



# The platform-fueled future

*New ways to differentiate in a changing insurance industry*

IBM Institute for Business Value

## Executive Report

Industrial Products



## *In this report*

*Four roles insurers can play in a platform*

*The top five reasons non-adopters are not participating in insurance platforms*

*Platform benefits that can improve both sides of the balance sheet*

## How IBM can help

Maturing markets, tight capital, increasing risk and technologically sophisticated customers are just some of the pressures the insurance industry faces today. As a result, insurers have to work faster, more efficiently and above all, smarter. Those that do can thrive, but others will fail. Insurers need to be more nimble, innovative and connected with their customers. The IBM Global Insurance team has reinvented itself, providing solutions to help clients meet the demands of today's insurance business. From enhanced customer service to greater efficiency in the back office and improved risk management, there's a smarter solution for you. For more information about IBM Insurance solutions, visit [www.ibm.com/insurance](http://www.ibm.com/insurance)

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## A leap forward

*Deep-rooted paradigms in the insurance industry are shifting. With bespoke legacy systems impeding innovation, leading carriers are looking to industry platforms – often powered by entrepreneurial insurtechs and other technology providers – to reduce cost, enhance flexibility and most importantly, improve customer experience and engagement. Platforms are a game-changer, with adopters of platform business and operating models gaining a decisive edge over competitors. Based on a survey of 1,000 insurance executives globally, we explore how platforms can free up insurers to differentiate on what they do best: manage, mitigate and price risk.*

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## Convergence

From the Greek agora, the Roman forum and the oriental bazaar, all the way to medieval and modern town squares, people have been drawn to congregate at common locations. These environments transcended commerce to provide many advantageous functions, including the exchange of information and political views, game playing or simply socializing.

With the advent of the internet and other technologies that advance connectivity, the town square is now rivaled by online digital platforms. Early versions tended to serve a single, primarily business-oriented purpose. eBay, for example, was founded in 1995 as AuctionWeb, a platform to enable consumer-to-consumer selling via online auctions.<sup>1</sup> PayPal launched in 1999 as a money transfer service platform. It was acquired by eBay in 2002 and integrated as a payment option for eBay users.<sup>2</sup>

Later iterations of these business platforms often expanded beyond a single function or product type to include multiple benefits. Apple's iTunes started out as a music player and library, later adding multimedia such as video, audiobooks and podcasts. iTunes also incorporated an app store where a multitude of developers interact with end users, promoting and selling their apps for Apple's range of iOS phones and tablets. This created a value exchange between platform contributors and users, generating value for both groups and network effects that grow with the increase in participants.<sup>3</sup>

**85%**

of outperforming insurers surveyed report that platforms are disrupting the industry

**74%**

of outperforming insurers surveyed say they would be willing to provide products, services and intellectual property via platforms

**Yet only 46%**

of outperformers tell us they want to develop a platform

Today, business platforms represent a huge opportunity. According to the IBM Institute for Business Value (IBV) Global C-suite Study, companies operating business platform models can achieve market valuations as high as eight times their revenues.<sup>4</sup> The total investment in these models is estimated to be up to USD 1.2 trillion over the next few years.<sup>5</sup>

To better understand the role digital business platforms will play in the insurance industry, we surveyed more than 1,000 executives globally on their organizations' platform readiness, strategy and objectives (for more details, see "Methodology" on page 18). Based on premium growth and efficiency, 32 percent of the sample were classified as "outperforming insurers" and the rest as "average insurers."

The insurance industry has been hesitant in platform adoption, just as it has with adoption of prior new technologies. While other leading industries have been significantly increasing the proportion of their investment capital allocated to platform business models (for example, petroleum with 50 percent, travel 27 percent and banking 18 percent), insurers increased platform investment by a mere 7 percent.

But while only 36 percent of insurers derive revenue from insurance platforms today, they do expect this to change in the near future. More than 80 percent of insurers overall – and 99 percent of outperforming insurers in particular – expect at least 3 percent of their revenues to come from insurance platforms within the next three years. And more than half of outperforming insurers expect the figure to be more than 10 percent.

