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DEAR READERS, it's finally here: our new InsurTech Radar with focus on the German market. Following in the footsteps of our previous reports, published in mid-2016 and at the end of 2017, it offers an in-depth view of the start-ups making their mark in the German insurance industry. Numerous discussions with founders, investors, and insurers have further sharpened our view of the market. Once more, we offer an unbiased, systematic and thorough view of the developments within the German InsurTech scene.

A start-up's life can be quite dynamic at times. So it comes as little surprise that there is considerable movement within the German InsurTech market. Since 2017, the total number of InsurTechs has continued to increase. Currently, the German market is made up of 134 InsurTechs. One aspect we observe is that the start-up boom has leveled off considerably. We see this as a clear indication that the market is maturing. At the same time, it is becoming increasingly evident that some of the InsurTech business models have all the makings of a success story.

When we published the first edition of the InsurTech Radar back in 2016, the market was not covered well by the media and still seen as an insider affair, largely obscured by the hype surrounding FinTech. Today, however, start-ups intending to disrupt the insurance industry are making a name for themselves. The Federal Ministry of Economics and Energy has launched its Digital Hub Initiative, with InsurTech being one of the promoted areas. While Berlin remains Germany's start-up capital, Cologne and Munich have also evolved to become important InsurTech clusters and entry points for founders thanks to de:hubs, InsurLab and InsurTech Hub Munich; Frankfurt continues to catch up, as the TechQuartier team has expanded its general FinTech focus to also include InsurTech.

All the InsurTechs on our Radar are in cooperation mode, fostering an active exchange with the established insurance industry. The members of the founder scene know each other well: some of the "established" InsurTechs are regarded with a degree of awe by their junior peers. The volume of a financing round is currently seen as the core measure for success. Whether or not this is appropriate, remains to be seen.

The sheer number of initiatives, events, conferences and influencer rankings in the InsurTech arena has increased to such a degree that it can be difficult to keep track of things. InsurTech has made it into the conference mainstream.

Have InsurTechs themselves already become part of the establishment? Have the "young guns" who sought to disrupt the insurance industry already settled? We don't think so. On the contrary: we continue to see exciting developments.

Stay on top of things, and continue navigating with our Radar!

Sincerely,



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MANAGEMENT SUMMARY

TRENDS and CHANGES

- The number of InsurTechs continues to grow, but the start-up boom is starting to level off, due to exits, market withdrawals, and pivots
- Neocarriers are on the rise, while the race between full stack carriers and managing general agents (MGA) is anything but decided
- Distribution platforms are gaining market power and are well on their way to becoming essential to the system
- So far, only one international player Lemonade has entered the German market, while German start-ups only rarely attempt to expand abroad
- The segments "Proposition", "Distribution" and "Operations" of our Radar have become more evenly balanced, although some of the business model categories remain thinly populated
- The InsurTech industry is in cooperation mode across the board
- We see successful scale-ups in the market, where business models have gained traction
- International capital serves as a growth driver, resulting in a significant improvement in the financing conditions for German InsurTechs
- Alternative forms of financing remain virtually unused. Initial coin offerings (ICOs) have all but disappeared, and it remains to be seen if financing via security token offerings (STOs) offers any potential

MANAGEMENT SUMMARY

CONCLUSION and OUTLOOK

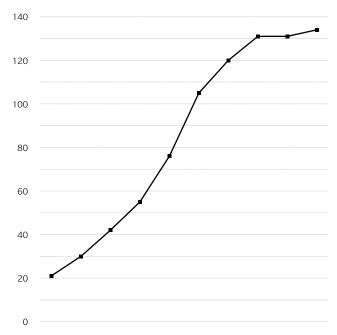
- The InsurTech industry is maturing and is tackling relevant issues
- "Blitzscaling" extreme but subsidized growth models have yet to prove whether they can become sustainable success stories
- Insurers need to reinvent their sales models, and InsurTechs will provide support
- Neocarriers are enjoying success, not least by offering innovative digital solutions
- The market success of the "Financial Partner" model is becoming more and more evident for real, this time
- Underwriting start-ups will come
- Start-ups in the area of corporate insurance remain the exception
- The next two or three years could give rise to the very first German InsurTech unicorn

We have been watching the InsurTech scene closely for more than three years now. Many changes appeared on our radar. This chapter summarizes the most significant developments.

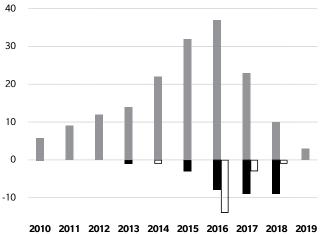
■ START-UP BOOM IS LEVELING OFF, EXITS AND

MARKET WITHDRAWALS ARE ON THE RISE Not all business models have yielded successful results after implementation. Other start-ups – especially distributing plays – have suffered badly under the intense competition. Since the last edition of the InsurTech Radar, a total of 30 InsurTechs have become inactive or insolvent, while 16 start-ups decided to pivot, moving their core business model out of the insurance arena. In addition, there have been 2 exits since 2017. The largest and by far most successful exit was the acquisition of industrial IoT start-up relayr by Munich Re in 2018. 1Blick, meanwhile, was acquired by Hypoport Group, a FinTech unicorn in its own right.

All in all, 134 InsurTechs are active in the German market as of mid-2019. The growth rate has declined significantly, and the start-up boom has leveled off (Exhibits 1 and 2).



2010 2011 2012 2013 2014 2015 2016 2017 2018 2019Number of InsurTechs in the German market (cumulative)



Incorporations and departures of InsurTechs in Germany

■ Founded ■ Inactive □ Pivot out & exit

■ NEOCARRIERS ARE ON THE RISE, WHILE THE RACE BETWEEN FULL STACK CARRIERS AND MANAGING GENERAL AGENTS (MGA) IS ANYTHING BUT DECIDED

Back in 2017, we had already noticed that digital insurers were trending. Since then, a host of further so-called neocarriers have been established, many of which are subsidiaries of large insurers.

At the same time, some InsurTechs have increased their depth of value added becoming managing general agents (MGA), often seen as "light versions" of a full-stack insurer. This, too, is a trend that has been playing out for quite some time.

From a customer's point of view, it rarely matters whether an InsurTech is a fully-fledged carrier with its own (BaFin) license or "only" a managing general agent with a comprehensive service concept. So the race is still open—as long as primary insurers are willing to carry the risk of MGAs on their balance sheet. For standardized products this is currently not a problem at all. But the more innovative the products, the more likely it is that licensed neocarriers will take the lead. As we expect the number of digital product innovations to increase significantly over the next few years, MGAs might be facing tougher times.

■ DISTRIBUTION PLATFORMS ARE GAINING MARKET POWER AND ARE WELL ON THEIR WAY TO BECOMING

ESSENTIAL TO THE SYSTEM A development in the area of distribution that up until now has failed to garner a lot of attention is the emergence of distribution platforms. Such solutions connect different players involved in the sales process and do not necessarily target the end customer. As they have no need to advertise their brand to end customers, many of them are less well-known. One thing they have in common is the fact that in their respective areas, they are well on their way to becoming essential to the system, moving towards an oligopoly under cover. However, not only InsurTechs want to tackle this area: The major broker software vendors such as Acturis and Hypoport are trying to make their insurance broker management software cloud-ready and to supplement them with digital quote-to-bind journeys, rating engines, and other value-added services. In addition, they are already well known in the broker market and enjoy excellent business relationships with insurers. It will be anything but easy to trump this head start with superior technology.

