce and shopping</td>
<td>0.023029</td>
</tr>
<tr>
<td>Hardware</td>
<td>0.027971</td>
</tr>
<tr>
<td>Internet services</td>
<td>0.026285</td>
</tr>
<tr>
<td>Messaging and Telecommunications</td>
<td>0.034295</td>
</tr>
</tbody>
</table>

With the final dataset obtained, the next step is to apply the different machine learning algorithms to estimate which companies will or will not be successful.
Predicting successful organizations

This section explains the evaluation metrics used for this type of task. It explains the problem with the imbalance of training data and the solution provided. The results obtained for each of the machine learning algorithms used are provided. Finally, an analysis is made of the feature importance for the model with which the best results are obtained.

Imbalanced data

In classification problems, data balancing is a very important aspect. A dataset is imbalanced if most of the data (~80%) belongs to a single class. If you work with these data, the classifier can be biased and will always make predictions in favor of the majority class. This would give excellent overall classifier results but would not solve the problem.

In this transformation, the target variable will be created and will be used for the startup prediction of success or lack of success. It is a simple transformation because only the ID of the organizations must be related for the creation of the variable.

In the dataset with which we work in this task, we suffer an imbalance of classes, where we have 90% of data for unsuccessful companies and the rest for successful ones. To mitigate this effect there are different methods:

- Oversampling: to equate the number of samples of the minority class with that of the majority class. Synthetic samples of the minority class are created for this purpose.
- Undersampling: reduce the number of samples of the majority class to match that of the minority class.

In this case, the oversampling option has been used because the number of samples is not large enough. If it is reduced, there may not be enough samples to achieve good results with machine learning models. The technique used for oversampling is SMOTE. (*)

Evaluation metrics

The evaluation metrics used for the classifiers used are the True Positive Rate (TPR) and False Positive Rate (FPR). These evaluation rates are commonly used for binary classification problems, but they are also used to fairly evaluate problems with class imbalance. In addition, using the same metrics, we can make a statistical comparison between the two approaches for the same problem.

The Positive True Rate or Recall is defined as the percentage of successful companies that have been classified as such.

\[
TPR = \frac{TP}{TP + FN}
\]

The false positive rate is defined as the percentage of companies that are not successful and have been classified as successful.

\[
FPR = \frac{FP}{FP + TN}
\]

The TPR is an indicator of the predictive capacity with the selected variables, on the problem that has been proposed for the classification of successful companies. Precision will be displayed as a support metric and can be defined as the percentage of successful companies ranked correctly.

\[
Precision = \frac{TP + TN}{TP + FP + TN + FN}
\]

Experiment results

For the experiments, different machine learning algorithms specific to binary classification problems have been selected. The selected algorithms are Logistic Regression (LR), Support Vector Machines (SVM) and Random Forest (RF). The results have been evaluated with the evaluation metrics presented in previous sections.

The dataset has been split into 70% for the training set and 30% for the test set. The data shown in the following table are those obtained for the test set:

<table>
<thead>
<tr>
<th></th>
<th>Precision</th>
<th>Recall</th>
<th>F1-Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistic Regression</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unsuccessful</td>
<td>0.84</td>
<td>0.67</td>
<td>0.75</td>
</tr>
<tr>
<td>Successful</td>
<td>0.52</td>
<td>0.74</td>
<td>0.61</td>
</tr>
<tr>
<td>Avg.</td>
<td>0.68</td>
<td>0.74</td>
<td>0.68</td>
</tr>
<tr>
<td>Random Forest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unsuccessful</td>
<td>0.91</td>
<td>0.95</td>
<td>0.93</td>
</tr>
<tr>
<td>Successful</td>
<td>0.95</td>
<td>0.91</td>
<td>0.93</td>
</tr>
<tr>
<td>Avg.</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
</tr>
<tr>
<td>Support Vector Machines</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unsuccessful</td>
<td>0.79</td>
<td>0.84</td>
<td>0.82</td>
</tr>
<tr>
<td>Successful</td>
<td>0.82</td>
<td>0.78</td>
<td>0.80</td>
</tr>
<tr>
<td>Avg.</td>
<td>0.81</td>
<td>0.81</td>
<td>0.81</td>
</tr>
</tbody>
</table>

With Random Forest algorithm we achieved the best results. The highest TPR has been achieved with RF with a rate of about 91%. For the FPR a percentage of 4% has been obtained, which is not high but which will allow studies to be carried out to interpret these results. In the case of FPR it is important because it can be about companies where patterns have been found that relate to successful companies. Therefore, these companies can have a great potential for success in the future.