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## Reaction

Recent IBV studies have concluded that insurers are well aware of technologies and their disruptive potential for the industry. The same holds for digital platforms: 54 percent of average insurers and 85 percent of outperformers see platforms as disruptive factors.

Unfortunately, average insurers also tend to view these disruptions as somebody else's problem. Less than a third say that platforms are disrupting their own operations and business models, and only 21 percent have adapted their business strategies to include platforms and their increasing disruptions.

In contrast, outperforming insurers understand that industry disruption affects virtually all participants, with 70 percent stating platforms will disrupt their own organizations and 71 percent adjusting their strategies. We expect that this contrast will lead to a two-speed insurance market, with leaders and fast followers forging ahead, and the slow and meek incrementally marginalized and ultimately devoured by more agile competitors.

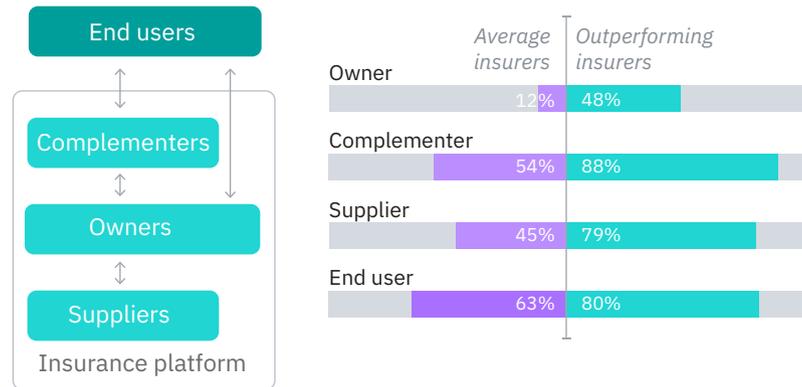
The good news is that while insurance platform adoption remains relatively low, leading insurance companies are already experimenting with platform participation across one or more roles. They can run the platform as owner, be an end-consumer of the platform's services, or add services themselves as platform complementers or suppliers (see Figure 1).<sup>7</sup>

### What is a digital platform?<sup>6</sup>

A platform connects two or more participating entities and allows them to interact with each other, thus enabling interactions between producers and consumers. Platforms consist of three elements:

1. A marketplace or ecosystem
2. One or more applications
3. Infrastructure.

**Figure 1**  
*Insurers can have various roles in platforms*



Source: 2018 IBM Institute for Business Value Platform Survey.

As their name implies, platform owners are at the center of platform environments and models. They often originate the underlying business idea and lead governance and continued development. In our earlier examples, eBay, PayPal and Apple own their respective platforms. Average insurers say they are not comfortable taking on the platform ownership role, with only 12 percent of average insurers naming this as a current role or one they plan to adopt in the next three years. However, almost half of outperformers are or plan to be platform owners within that period.

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Both suppliers and complementers enhance the platform by adding services, with an important distinction. Suppliers are internal to the platform and invisible to the end user. They provide auxiliary functions, such as tools, technologies and resources, to the platform. These functions are non-differentiating and relatively easy to exchange among different suppliers. A typical example of a supply function is the cloud service the platform uses. Non-differentiating insurance functions could include carrying risk or policy administration, or insurance functions that can be commoditized. Forty-five percent of average and 79 percent of outperforming insurers operate or plan to operate as platform suppliers.

In contrast, platform complementers are visible to the end user and provide an essential part of the platform value proposition. For insurance, this would include functions that reach into an insurer's core competencies related to risk such as actuarial services, underwriting or risk management. Although the boundaries can be fluid, these functions differ from those of a pure risk carrier. The former rely on insurer-specific knowledge about risks, their circumstances and pricing, while the latter are mainly a capital aggregation function. Fifty-four percent of average insurers and 88 percent of outperformers operate or plan to operate as platform complementers.

Why does the difference between suppliers and complementers matter? Only the complementers add differentiation, both to the platform itself and to their own brands.