One thing is certain: In the future, efficiency reasons will compel insurers to be much more reluctant to invest in point-to-point integration of individual brokers or other distributors more generally. Instead, this function will increasingly be assumed by distribution platforms. So it is the insurers themselves who by doing so will drive the relevance and possibly a higher degree of concentration in the distribution of insurance products. This could lead to the emergence of players with considerable market power, causing additional sales costs or even influencing product design. And finally, it is very possible that platforms may start to converge with pools, increasing their grip on the distribution space even further. It comes as no surprise that incumbents are launching first initiatives to counter this trend as the (re-)launch of VHV's "Mein MVP" as a for-free digital offer for brokers.

■ SEGMENTS OF THE RADAR MORE EVENLY BALANCED, BUT SOME CATEGORIES REMAIN THINLY POPULATED

Compared to 2017, the three segments "Proposition", "Distribution" and "Operations" of our Radar have become much more evenly balanced. The number of InsurTechs in the Radar's "Proposition" segment has increased by roughly 50 percent so that this segment now accounts for 29 percent of all start-ups. Business models in the "Operations" segment have also posted a slight increase.

Models in the "Distribution" segment, on the other hand, didn't fare quite as well. Their number has decreased slightly so that the segment now represents only 33 percent of all active InsurTechs. Considering that in the first Radar, published in 2016, almost two thirds of all InsurTechs were part of this segment, the landscape has clearly (and not unpredictably) changed over time.

The promising categories "Neocarriers – Digital Product Innovation", "From Insured to Protected", "Life Digitizers", "Proposition/Underwriting" and "Balance Sheet and Financial Investment Management" are all quite sparsely populated. Due to the substantial economic potential of these categories (perhaps with the exception of the "Life Digitizers"), however, we expect this to change in the future.

■ ENTRIES INTO THE GERMAN MARKET AND EXPANSIONS ABROAD CONTINUE TO BE RARE A wave

of market entries by InsurTechs headquartered in other countries has yet to be observed in Germany. Insurance markets are complex. Language, market structure, regulations, competitive environment, and customer preferences tend to differ significantly from country to country. The presumably easy roll-out to another country will very often end up as a redo from scratch endeavor.

However, the growing presence of foreign InsurTechs at German industry events and the increasing number of exploratory talks with insurers indicated that a first major market entry by a large, internationally known InsurTech was not far away. And indeed, in June 2019 Lemonade entered the German market with the help of Axa as a reinsurer. The fierce competition on the German market will make it anything but easy for them.

Are German InsurTechs pursuing an international expansion course? The clear answer is: no. Almost all InsurTechs in Germany remain focused on the domestic market – or have business models which are difficult to transfer to other insurance markets. The only German InsurTech currently operating on a truly international level is simplesurance. From the group of first generation insurance start-ups founded in the 1970s and 80s – we call them "pre- InsurTechs" some managed to expand internationally. Apart from these, however, very few insurance start-ups have so far ventured into other European markets (e.g. ACTINEO, KASKO, wefox) or publicly announced their intentions (Getsafe, Gewerbeversicherung24 under its international brand "Thinksurance"). Unsurprisingly, we have categorized these InsurTechs as scale-ups.

■ CONFRONTATION VS. COOPERATION – WHATEVER

HAPPENED TO THAT? From today's vantage point, the question of whether an InsurTech would pursue a course of cooperation or confrontation vis-à-vis the established insurance industry seems downright grotesque. The occasional initial hostilities and belligerent declarations of war have given way to a widespread willingness to cooperate – with a very few exceptions such as Coya. However, we expect these exceptions to enter a more cooperative mode as well.

InsurTechs have long realized that within the complex insurance landscape it is difficult to establish a successful business model without any distribution partner, product provider or risk carrier at all. While these rapprochement processes may seem like an endless exercise through the eyes of a founder and quite frequently include an asymmetric transfer of know-how to the insurers, they are nevertheless tolerated. Over the past years, primary insurers and reinsurers have entered into an active in-depth dialog with InsurTechs. As a result, most insurers are now more systematic in their dealings with InsurTechs and have often developed a clear view as to whom they would like to cooperate with, as well as where and how. Reinsurers, in particular, are very active on the global scene, both as risk partners and investors.

■ SUCCESSFUL SCALE-UPS AND WAITING FOR THE

FIRST UNICORN Meanwhile, several start-ups have emerged whose business models are now – in some cases only after a few adjustments and pivots – gaining traction. They demonstrate above average growth, and in some cases, they have already reached quite an impressive size. They are a driving force behind the market developments in their areas of business, without necessarily being featured on stage at every InsurTech conference.

In the German market, we currently count 20 of these scale-ups: ACTINEO, Adam Riese, CLARK, Coya, Deutsche Familienversicherung, ELEMENT, Finanzchef24, FINLEX, Friendsurance, FRIDAY, Getsafe, Gewerbeversicherung24/ Thinksurance, Lemonade, Neodigital, nexible, ONE, simplesurance, sum.cumo, wefox, and xbAV.

At its core, the success of these InsurTechs is rooted in strategic alliances with established insurers, sales organizations and – increasingly – other InsurTechs. Part of the scale-up group consists of InsurTech start-ups launched by established insurers for which slightly different rules apply. Some of the scale-ups, such as Coya and ELEMENT, have historically focused mainly on the development of their platform. We count them as scale-ups because of their accumulated funding received. They entered the growth phase only fairly recently and still have to prove sustainable market success.

However, a quick look at the developments in other industries with a more advanced degree of digitization shows: being a scale-up alone is not enough in its own right to guarantee sustained market success. It is only a first step – albeit an important one. In the long run, growth needs to be underpinned by a sustainable profit model. If not, the development might reach a sudden end when the next funding round fails to materialize.

Scale-ups that grow via "Blitzcaling" – by this, we mean extreme but subsidized growth using investor funding – can quickly become systemically relevant and enjoy great success, as the example of Uber shows. However, it is a risky bet – one that some of the German InsurTechs have also chosen to take. Since this bet does not always work out (case in point: Groupon), it is important to keep a close eye on developments.

Nevertheless, the current scale-ups might also include the first German InsurTech unicorn that everybody has been waiting for, ever since N26 was the first German FinTech start-up to make the jump into the ultimate valuation league.

■ INTERNATIONAL MONEY DRIVING GROWTH Our

2017 survey among InsurTech founders showed that the financing options available in Germany were considered to be significantly worse than in the UK or the US. Since then, things have changed considerably. ELEMENT kicked off this development with its 29 million of euros Series A financing round concluded at the end of 2018. wefox followed in 2019 with a financing round of 110 million of euros, which is particularly noteworthy for two reasons: For one, it shows that valuations of several hundred million euros are also achievable in the German InsurTech scene. A few years ago, this would have been unthinkable. In addition, the round was carried out mostly by foreign investors – as had already been the case with the last two funding rounds completed by simplesurance in 2018. It is noteworthy that in Q1 2019 wefox and FRIDAY made it into the top five of global InsurTech funding rounds.

Investors with close ties to the industry, such as the Ping An Global Voyager Fund, Rakuten or Softbank, have access to much deeper financial resources than German investors, thereby closing a financing gap which might have previously inhibited further growth. The traditional venture capital scene is also catching up, as the example of Accel Partners shows. Accel Partners recently announced the launch of a new 500 million euros venture capital fund that will also invest in Fin- and InsurTech start-ups in Germany. Berlin based Rocket Internet also announced to include InsurTech into their investment focus.