The results obtained with SVM are not bad in general terms but the classifier has more difficulties in detecting which of the samples are successful organizations. In the case of Logistic Regression results, the worst results have been obtained, indicating in some way that our data does not have a linearity that helps predict successful organizations.

The main objective of this work is to estimate the companies that are going to be successful. Once the estimate has been made, it is also important to see why our model has behaved in one way or another. To do this, the importance for each of the variables in the data set used has been calculated. In the following figure we see the result obtained for the RF classifier:

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

As can be seen in the figure, the variables have been ordered from highest to lowest importance. These results are really good to know which factors are influencing the success of an organization in a specific insurance context. Another positive finding is that the variables created to add temporal information from the first 5 rounds have had a great impact on the model.

The results obtained allow more emphasis to be placed on investor data for future studies in the same context. For this purpose, it would be interesting to carry out an in-depth study on investors and to search for more relevant data on the investments they have made in order to be able to add it to our dataset.

Evaluation by features
In this section the results are evaluated on the basis of different features. The results shown are those obtained for the test set. The following table shows the results obtained for different rounds:

<table>
<thead>
<tr>
<th>Sample</th>
<th>TPR</th>
<th>FPR</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed</td>
<td>90%</td>
<td>5%</td>
<td>868</td>
</tr>
<tr>
<td>Series_a</td>
<td>89%</td>
<td>4%</td>
<td>438</td>
</tr>
<tr>
<td>Series_b</td>
<td>88%</td>
<td>6%</td>
<td>258</td>
</tr>
<tr>
<td>Series_c</td>
<td>91%</td>
<td>7%</td>
<td>126</td>
</tr>
<tr>
<td>Series_unknown</td>
<td>90%</td>
<td>4%</td>
<td>678</td>
</tr>
</tbody>
</table>

In general, good results have been obtained for all the evaluation rounds evaluated. It is observed that as fewer samples are taken, the FPR increases, which indicates that this is a significant factor. The following figure shows these results including the rest of the funding rounds:

The figure shows the number of successful companies for each round of funding. In pink, we can see the number of companies that have been predicted as successful. Finally, in dark blue, the errors obtained in each of the samples are shown. The highest number of errors are obtained in the first rounds of financing (seed).
Insurtech Samples

Using the previously trained models, this section describes the results obtained for the classification of the Insurtech dataset. There are a total of 1800 samples from different companies and their financing rounds. The samples have been adapted to those described in the first sections, thus maintaining the same characteristics. The following table shows the results obtained for this sample:

<table>
<thead>
<tr>
<th>TPR</th>
<th>FPR</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>6%</td>
<td>100</td>
</tr>
</tbody>
</table>

For this sample, the number of successful companies was out of a total of 100. It is possible that many of the successful samples evaluated were never seen by the model that classified the CrunchBase samples, yet the TPR rate is considered positive. What is most interesting in this case are those companies that were not successful and have been classified as successful. The following graph shows this result:

It is important to remember that in the study, successful companies are those that have been acquired, so there may be companies that we know are successful in reality (but have not been acquired) classified as unsuccessful. The above figure shows the results for unsuccessful companies. The Y-axis shows the probability (out of 1) that a sample is unsuccessful. The interesting companies to investigate in this case are those that are outliers with a probability of less than 0.45. With this information, it is possible to carry out different, more extensive studies to find out which patterns of the general classifier have been relevant for the classification of these samples. The following figures show the rounds and the CB Rank (in the Seed and series A round) of the companies that have been classified as successful:

The first picture shows in each round how many unsuccessful companies have been classified as successful. It can be seen that the highest number occurs in the Seed round. The following image shows those companies that are in the seed round and have been classified as successful:

The above companies are really interesting because they are in one of the first funding rounds. Many of these companies have had more funding rounds after this one. The following picture shows the series A companies:
It is also an accomplishment to predict success for these companies and that some of them have continued with more rounds of investment, increasing the money invested. It means that the classifier is able to recognize patterns of success in the Insurtech samples. As in the previous images, different studies can be carried out on each of the companies in each of the rounds. In this case, the position in the CB Rank of the companies has been shown, but it would also be interesting to be able to investigate about the money invested in each round or the number of investors, for example.