The fourth role is that of the platform end user. Depending on the value proposition of the platform, these end users can be consumers or other organizations that want to source non-core functions and concentrate on their core businesses. The end user role is what 63 percent of average insurers seem most comfortable with. For an example of various platform roles in action, see case study on page 6, "Sapiens Property & Casualty Platform."

### Sapiens Property & Casualty Platform: Multiple goals, multiple roles

Starting out as a pure insurance software vendor, Israel-based technology provider Sapiens has recently implemented an insurance platform in North America for various insurance back-office functions such as policy administration, claims and billing.<sup>8</sup> Besides operating the platform as owner, Sapiens also assumes several supplier roles by providing its back-office application modules to the platform. The cloud IT services are supplied by an external provider.<sup>9</sup>

One of the complementers boosting the platform's value is insurtech EasySend, which adds digital transaction management such as smart forms to the mix.<sup>10</sup> Finally, end users are insurance companies that are looking to divest in-house IT of part or all of its legacy back-end.

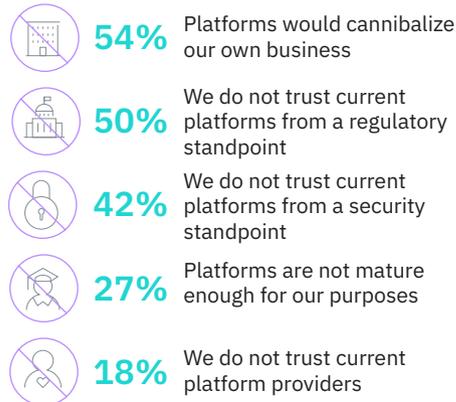
Platform participants might have several roles within one platform, including end user. Indeed, once we see more insurance companies setting up platforms, we believe that benefiting from their own consumption of platform-provided services will be a likely rationale for adopting the model, in addition to enhanced revenue streams.

Across all roles, 83 percent of average insurers and all but one of outperformers surveyed are participating or planning to participate in a platform. So why are the others waiting it out? The top three specific concerns are cannibalization of existing business, regulatory uncertainty and security (see Figure 2).

**Figure 2**

*Non-adopters fear uncertainty and effects on their businesses*

*We are not participating in platforms because*



Source: IBM Institute for Business Value analysis.

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Insurers' concern about security is well-founded. A recent IBV insurance study looked at the risks of digital interconnectedness, also known as cyber risk, and found that while a majority of companies are prepared to invest in digital interconnectedness, only 13 percent have mature cyber risk management.<sup>11</sup> Less than half expect to have the skills to adequately cope with the risks of an interconnected world by 2025.<sup>12</sup> Fortunately, the tools already exist to address security concerns such as blockchain and artificial intelligence (AI)-enabled cognitive security solutions. Platforms, especially those built from scratch, have a unique opportunity to address the security challenge right from the start.

Insurance regulation has often overshot its goal of protecting end customers and has become cumbersome for many insurers. Yet regulation has also often been a scapegoat, contributing to insurers' own inability or unwillingness to innovate. Whether or not regulation will be an actual burden for insurance platforms will depend on the exact nature of a platform's services and business models. Regulatory burden will mostly fall on platform owners. For example, in the Sapiens case study on page 6, the platform owner has to ascertain regulatory compliance regarding policy. One solution is proposed in the recent IBV study on insurtechs: regulators could pre-certify platforms or their components to simplify overall regulatory effort and lessen insurer concerns.<sup>13</sup>

Finally, insurer concerns about cannibalization are real. Platforms will shift both revenues and costs away from traditional modes of working. Consider insurtech-led telematics platforms that allow insurers to offer driving behavior-based auto insurance products such as Metromile and Motion-S. Whether most insurers participate or not, new platforms are diverting a significant segment of the auto insurance market away from traditional one-size-fits-all products. The resulting shift is to usage-based insurance or mobility packages that include insurance as white-labeled risk cover that customers might not even see.

On the other hand, the ability to purchase services that previously needed to be in house – such as owning and hosting a policy administration system with the attendant headaches of developing and maintaining IT infrastructure and applications – can greatly increase insurer flexibility, allowing focus on functions that are actually differentiating.