In other words: International investors have become an integral part of the financing rounds of German InsurTechs. We expect this trend to continue.

■ ICOs REMAIN IRRELEVANT FOR FINANCING, STOS READY FOR TAKE-OFF Initial coin offerings (ICOs) continue

to be irrelevant to the financing of InsurTechs. This is in line with the general trend in the markets. In 2018, Etherisc launched the first ICO of a German InsurTech. But since Etherisc's financing round came at a time when the general ICO hype had already subsided, while at the same time several cases of fraud came to light, it probably fell short of the volume originally planned. But there seems to be an alternative emerging in the crypto landscape: security token offerings (STO). STOs are more similar to traditional securities, which should increase their acceptance by both investors and stock exchange regulators. In 2019, Berlinbased start-up Bitbond issued virtual bonds as part of an STO. It remains to be seen whether this can also develop into a model for InsurTech financing. So far, the larger InsurTechs seem very reluctant with regard to both ICOs and STOs. We do not expect a run on this type of financing.

REVIEW of **FORECAST** from 2017

Did our predictions for the past 18 months come true?

The following retrospective assessment of the forecasts included in our InsurTech Radar 2017 shows that some of our forecasts from 2017 did not (fully) materialize (yet).

"The business model categories favored in 2017 will – at best – stagnate"

In 2017, digital full stack carriers saw a lot of activity as well as the "Digital Sales Enabling" business model category. 18 months later, we find that our forecast was only halfway correct. 26 of the 28 companies in the area of "Digital Sales Enabling" remain – so stagnation was certainly a good prognosis. The category of neocarriers introduced with the Radar 2019, however, now contains 27 start-ups – including some that started off as managing general agents. Even if part of this increase is due to reclassifications, we were surprised by the force of this development. It was primarily made possible by foreign investors and increased involvement on the part of primary and secondary insurers.

"Who wins the upper hand as a "Financial Partner"? The course will be set in 2018"

Overall, activities around "Financial Partner" models seem to have calmed down a bit. This can certainly be interpreted as an indication that InsurTechs are struggling to achieve sustainable organic growth in this business model category. In the end, we note that so far no financial partner has managed to actually tap into the considerable economic potential of a combined finance and insurance offering.

To date, the winners have been use cases from the area of bancassurance, some of which – very pragmatically – were set up as simple customer hand-over models, generating considerable traffic for the InsurTechs (see CLARK & N26 and 1822 direkt). Nevertheless, the course was not yet set in 2018. It remains to be seen whether the partnership between Deutsche Bank and Friendsurance announced in 2018 or the insurance manager launched in 2019 by R+V for the cooperative banking sector which includes roughly 1.000 independent cooperative banks—also in collaboration with Friendsurance – will prove to be successful. If this were the case, the banks will be the winners.

REVIEW of **FORECAST** from 2017

"Technology-driven business models with a lot of potential are also being ramped up in Germany"

As expected, some new and pivoted InsurTechs have turned to the more sophisticated business models and core areas of the insurance value chain. Initial use cases for machine learning and artificial intelligence have been identified primarily in the areas of "Proposition/Underwriting", "Service and Administration" and "Claims". So this part of the forecast has come true.

The concept of blockchain technology on the other hand never quite took off – as is the case in many other sectors as well. While several pilot projects have been implemented, the general hype seems to have fizzled out.

"Lack of growth financing is becoming a problem"

Contrary to our prediction, the financing options available to InsurTechs have improved significantly since 2017. International investors are no longer strangers to the funding rounds of German InsurTechs. At the same time, primary insurers and reinsurers have also increased their exposure. And even financial investors without an insurance track record are starting to show increased interest in InsurTech, thereby expanding the financing options available. Overall, it has become easier to organize even large-scale follow-up funding rounds in Germany.

"Primary insurers willing to provide capital will be disappointed"

Here, developments are progressing more slowly than predicted. So far, the InsurTechs that have discontinued their activities had received comparatively little funding. None of these InsurTechs have caused major damage to the balance sheets of the primary insurers' investment vehicles as of yet. To a certain degree, this is also because failed business models are often continued, e.g. in the hope of maybe finding another investor after all or of leading the previously created assets to profitability in a specific niche. In short: there are certain InsurTechs that are simply "vegetating". Based on our market assessments, we currently see at least 8 of these "zombies" in Germany. Among them are also a few with fairly significant investments - and writing them off will no doubt be painful. Nevertheless, we are changing our mind on this issue: It will probably be a while before unavoidable failures impact insurers. Nevertheless, such events remain highly likely, as some insurers continue to have open pockets and pressure to invest, increasing the probability of bad investments.

MARKET POTENTIAL and CHANCES OF SUCCESS

The **first core component** of our work, our global **InsurTech database**, has grown to roughly **2,400 entries**. In considering companies for our database, we apply a fairly narrow definition of "InsurTech".

There are many adjacent digital areas, such as FinTech in financial services, RegTech in regulatory affairs and compliance, LegalTech related to the digitization of legal activities, or also the entire universe surrounding the digitization of industries with relevant exposure to insurance such as the building and construction (PropTech/ConTech) or the health sector (HealthTech). We only categorize start-ups as InsurTechs to be included in our database, if insurance is an integral part of their business model and not just a monetization game.

The **second core element** of our Radar, a **consistent** framework which segments the market into business model categories has been further enhanced and refined. In the "Proposition" segment, we added two new categories for "Neocarriers", based on either a digital process or a digital product innovation. In the "Distribution" segment, we introduced "Distribution Platform" as a digital intermediary business model, which transfer the platform idea which has already been tried and tested in other sectors (such as E-Commerce or tourism) to the insurance industry. The four business model categories "Low Cost", "Risk Partner", "D2C (Digital to Consumer)" and "Affiliate Integration" no longer reflected the observed developments or proved to be not differentiating enough and were therefore discontinued. Overall, the number of categories thereby decreased from 19 to 18. A detailed description of the business model categories can be found in **Appendix 1**.

In addition, we **classified the activity levels of the start-ups** in our database. We now see a growing number of InsurTechs that have discontinued their operations and are, therefore **"Inactive"**, that have been sold (**"Exit"**) or that have shifted the focus of their activities from the insurance industry to other sectors (**"Pivot Out"**). In the event of an exit, our Radar includes companies that continue to operate under their own brand; if however, a company merges with or is absorbed by another, the InsurTech disappears from our Radar

Apart from this, we now have not only **start-ups**, but also **scale-ups**, which have become relevant to the market, as well as "**zombies**" – companies that formally continue to exist, but in our eyes no longer have any hope of real success.

As in previous editions, the Radar 2019 shows and assesses the **level of activity** observed in the different **business model categories** along the value chain in Germany, before evaluating the models on the basis of their **strategic potential** (see box: The Basis of our Evaluation). Further details on the evaluation methodology can be found in **Appendix 2.** We draw our conclusions by comparing the current level of activity in each category with its strategic potential.

On the following pages, we will present the business model categories, the players and our market assessments for each of the three segments of the InsurTech Radar.