It can be concluded that the study previously conducted has yielded results for the Insurtech dataset. In this dataset where we only had a total of 1800 companies with 100 successful ones, the results would have been biased and not very useful. By applying the study and the models used for the CrunchBase dataset, an experiment has been carried out that detects companies labelled as successful and unsuccessful with a good success rate. Without a doubt, the interesting part has been to detect those unsuccessful companies that have been classified as successful. Another positive point is that the companies detected are in early funding rounds such as the Seed Round. Finally, conclude that the previously trained classifier is also valid for detecting success patterns in the insuretech sample.

Conclusions

In this investigation, it was raised as goal the prediction of the success or not of the startups. Different steps have been taken to obtain a set of data with general data of the startups along with external data to them. The prediction results have been the most effective with the Random Forest algorithm, both for TPR (91%) and FPR (4%), and Precision (93%) evaluation.

With the results of the classifier, it has been possible to calculate the importance of each of the variables in the model. This provides an added value to the prediction, which can be used by investors to propose or carry out studies to improve their future investments. As mentioned above, the FPR rate should not be considered as a bad result since it may indicate that a startup that has not been catalogued as successful may have the potential to achieve success.

These results have been applied to the insuretech sample, where good results have also been achieved. In this case, greater emphasis was placed on the FPR rate, which indicated companies with a high potential for success. By providing new data, conclusions can be drawn as to why these samples were classified as successful. With more information about the investors it is possible that the results could be improved. It would also be good for the classifier to add features drawn from organizations’ social networks. With these features it would be possible to calculate the the level of performance they reach or features related to users interaction.

The results that have been achieved of the specific context of the insurance sector order to improve the results obtained in this work and to be able to evaluate in more detail, it would be necessary to have more data on companies in the insurance sector. With more data for successful and unsuccessful companies, it would be possible to establish additional contexts within the field of the insurance sector and assess the factors affecting each of the contexts.

References


Methodology and Team.
Sample.

Insurtech Global Outlook is based on information obtained from different sources of information, both public and private, including Crunchbase, and it was done through inttrend platform (an NTT DATA asset).

3 different sources of information:
- Crunchbase.
- Information obtained from the investment arms of insurance companies.
- Information based on investment made by public funds.

Regarding the data obtained from Crunchbase, we also have applied the following criteria:
- Startups that obtained financing in investment rounds from 2010 to 2019 (full year) were considered.
- Companies that were still active at the end of 2019 (those that were not active in that period) were discarded.
- With the search terms “Insurance, Insurtech” in the category / subcategory / full description fields: Insurtech, Insurance, Auto, Health, Life, Property Insurance, Coverage, Policy...
- And a series of terms related to the insurance sector were also searched in the descriptions of the companies to complement and refine the previous query.

To expand the scope, the inttrend team worked on a Query Builder (concept + keyword = equation) so that the logic of keyword searches gave us a more restricted universe. This whole process was carried out with the inttrend platform, which automates the search process and refines it to the maximum to obtain the most accurate and optimal results possible.

This exhaustive exercise has allowed us to select an accurate sample of around 900 companies to analyze the evolution of investment in insurtech companies throughout the 2010-2019 period.

In parallel, a team of specialists in the insurance sector analyzed all the information and complemented it by adding relevant information and categorizing the sample. This work included an exhaustive mapping in which categories of Insurance, scope, Line of Business, Technology, Activity, Business Model, Value Chain, type of commercial transaction (B2B, B2C or B2B2C) and Ecosystem were incorporated.

Survey.

This year, the survey was conducted among 44 insurance companies in 12 countries.

The survey consisted of 5 parts with a total of 34 questions:
- Categorization questions.
- Questions about the digital maturity of the company.
- Questions about collaboration with insurtechs.
- Questions about the role of TechGiants.
- Questions about new trends and challenges.

The survey was conducted from November 2019 to January 2020.

Belgium
Brazil
Colombia
Germany

Italy
Japan
Mexico
Netherlands

Portugal
Spain
Switzerland
United States
Predicting successful organizations.

53,000 startups from BFSI, the most representative and active industry in the startup practice, were analyzes for this study. It was taken into account that the “exit” is the most objective dat to measure the level of success of a startup.

Once those variables were identified, the algorithm was trained and tested in accordance with the 53,000 startups (in early stages) in order to validate the level of accuracy of the algorithm. A 90% of accuracy was obtained, which identifies those that really achieved the exit.

After this, the algorithm was used in the sample and those in seed and Series A were identified as those with the highest probability to achieve the exit. Overall, this represents a completely different way to analyze the startups looking beyond the total amount of them (reactive) and having a look at those key variables (proactive), especially when they are in their earlier stages.