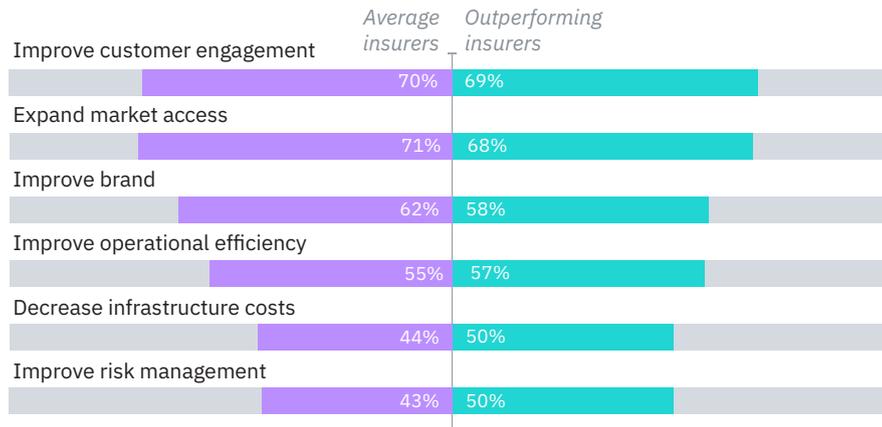
## Vision

Despite the concerns, insurers of all types recognize many advantages to participating in platforms, including the top six benefits shown in Figure 3.

**Figure 3**

*Insurers see platform benefits on both sides of the balance sheet*

*How will platforms benefit our organization*



Source: 2018 IBM Institute for Business Value Platform Survey.

**Techniker Krankenkasse TKSafe:  
Giving members control over their  
health data<sup>15</sup>**

Techniker Krankenkasse (TK) is the largest German health insurer with over 10 million members. In Germany, health information is currently fragmented, with healthcare providers keeping their own separate records that offer no patient control over the data. To resolve this issue, TK and IBM created the healthcare platform TKSafe, an electronic health file (eGA). Via a secure app, the eGA gives TK members full access to and control over their own data, such as vaccinations, diagnoses or X-rays.

To make the platform as extensive as possible, TK is building an ecosystem of healthcare providers connected to TKSafe. For example, cooperation agreements are in the works with numerous hospital providers, covering more than half of all hospital beds in Germany. Other complementers, such as doctors' letters or appointment apps, will be added in future iterations.

The top perceived benefit, improving customer engagement, closely tracks our observations in the IBV insurtech study mentioned earlier: insurtechs are also seen as driving the insurance industry toward improved customer engagement.<sup>14</sup> (See case study, "Techniker Krankenkasse TKSafe.") The top benefits are evenly split on both sides of the balance sheet. Customer engagement, expanded market access and improved branding can manifest themselves in increased revenue. In addition, operational efficiency gains, decreased cost and improved risk management can enhance insurers' overall expense positions.

In the early days of insurance automation, computing power was at a premium. As a result, insurer back-end systems and their efficiency gains over manual administration were seen by many insurers as a key differentiating factor. Today, the complexity and sheer number of those legacy back-end systems are a major reason why many insurers have difficulties innovating. Sixty percent of all insurers surveyed and 88 percent of outperformers specifically report they have at least two policy administration systems, with almost half of outperformers reporting five or more systems.

This finding is partly an artifact of insurer size. Given the economies of scale in the insurance industry, more outperformers tend to be larger insurers. But the finding is also due to industry consolidation, leaving successful insurers to deal with legacy or operational confusion resulting from significant merger and acquisition activity. Consolidating back-ends by means of platforms is a logical next step in cost reduction and efficiency.

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## Differentiation

With insurance operations becoming simplified, standardized and even commoditized through platforms, how do insurers expect to differentiate themselves in the future? The clear front runner for insurance executives is customer experience, with 66 percent of respondents expecting to differentiate their organizations by this measure. Fifty-four percent identify product differentiation, meaning better tailoring and individualization, including increased integration in more complex value propositions such as mobility. And 54 percent plan to differentiate on pricing, which can mean accepting all risks at overall higher premiums or excluding certain risks while charging less.