The Basis of our Evaluation

ACTIVITY LEVEL:

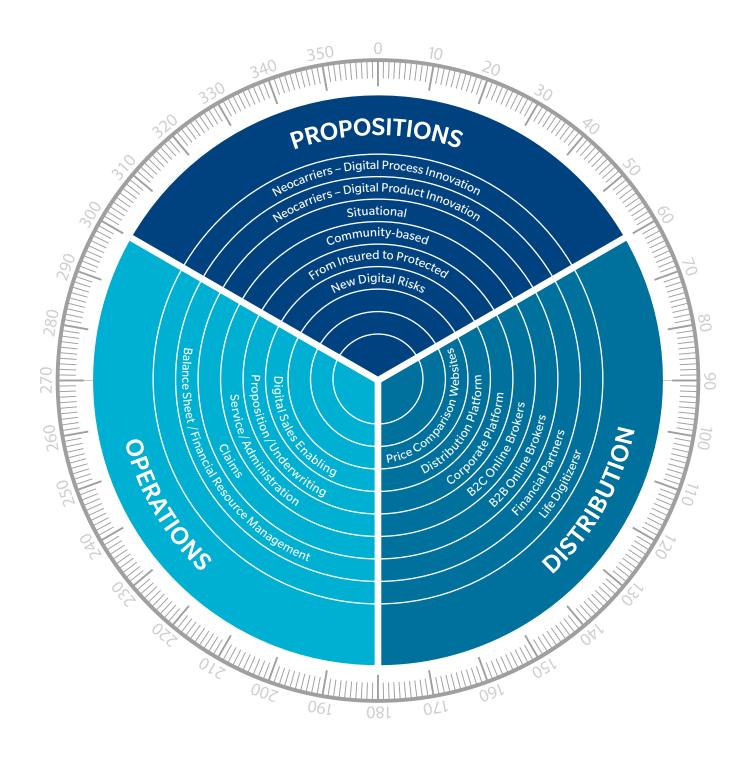
In terms of activity, the market assessment focuses on the following issues:

- What is the current status in each business model category
- What developments can be observed?
- Is it possible to derive implications for Germany from international developments within the InsurTech sector

STRATEGIC POTENTIAL:

A business model category's strategic potential is determined by its market potential (premium pools and depth of value-creation) and its chances of success (customer needs and entry barriers).

MARKET POTENTIAL and CHANCES OF SUCCESS



DIGITAL INSURANCE PROPOSITIONS



InsurTechs offering new insurance propositions through digital means have continued to increase their activities over the past 18 months. With 39 InsurTechs (approx. 29 percent of the total number), "Proposition" remains the smallest segment – even though after deciding to discontinue the "Digital to Consumer (D2C)" category in the "Distribution" segment, we re-allocated some of these InsurTechs to the "Proposition" segment.

This segment also underwent the most comprehensive internal restructuring. While we continue to see six business model categories, two of them differ significantly from the ones in the previous edition of the Radar. Further details can be found in Appendix 1.

1 NEOCARRIERS - DIGITAL PROCESS INNOVATION

"We offer a digital and state-of-the-art interpretation of tried and tested insurance products."

With 27 start-ups, "Neocarriers - Digital Process Innovation" is the largest category in the "Proposition" segment in 2019. It includes carriers holding their own BaFin (the German Federal Supervisory Authority) license, InsurTechs acting as managing general agents (MGA), as well as digital sales wrappers for existing risk carriers. All have established fully digital processes including quote-to-bind - this is where the innovation lies. Some of them have also created the technological foundation for micro modular insurance products. They all, however, offer "only" traditional insurance products, in some cases with a modern interpretation and adapted to a younger target audience. This is also the category where you will find some of the "pre-InsurTechs" such as HUK24 or R+V 24, created around the turn of the millennium during the wave of dot-com companies. They prove that process innovation through the digitization of sales, service and operational processes can bring forth companies that are successful in the long term. Not surprisingly, most scale-ups in the "Proposition" segment also fall into this category. Primary insurers seem to believe in this trend as well. Some of them have started their own captive Neocarriers.

The majority of InsurTechs in this business model category follows a hybrid sales approach, i.e. in addition to established sales channels, customers can also buy insurance cover directly via the website (exception: ELEMENT follows a pure B2B2C approach). However, the scale-ups (Adam Riese, Coya, Deutsche Familien-versicherung, ELEMENT, FRIDAY, Getsafe, Lemonade, Neodigital, nexible, ONE) achieve their growth primarily through close cooperation with established insurance distribution channels or through a business model geared towards price comparison. Both are, incidentally, the reason why the focus is on process innovation rather than product innovation. Established distribution channels expect - and in some cases even require - comparability with the product landscape offered by the established insurance industry. We consider the market potential in this category to be high – but the same also applies to the fierceness of the competition.

2 NEOCARRIERS - DIGITAL PRODUCT INNOVATION

"We are your digital insurer, using digitization to offer innovative products."

The second category of neocarriers brings innovative solutions to market with propositions using new technologies such as the Internet of Things (IoT) at its heart. Similar to models focusing on process innovations, business is handled through fully digital processes. In Germany, these neocarriers have so far limited their activities to telematics solutions and parametric insurance (e.g. EMIL). The products offered by Fridays (telematics) and ONE (geolocation-based international travel insurance) are borderline cases. From the customer's point of view, this is a product innovation. But in essence, this is still more of a process innovation, as the products' technology/IoT share is still low (both are therefore still classified as "process innovation"). Within this business model category, there is certainly plenty of room for further innovation. The Internet of Things can be used not only in private or commercial vehicles but also at home, in the wellcare sector or in corporate insurance (Industry 4.0). This is certainly a category in which we expect to see a lot of movement in the coming years. We also expect neocarriers with a process focus to continue their development and move into this business model category eventually.

DIGITAL INSURANCE PROPOSITIONS



3 .SITUATIONAL

"We provide instantaneous short-term cover to meet your current needs."

Since the publication of our first InsurTech Radar in 2016, we have been skeptical as to whether situational solutions would – as stand-alone offerings – find success in the market. From our point of view, neither the market potential nor the chances of success seemed promising. The developments seem to confirm this assessment: In 2019, we have 4 active start-ups, 3 that have become inactive and no scale-up in sight. The pivot performed by Trov out of this category, once the poster boy InsurTech in this category, shows how **difficult** things are for situational solutions. Today, Trov offers its technology to other market participants as a white-label solution, placing it squarely in the "Digital Sales Enabling" category. We are curious to see whether the next few years will hold surprises in this area.

4 COMMUNITY-BASED

"We use community mechanisms to lower the cost of sales or risk."

We had also always been quite bearish about community-based business models. While none of the start-ups have become inactive, there are several (such as Community Life or Haftpflichthelden) that have pivoted away from this category to join the neocarriers, leaving **only 2 smaller start-ups** behind in this group. Is this also a confirmation of our assessment of the market? At any rate, a similar trend can be observed on an international level, where some spectacular insolvency cases (e.g. the one of the once hyped Guevara) have occurred already.

5 FROM INSURED TO PROTECTED

"We not only insure you but also protect you."

This business model promises security and protection – and not just a payment in the event of damage. We had always assumed that such a positioning would offer considerable potential. But this view does not seem to be shared by German founders. Admittedly, it is anything but easy to place yourself in your customers' minds with a **completely novel proposition** offering piece of mind. So it is understandable that there have been a few failures. Nevertheless, it does continue to surprise us that the concept is **not all too well received** in Germany. We believe that the potential is certainly there. Our previous Radar 2017 already included numerous successful international examples. Are they also going to be adopted in Germany?

6 NEW DIGITAL RISKS

"We protect you from the pitfalls of digitization."