For platforms themselves, the question of differentiation is also becoming relevant. Platforms that are taking on traditional insurer functions related to carrying risk, risk management or other risk-related capabilities will be in the same boat as insurers. Other platforms that operate on a business-to-business (B2B) model, with insurers as the end users, will pursue other approaches. Here, the main differentiators are threefold:

- The quality of core functions provided; for example, how flexible platforms are regarding products, how easily they integrate and how simple they are to maintain.
- Services that add value – for example, payments or actuarial services.
- Cost-sharing mechanisms that new platforms provide to platform participants, complementers and end users alike. These can be important in situations such as regulatory changes, with the most adept platforms making those changes quickly, efficiently and at lower cost.

Value-added services are provided by complementers, which can be insurtechs, insurers or others. Insurers participating as complementers will be able to “double-dip” into their own differentiating factors. For example, an insurer that excels at risk management can offer those services as part of its own portfolio, while at the same time providing services to a platform that underwrites and administers policies for other insurers.

Since platforms rely on networks of at least partially interchangeable players, an increase in industry standardization is both probable and desirable. Organizations investing in platforms will demand standards to be open and flexible. Otherwise, platforms built on proprietary interfaces will force participants into the same legacy trap as existing core systems. We expect standardization to be concentrated in data-heavy areas, particularly the enrollment, underwriting and claims processes – all functions where multiple interactions with various actors and systems are necessary.

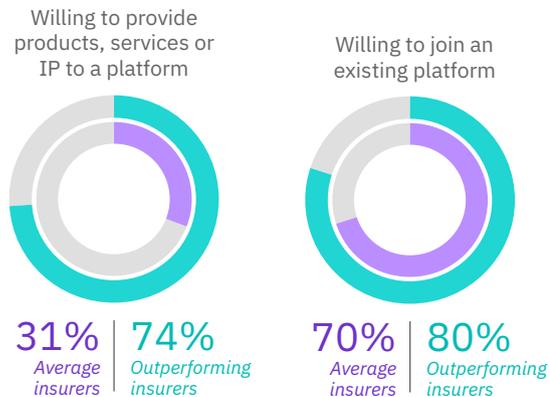
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## Execution

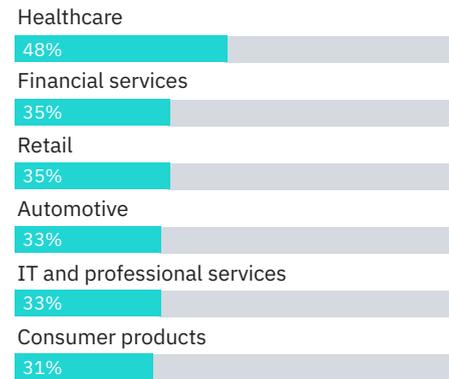
“Real” insurance platforms – offerings that go beyond a simple rebranding of off-the-shelf insurance applications to include ecosystem, application and infrastructure – are still mostly in their infancy. Yet the platform market is increasingly accelerating through experimentation by leading insurers. According to our survey, 74 percent of outperforming insurers proclaim a willingness to provide products, services or intellectual property to a platform. Eighty percent of outperformers are willing to join existing platforms (see Figure 4).

**Figure 4**

*Leading insurers are willing to participate and contribute to platforms*



Source: 2018 IBM Institute for Business Value Platform Survey.

**Figure 5***The future of platforms is cross-industry**Where would insurers participate, cross-industry?*

Source: 2018 IBM Institute for Business Value Platform Survey.

Only 46 percent of outperformers – and less than one-third of insurers as a whole – are willing to develop or co-develop a new insurance platform. Of this group, less than half trust other insurers or even insurance associations in joint development efforts. Most prefer partners that have experience in developing insurance technology and running infrastructure, such as insurtechs (84 percent), IT providers (75 percent) or traditional solution providers such as msg life or Guidewire (71 percent).

More than 90 percent of insurance executives expect the participation rate in platforms to increase over the next 10 years within their industry. And as many as 87 percent of executives with outperforming insurers (and 61 percent of all insurers) expect cross-industry platforms to increase in prominence as well.

What industries would these be? Respondents are fairly divided on this issue, choosing a wide range of industries. Among the obvious favorites are healthcare and automotive (see Figure 5). Looking across the platform market globally, the combination of insurance with one of these two industries is where most cross-industry platform experiments are happening (see case study on page 15, “Arity and the City of Chicago”).

Platforms are the logical next step to overcome the inefficiencies of insurance legacy systems. As with other emerging technologies, a few forward-thinking insurers are increasingly blazing a trail, with others that are flexible in thinking and infrastructure following. Those insurance carriers with slower strategies will inevitably fall behind. But by acting now, even laggards can earn a place in the platform-fueled, ecosystem-enabled insurance industry of the future.

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## Recommendations for insurers

### **Adjust your business strategy to include platforms**

In a platform world, traditional models of differentiation will cease to work. The first step is to decide what you want your brand to be known for, such as customer experience or highly tailored products. As competitors decrease vertical integration from nearly 100 percent today, decide which activities are strategically necessary to determine if and where platforms come into play.

For every platform you develop or join, several decisions need to be made, such as which products or geographies to use it for, or which books (open or closed) are to be included. Determine which role you want to assume in a platform: ownership, providing services or consuming them.

### **Select or develop the right platform for your chosen strategy**

When developing a platform, decide whether you want to be the orchestrator of the platform ecosystem. If not, decide on a facilitator you are comfortable with.

Require that the platform addresses potential participant concerns from the start. How is security handled? Work with authorities to achieve early regulatory buy-in and oversight. Ascertain governance and participation of all stakeholders and participants to achieve necessary functionality, scalability and value.

### **Arity and the city of Chicago: Using predictive analytics to improve traffic safety**

Arity is a technology company founded by US insurer Allstate Corporation in 2016. It is focused on travel and transportation, building a platform on more than 20 billion miles of historical driving data with more than a million active telematics connections and over 10 years of data directly from cars. The platform uses a predictive model to help insurers understand risk better. One example involves individualized pricing.<sup>16</sup>

In a further cross-industry move, Arity is working with the Chicago Department of Transportation on its Vision Zero initiative. This will allow urban planners to use the platform and its data to understand the causes and variables of crashes better, taking into account factors such as weather conditions or scheduled events, ultimately leading to real-time traffic management for improved travel safety.<sup>17</sup>

**Add flexibility to your in-house components to get ready for platforms**

Evaluate your existing application landscape to determine where platform adoption can fit right away and where major changes need to be made first. Identify which components you want to contribute, and which to consume. Applications need to be cloud-ready using service-oriented architecture. Adjust internal application development to switch to this platform-compatible paradigm as a software-as-a-service (SaaS) provider. Establish clear application programming interface (API) management; each marketplace in which a platform operates will set API requirements for participants.

**Expand the ecosystem**

Identify and work with ecosystem partners to improve overall potential value of platforms used. Where possible, participate in platform consortia to improve platform operation and direction as a whole. Insurtechs tend to be faster-moving than traditional insurance companies. Working with insurtechs as partners or acquisitions can help organizations attain future platform-compatible skills and capabilities.

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## Are you ready to set yourself apart from competitors?

If you have a platform strategy, what must you do to execute? How does it fit into your overall business strategy?

How do you plan to differentiate your organization in a platform-based economy and insurance market? What capabilities are in place to support this differentiation?

In what ways have you adapted your infrastructure to be platform and cloud-ready? How does your application development process support this? What kinds of partnerships could help you expand the platform horizon?

**Methodology**

In cooperation with Oxford Economics, the IBV surveyed 1,000 business insurance executives in 35 countries globally in June and July 2018. All participants were asked a range of questions centering on insurance platforms regarding participant readiness, platform benefits and the role platforms will play within the insurance industry going forward.

Respondents were grouped into outperforming and average insurers by premium growth and efficiency. Thirty-two percent of insurers in the sample were classified as outperformers. Twenty-one percent of these outperformers are large insurers with annual gross premiums written at more than USD 5 billion, compared to three percent of average insurers.