We like the idea of covering new risks arising from digital technologies or digitally enabled business models. From our point of view, both the market potential and the chances of success are considerable. Regrettably, this **concept has found few followers in Germany** so far. The InsurTech activities focus mainly on cyber risks – an area, where e.g. Cyberdirekt is active. There is no question that cyber risks constitute a very large, growing market with an extremely low policy penetration. It is no wonder then that all market participants have high hopes.

But there are also other new digital risks: InsurNinja, for example, is a start-up focused on gaming and eSports, which even on an international level can be considered as innovative. But what about the gig economy, the sharing, and platform economy or new risks related to Industry 4.0, connected supply chains or distributed ledgers? In Germany, unfortunately, there is still no sign of offerings for these areas.

DIGITAL INSURANCE PROPOSITIONS

CONCLUSION The increased activity in the "Proposition" segment of the Radar almost exclusively stems from the activities in one of the business model categories: neocarriers exploiting the digitization of sales, service or operational processes to position themselves in the marketplace (Neocarriers – Digital Process Innovation) and pursuing a business model that has already been proven to be successful.

The "Situational" and "Community-based" business models, which we had always been bearish about, indeed seem to have trouble getting market traction. Not much of the original hype remains, and things have become quiet in the media as well. It has been quite some time since anyone has reported anything substantial about peer-to-peer insurance or situational coverage, such as the "Jeckenschutz" (special situational coverage for carnival days) which at some point had made waves in the press.

We keep the remaining three business models ("Neocarriers – Digital Product Innovation", "From Insured to Protected" and "New Digital Risks") in high regard and continue to see considerable potential – and plenty of room for new innovative start-up activity in Germany. However, all three categories offer solutions which end consumers might not be familiar with. Establishing a brand and a new positioning in the market may, therefore, require a certain degree of "education", which is certainly not going to be cheap.

	1	2	3	4	5	6
	NEOCARRIERS – DIGITAL PROCESS INNOVATION	NEOCARRIERS – DIGITAL PRODUCT INNOVATION	SITUATIONAL	COMMUNITY- BASED	FROM INSURED TO PROTECTED	NEW DIGITAL RISKS
SCALE-UPS	· Adam Riese · Coya · Deutsche Familienversicherung · ELEMENT · FRIDAY · Getsafe · Lemonade · Neodigital · nexible · ONE					
START-UPS	 andSafe AstraDirect Versicherung Balunos Community Life Deutsche Kautionskasse fairr.de FIBUR flypper FreeYou Getsurance grün versichert Haftpflicht Helden Karlsson Mailo myPension ottonova Vantik (fka BRIX, fka lifeXycle) 	· EMIL · Wetterheld	- assona - hepster - INZMO - Online Versicherung.de	- crowdheroes - fairsichern	· Perseus	· COGITANDA Dataprotect · CyberDirekt · InsurNinja
PRE-INSURTECHS (Examples)	Bavaria DirektHUK 24R+V 24Sparkassen Direkt					
ACTIVE	27	2	4	2	1	3
DROP-OUT/INACTIVE	4	N/A	3	N/A	2	N/A
STRATEGIC ASSESMENT						
· Market Potential						
· Chances of Success						
· Total						
ACTIVITY LEVEL						



Of INSURANCE PRODUCTS



In this segment of the value chain, we look at InsurTechs aiming to redefine insurance sales in the digital world.

We added the new business model category "Distribution Platform" to this segment, in order to reflect ongoing changes in the marketplace. The "D2C (Direct to Consumer)" category, on the other hand, was discontinued since it did not prove to be differentiating enough. In total, this segment, therefore, includes seven business model categories.

In 2016, "Distribution" was the largest InsurTech segment in Germany by a far cry. Almost two thirds of the start-ups were focused on this area. At that time, quite a few founders, having gained previous experienced in e-commerce, were establishing sales-oriented insurance start-ups. While the number of start-ups in this segment was still growing considerably in 2017, its importance in comparison to the "Proposition" and "Operations" segments had already diminished significantly, with its overall share declining to 41 percent. In mid-2019, the absolute number or sales-oriented InsurTechs actually declined, allowing the "Operations" segments to easily overtake it. This development is not surprising – it is roughly in line with he trend we see on an international level. Today, only 33 percent of German InsurTechs are active in the "Distribution" segment.

1 PRICE COMPARISON WEBSITES (PCW)

"We find the cheapest insurance for you."

The InsurTech **population** in the Price Comparison Websites (PCW) segment has decreased slightly, which in light of the fierce competition is not surprising. Even if there is occasional resistance – as the examples of Bundesverband Deutscher Versicherungskaufleute or HUK24 show – large PCWs with a generalist orientation such as Check24 and Verivox continue to dominate. But things might just get interesting: FinLeap recently announced its intentions to establish a new generalist PCW in Germany with the support of Ping An. Such a solution would become a direct competitor to Check24. The required budget for such an undertaking is estimated to be well above 100 million euros. We, therefore, stick with our assessment that despite its great potential this business model category is a difficult one for InsurTechs – unless they can build on a massive investor funding.



2 DISTRIBUTION PLATFORM

"We are the intermediary connecting different parties involved in the sales process."

InsurTechs in the newly established "Distribution Platform" business model category create a digital infrastructure to support the long-term interaction between different players involved in the sales process – including the insurers themselves. We find that in many cases companies that previously supplied sales technology (hence, previously grouped into the "Digital Sales Enabling" business model category) continued their evolution to assume such a new intermediary role. All 7 InsurTechs in this category use their proprietary software for sales purposes, in some cases offering white-label solutions to integrate partners in the market (from insurers to pools, and from brokers to end customers) into their platform.

This category is **home to many of the scale-ups** we identified (FINLEX, simplesurance, wefox, and Gewerbeversicherung24/ Thinksurance). Insurers have also recognized that Distribution Platforms offer considerable process enhancements, e.g. through digital policy issuance and underwriting, interfaces to third-party systems, autorating, rate comparisons, and e-trading, etc. Accordingly, these platforms enjoy active insurer support, allowing them to become more and more essential to the system and offering immense long-term market potential. However, a fair share of the efficiency gains realized by insurers stems from the fact that they partner only with a limited number of InsurTechs in this business model category. This creates effective barriers to newly founded companies and pivot attempts of other InsurTechs. And as some of the pre-InsurTechs on the market, Acturis, and Hypoport are very well aware of the potential offered by this business model. They have already grown to become formidable competitors. Broker pools such as blau direkt are also fighting for a position. An interesting race is going on behind the scenes. Its outcome is uncertain, but consolidation seems likely.

3 CORPORATE PLATFORM

"We deliver insurance to employees."

We continue to see **considerable potential** for digital distribution solutions related to company pension plans and employee benefits business. In other markets abroad (e.g. in the US or Singapore), this sales channel has already become very important. In Germany, this business model has not quite been able to establish itself yet, but there is movement in the market. Traditional pension plans and corporate health insurance plans are today beset with such enormous process inefficiencies that digitization is almost unavoidable. The digitization of the broker channel offers a fitting analogy. While in the beginning insurers tended to deploy their own online portals, business is increasingly shifting to corporate platforms these days. When it comes to insuring employees, portals (such as FirmenOnline by Allianz) continue to play an important role. However, new digital players such as xbAV (a scale-up from your point of view) are currently also establishing platform solutions in this area.

HR software vendors have yet to shift their focus to this category. Despite the investment by Allianz X in December 2018, we consider HeavenHR a "Pivot Out" case, as the original focus on insurance coverage is not still tiny. Personio currently seems to be focused on geographic expansion, not on an extension of its solution portfolio and is therefore not included in our Radar. Other more general players trying to automate accounting and admin processes in start-ups and SME are also trigger-shy, even though AXA has invested in one of the players, Zeitgold.



4 B2C ONLINE BROKERS

"We optimize your personal insurance portfolio."

B2C online brokers as a digital alternative to traditional insurance brokers for retail customers continue to enjoy a strong presence in 2019. Despite enormous challenges, especially in terms of customer acquisition costs, we have seen several new start-ups pursuing this business model since 2017. The **number of new start-ups clearly exceeds the number of companies shuttering their operations**. All in all, we count a total of 14 B2C Online Brokers.

It is worth mentioning that the two newly-founded companies Popsure and Wilhelm have little similarity to the typical broad brokerage offerings of the early players in this category. While Popsure specializes in ex-pats as a target group, Wilhelm is the captive online brokerage solution for the cooperative banking sector in Germany. With appropriate integration and promotion of the solution, Wilhelm would thus have an excellent starting point in terms of both reach and cross-selling potential. Lacking integration and promotion, however, it would also struggle to reach a relevant size which is now more likely given the launch of the competing "insurance manager" in the cooperative sector.

With CLARK and Friendsurance, this business model category also brought forward two scale-ups. These companies have been able to greatly accelerate their customer acquisition through sales partnerships, especially in the area of bancassurance, where CLARK, for example, cooperates with N26, DKB and 1822direkt.

Overall, competition remains fierce in this business model category, making us bearish with regard to newly-founded InsurTechs in this area. We expect to see further consolidation over the coming years.

5 B2B ONLINE BROKERS

"We optimize your corporate insurance portfolio."

The importance of the "B2B Online Broker" business model has **diminished since 2017.** Today, only 3 InsurTechs remain active in this area. This means that the population has halved since the last edition of our InsurTech Radar. The most successful start-ups have pivoted to other business models – primarily into "Digital Sales Platforms". In addition, Liimex and Optisure, both of which had set out with ambitious plans, are no longer active. Finanzchef24, on the other hand, has managed to not only defend its position but even achieved substantial growth. Therefore, we consider Finanzchef24 a scale-up.

What are the reasons behind the overall development in this business model category? The market for commercial insurance remains tightly in the hands of established offline brokers, changes are slow, and customer acquisition is expensive. As a reminder: Even in the UK, which is very open to online offerings and has a favorable legal set-up, it took the current market leader Simply Business more than 10 years to achieve its breakthrough. Finanzchef24, on the other hand, has only been on the market since 2013.



6 FINANCIAL PARTNERS

"We optimize your personal finances."

With 6 providers, the "Financial Partner" category has remained **more or less stable since 2017**. Its composition, however, has changed. As Fidor Bank and Rentablo no longer offer insurance coverage, we consider them "Pivot Out"-cases and no longer include them in the Radar. Compaio, meanwhile, has become inactive. Overall, things seem to have calmed down a bit regarding "Financial Partner" InsurTechs such as Moneymeets.

Start-ups acting as digital versions of bancassurance distributors offering financial and insurance products are struggling to compete with established providers. If established companies (banks, in particular) succeed in developing a customer-friendly and technically versatile high performance platforms (or if they acquire such a platform through white-label partnerships with InsurTechs) and are able to transfer their many existing customer relationships to this model, the air will start to get pretty thin for InsurTechs. We continue to stand by this assessment.

7 LIFE DIGITIZERS

"We manage your documents – and offer recommendations upon request."

The "Life Digitizers" business model category has basically experienced a **standstill since 2017**. While we continue to believe in the long-term potential of this approach for insurance sales, start-ups continue to avoid the category, despite significant progress in semantic data recognition through deep learning and other technologies and despite the fact that there are several successful role models abroad.



CONCLUSION As we

had expected, the often limited strategic potential of distribution plays has turned out to be a major hurdle for some of the business models. Unsurprisingly, winning over customers at an economically sustainable cost remains the ultimate bottleneck.

Successful customer acquisition can very well result in very successful InsurTechs, as some of the Distribution Platform companies have proven. It is interesting to note that these models are not oriented towards the end customers. Instead, these platforms focus on "professionals" with a genuine interest in insurance who gladly accept solutions that make their lives noticeably easier. Platform models accounted for almost all of the scale-ups we identified in the "Distribution" segment. Overall, however, we expect the relative importance of the Radar's "Distribution" segment compared to the "Proposition" and "Operations" segments not to increase in the future. This expectation is underpinned by international InsurTech trends.



	() E	2	3	4	5	6	7
	PRICE COMPARISON WEBSITES (PCW)	DISTRIBUTION- PLATFORM	CORPORATE- PLATFORM	B2C-ONLINE- BROKERS	B2B-ONLINE- BROKERS	FINANCIAL- PARTNERS	LIFE- DIGITIZERS
SCALE-UPS		· FINLEX · Gewerbe- versicherung24/ Thinksurance · simplesurance · wefox	·xbAV	· CLARK · Friendsurance	· Finanzchef24		
START-UPS	· autoversicherung.de · Bürgschaft24 · EINFACHSPAREN24 · i-finance · Sachversicherung24 · safe.me	· Covomo · vers.diagnose · Virado	· ePension · eVorsorge · Onnest · Penseo · smart!bAV	· allesmeins · easy insurance · FinanzRitter · fragWILHELM · GoNetto · HelpCheck · Knip · Popsure · TED · Versicherungs-akte · Versicherung-scheck24 · yoursurance	· Finanzchecks · Rabatto	· feelix · Finanzguru/ Dwins · finatra · Moneymeets · prima beraten · treefin	· fileee · Volders
PRE-INSURTECHS (Examples)	· Check24 · Verifox	· Acturis (Assfinet) · Hypoport					
ACTIVE	6	7	6	14	3	6	2
DROP-OUT/INACTIVE	3	N/A	3	8	2	3	3
STRATEGIC ASSESMENT							
· Market Potential							N/A
· Chances of Success			•====				N/A
·Total							N/A
ACTIVITY LEVEL							

DIGITIZATION of **OPERATIONS**



In this segment of the value chain, we look at InsurTechs finding new ways to optimize business processes and methods to create risk-coverage solutions within the insurance industry. The 51 active InsurTechs in this segment account for roughly 38 percent of the German InsurTech landscape.

We have not made any structural changes to this Radar segment and continue to differentiate between five business model categories. However, some InsurTechs have left the Operations category "Digital Sales Enabling" and moved to the Distribution category "Distribution platforms". According to our assessment, their primary purpose was not to provide a service for individual companies within the distribution chain, but rather to connect several parties as a new intermediary – a genuine distribution function. If you look at the very first InsurTechs, you will find successful ones in all business model categories of this segment. In addition, the number of failed companies (9 failures out of 51 active InsurTechs) is lower than in the "Proposition" and "Distribution" segments. All of this shows that operational innovation tends to be warmly embraced by the market.

1 DIGITAL SALES ENABLING

"We digitally enable your sales force."