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### **Related reports**

Bieck, Christian, Lynn Kesterson-Townes, Anthony Marshall, Mark McLaughlin and Stefan Riedel. “Friend or foe? Insurtechs and the global insurance industry.” IBM Institute for Business Value. February 2018. <http://ibm.biz/insurtechs>

Bieck, Christian and Mark McLaughlin. “Insurance 2025: Reducing risk in an uncertain future.” IBM Institute for Business Value. March 2017. <http://ibm.biz/insurance2025>

Bedell, Craig, Christian Bieck, Anthony Marshall and Stefan Riedel. “You, me or us: Digital Reinvention in the global insurance industry.” IBM Institute for Business Value. October 2017. <http://ibm.biz/drinsurance>

### **For more information**

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**Notes and sources**

- 1 Definition of “eBay.” Wikipedia. <https://en.wikipedia.org/wiki/EBay>. Accessed on August 3, 2018.
- 2 Definition of “PayPal.” Wikipedia. <https://en.wikipedia.org/wiki/PayPal>. Accessed on August 3, 2018.
- 3 Van Alstyne, Marshall, Geoffrey Parker, Sangeet Paul Choudary. “Pipelines, platforms and the new rules of strategy.” *Harvard Business Review*. April 2016. <https://hbr.org/2016/04/pipelines-platforms-and-the-new-rules-of-strategy>
- 4 “Insurance: Incumbents Strike Back.” IBM Institute for Business Value. February 2018. <http://ibm.biz/csuiteins>
- 5 Ibid.
- 6 IBM Global Markets platform definition.
- 7 Parmar, Rashik. “Introduction to Disruptive Businesses Platforms.” IBM internal paper. 2018. Note: The original model differentiates between platform owners and providers. Since in practice these are the same entity most of the time, we omit this distinction for the sake of simplicity.
- 8 “The Sapiens P&C Insurance Platform for North America.” Sapiens.com. 2018. <https://www.sapiens.com/wp-content/uploads/2018/06/4-page-brochure-digital-PC-USA.pdf>. Accessed on August 3, 2018.
- 9 “Sapiens ALIS Now Available in the Cloud for Life, Annuity and Pension Providers.” PRNewswire. April 4, 2016. <https://www.prnewswire.com/news-releases/sapiens-alis-now-available-in-the-cloud-for-life-annuity-and-pension-providers-574493811.html>

- 
- 10 “Sapiens to Enrich Digital Engagement Platform Through Partnership with EasySend.” Sapiens.com. April 23, 2018. <https://www.sapiens.com/news/sapiens-to-enrich-digital-engagement-platform-through-partnership-with-easysend/>
  - 11 Bieck, Christian, Maya Bundt, Patricia Hamilton, Kurt Karl, Michael Schmitt and Pawel Stefanski. “Cyber and beyond: Insurance and risk in a digitally connected world.” IBM Institute for Business Value. June 2016. <http://ibm.biz/cyberinsurance>
  - 12 Ibid.
  - 13 Bieck, Christian, Lynn Kesterson-Townes, Anthony Marshall, Mark McLaughlin and Stefan Riedel. “Friend or foe? Insurtechs and the global insurance industry.” IBM Institute for Business Value. February 2018. <http://ibm.biz/insurtechs>
  - 14 Ibid.
  - 15 Wirth, Silvia. “TK-Safe startet.” Tk.de. <https://www.tk.de/tk/themen/digitale-gesundheit/elektronische-gesundheitsakte-tk-safe/981794> (in German)
  - 16 “Allstate-founded Arity Opens Driving Insights and Predictive Analytics to Developers.” Arity.com. <https://www.arity.com/wp-content/uploads/2018/04/arity-press-kit.zip>
  - 17 D’Silva, David. “How the City of Chicago and Arity will work together to reduce vehicular accidents and ultimately save lives around the world.” Arity.com. June 19, 2018. <https://www.arity.com/move/city-chicago-arity-will-work-together-reduce-vehicular-accidents-ultimately-save-lives-around-world/>

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