As in 2017, "Digital Sales Enabling" is the largest category in the Radar's "Operations" segment, featuring a total of 26 start-ups. But life in this category is tough, as the pivots performed by Gewerbeversicherung24 and wefox towards Digital Distribution Platforms illustrate – even if these companies, just like many of the pre-InsurTechs, continue to display characteristics typical of the "Digital Sales Enabling" category. The fact remains that while some insurers are prepared to invest considerable sums to digitize their captive sales channels, none of the other market participants are able or willing to spend large budgets, thereby limiting the market potential for InsurTechs in this business model category. Exceptions include the large sales organizations such as DVAG, which, however, aim to enhance their competitive advantage through technology investments. They are therefore more likely to build-up bespoke solutions than to buy generic systems offered in the market. Platforms avoid this financing problem by creating models that benefit several participants in the distribution process and may be paid for by insurers. The business model applied by Acturis in the UK is a prime example of such an approach. It is very well possible that this trend will continue and interesting market participants will be integrated into such platforms.

DIGITIZATION of **OPERATIONS**



2 PROPOSITION/UNDERWRITING

"We enable new products and new ways in underwriting and pricing."

This category continues to be **neglected by** the overwhelming majority of **German founders**. It doesn't exactly help that with Keysurance one of the technology-driven start-ups featured in the previous edition of the Radar no longer seems to be active. On an international level, players in this category offer new data sources to insurers to enhance their risk assessment, support their pricing methods and enable new products, e.g. related to the Internet of Things. Regrettably, this is not yet the case in Germany. Is this going to change over the next 18 months?

3 SERVICE/ADMINISTRATION

"We empower your operations.""

The question of how to further improve all operational processes is always top of mind for players in the insurance industry. In order to drive digitization and automation, many companies buy software solutions on the market, frequently in combination with customization and integration services. The result: substantial market potential. So it is not surprising that technical services in the area of "Service and Administration" are offered by some of the pre-InsurTechs founded back in the 1970s and 80s, which in the meantime have grown to a respectable size with up to several thousand employees, such as the msg Group. These companies are serious competitors for InsurTech start-ups. Nevertheless, this business model category has become much more popular with founders in recent years (we currently count 13 InsurTechs). In many cases, they expanded a more specific solution for insurance operations or sales into a much broader solution. With sum.cumo, we also see a scale-up following in the footsteps of the pre-InsurTechs, clearly demonstrating that opportunities in this area continue to abound.

4 CLAIMS

"We optimize your claims processing and decision-making."

Successful pre-InsurTechs such as ControlExpert, Eucon or the Innovation Group reveal the market potential of the "Claims" business model category. The scale-up ACTINEO is also pursuing this highly promising avenue. All these examples demonstrate that InsurTechs in this area were able to successfully internationalize their business model. This illustrates the **opportunity set for new InsurTechs** and explains why we are very optimistic about start-ups in this category.

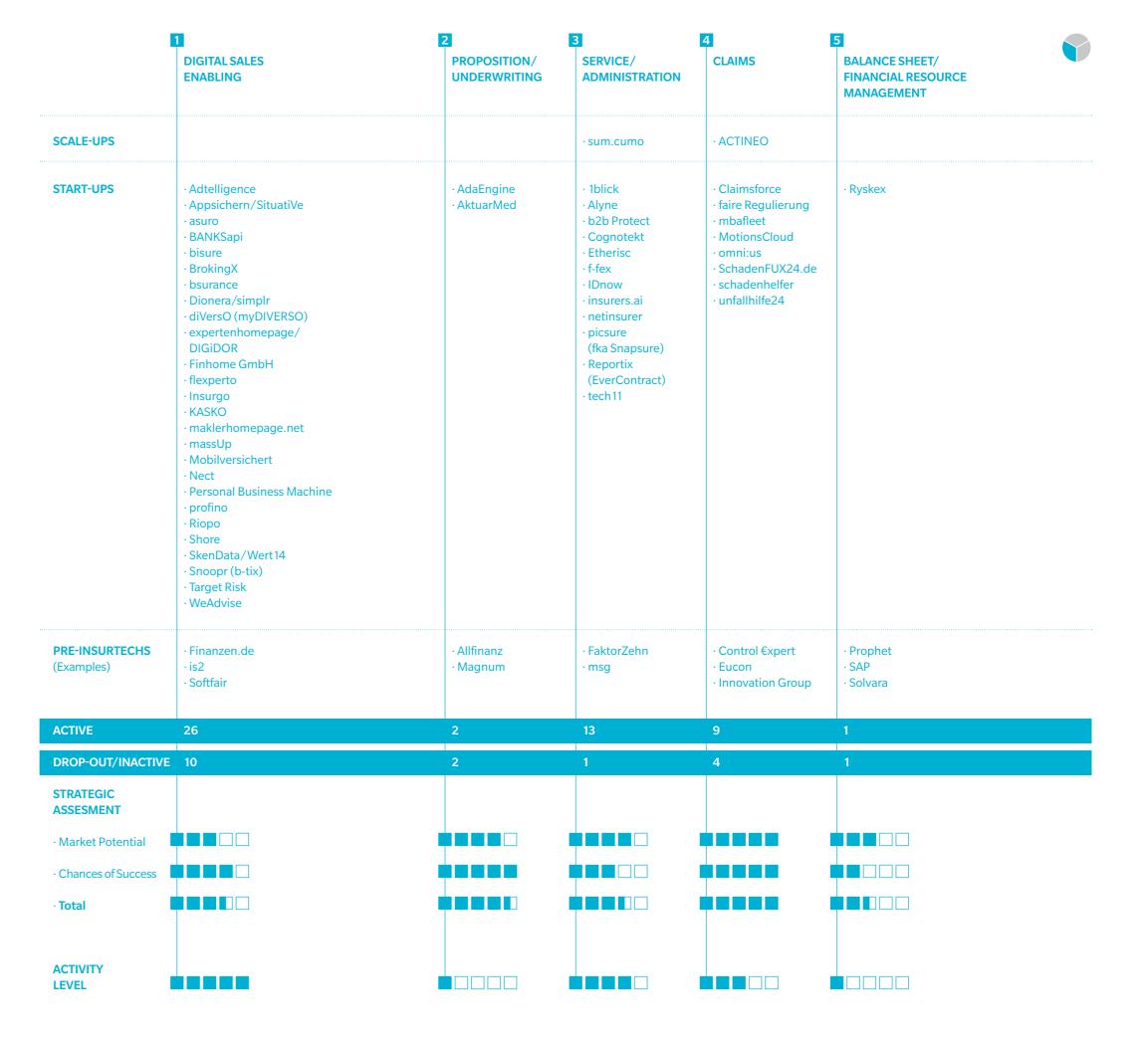
5 BALANCE SHEET/FINANCIAL RESOURCE MANAGEMENT

"We optimize investment decisions and financial processes."

As in recent years, **not much is happening** in this category in Germany in 2019. Why is that? Large software vendors such as SAP are able to exploit cross-industry synergies and apply their financial expertise to the insurance sector. Focused technology vendors can be found in insurancespecific functions, such as actuarial services, and they certainly have international growth potential – as long as they avoid country-specific processes such as regulatory reporting. Technology-driven cost optimization models in capital investments (e.g. by established players like bfinance or XTP) also offer great potential which, unfortunately, goes hand in hand with high entry barriers. Overall, the category continues to offer a green field for various specialists who may be able to not only optimize internal processes but also create new markets for risk capital or risk trading – albeit in a challenging competitive environment.

DIGITIZATION of **OPERATIONS**

CONCLUSION The Radar's "Operations" segment has proven its attractiveness. Unfortunately, we continue to see a strong focus on "Digital Sales Enabling" and very little activity in promising areas such as "Proposition/Underwriting" or "Claims". There remains plenty of potential for new companies with in-depth knowledge of the insurance industry.





CONCLUSION and OUTLOOK

Over the past few years, the InsurTech market has evolved considerably and become more mature. Looking at the current landscape, you get the impression that the majority of InsurTechs are now working on the relevant industry issues. Meanwhile, several promising scale-ups have emerged, most of which – despite their relatively short existence – have become an integral part of the insurance industry. The slowdown of the start-up boom is part of this maturing process. As we see it, some InsurTechs even have disruptive potential. However, any disruption will happen gradually and not with a "big bang", as initially expected. Nevertheless, in retrospect, we will see that the foundation for some of the major structural changes we are heading for will have been laid in 2018 and 2019.

What developments do we expect to see over the next year or two?

■ BLITZSCALING MODELS WILL NEED TO PROVE WHETHER THEY CAN DELIVER SUSTAINABLE SUCCESS

Blitzscaling is a risky bet, as the e-commerce sector has so memorably demonstrated. While a few start-ups were able to become market leaders through investing heavily into growth (e.g. zalando), others were not quite as lucky. If results come in even slightly below expectations, the next funding round might spell disaster. Over the next two or three years, it should become apparent how well Blitzscaling works in the insurance industry.

■ INSURERS WILL NEED TO REINVENT THEIR SALES MODELS. AND INSURTECHS WILL PROVIDE SUPPORT

When it comes to partnerships with InsurTechs, insurers tend to focus too strongly on distribution, i.e. on how to use InsurTechs and digital technologies to sell more traditional products. In some cases, the preferred solution is one that can simply be added on to existing structures. That is simply not enough. In light of evolving customer needs and market structures, the insurance industry will need to completely reinvent its distribution approach. InsurTechs will step-by-step provide support.

■ NEOCARRIERS WILL ENJOY SUCCESS, NOT LEAST BY OFFERING INNOVATIVE DIGITAL SOLUTIONS Neocarriers with digital process innovations will solidify their position. In addition, we expect more genuine digital product innovations beyond telematics. However, we are aware of the fact that these will only be successful if customers and distributors are open to them. Such behavioral changes might well take years to achieve and also require significant investment in "customer education".

CONCLUSION and OUTLOOK

- THE MARKET SUCCESS OF FINANCIAL PARTNERS
 WILL BECOME EVIDENT The popularity of simple
 partnership models in the area of bancassurance will continue
 to grow. However, they only represent a small fraction of
 what a Financial Partner business model might achieve. Over
 the next year or two, we will find out whether a technologydriven version of a bancassurance distributor is able to tap
 into its true potential.
- UNDERWRITING START-UPS WILL COME A look at international developments shows that there are promising new entry routes into underwriting, e.g. the provision of data to simplify the quotation process, the provision of new data sources for risk assessments or basic technologies enabling innovative digital products, e.g. related to the Internet of Things. We will also see some activity related to these areas in Germany.
- START-UPS IN THE AREA OF CORPORATE INSURANCE WILL REMAIN THE EXCEPTION Despite the substantial economic potential, no InsurTechs focused on corporate insurance are in sight. Currently, only FINLEX has a noteworthy presence in this arena. But the use of new technologies might be exactly what the low-margin industrial insurance industry needs. The entry barriers, however, are high. That is why we believe that InsurTechs will continue to avoid this sector.

■ WAITING FOR THE FIRST UNICORN We expect most scale-ups to continue their positive development. As their track records get longer, valuations in upcoming financing rounds will also increase. That is why we are confident that over the next two to three years we will see the first InsurTech unicorn.

There are certainly very innovative InsurTechs in Germany. But the German InsurTech scene must avoid the temptation of resting on its laurels. A glance at our InsurTech Radar 2018 for the French market shows the positive impact targeted Governmental support can have on both the establishment of new companies and the development of the market. Despite getting off to a slow start, France – and in particular Paris – has become a European hotspot for Fin- and InsurTechs, producing a multitude of innovative start-ups. This development is also reflected in the capital invested: While Berlin continues to defend second place after London, Paris has almost caught up. Even if there have been positive changes to the funding environment over the past few years, Germany still needs to offer greater support to technology-driven start-ups.

The InsurTech Radar introduced by **Oliver Wyman** and **Policen Direkt** in 2016 is based on a systematic classification of market activities into **distinct business models**. They follow the three stages of the insurance industry's **value chain: Proposition, Distribution, and Operations**.

In this latest update of the report, we have retained this tried-and-tested principle. As in previous years, however, we have included a few enhancements:

The introduction of two business model categories relating to Neocarriers – one focused on digital process innovations, the other on digital product innovations – constitutes the most important change in the systematic classification of digital business models. In the Radar's "Proposition" segment, we also defined the new business model "Distribution Platform", which acts as an intermediary, bringing together the various players involved in the insurance sales process.

The four categories "Low Cost", "Risk Partner", "D2C (Digital to Consumer)" and "Affiliate Integration", on the other hand, were discontinued. In practice, there were several developments which we were not able to map appropriately, and differentiation issues repeatedly caused problems.

Overall, the number of categories, therefore, decreased from 19 to 18. The business model categories are defined on the following pages.

DIGITAL INSURANCE PROPOSITIONS

Digitization offers opportunities for innovation in the range of services offered by insurers on several levels. For one, well-known products can be sold to customers in new ways – making them simpler, more understandable and cheaper. In addition to this, insurance products can feature new digital capabilities and enhanced value propositions. And finally, digitization creates new risks which require insurance cover.

InsurTechs in the area of digital insurance propositions tend to be structured either as insurers with their own (BaFin [the German Federal Supervisory Authority]) licenses or as managing general agents (MGA). There are also strategic partnerships between InsurTechs and insurance companies, where specific digital propositions are developed without requiring the InsurTech to have the legal status of an insurer or an MGA. The crucial factor for us is whether from a customer's point of view an InsurTech is introducing a new digital proposition on the market – irrespective of its legal form of implementation.

In the area of digital insurance propositions, we have identified six business model categories:

1 NEOCARRIERS - DIGITAL PROCESS INNOVATION

"We offer a digital and state-of-the-art interpretation of tried and tested insurance products."

Neocarriers with digital process innovation focus on the digitization of service provision in order to offer customers significantly enhanced convenience, realize agility benefits and/or exploit cost benefits. All neocarriers with process innovation feature fully digital processes including underwriting and policy issuance. However, they "only" offer traditional insurance products, albeit with the occasional modern interpretation. The design of these products does not require specific characteristics of new digital technologies such as IoT.

The sales process is usually hybrid in nature, i.e. customers are free to choose between established policy distribution channels (e.g. brokers) and online purchases via the websites. This business model category also includes players with a pure B2B2C approach without direct access to end customers.

This business model category includes carriers holding their own insurance license, InsurTechs acting as managing general agents, as well as digital sales solutions for existing risk carriers.

2 NEOCARRIERS - DIGITAL PRODUCT INNOVATION

"We are your digital insurer, using digitization to offer innovative products."

The second category of neocarriers brings innovative solutions to the market which would not be possible without digitization or new technologies such as the Internet of Things (IoT). Similar to models focusing on process innovations, business is handled through fully digital processes. Examples for implementation options include the micro-modular adjustment of coverage or premiums through the use of the IoT, or technology-driven, data-based contract amendments to adapt to changing circumstances (e.g. telematics rates or "connected life" products). In this business model category, full implementation may also result in a risk partner offering customized risk coverage which adapts flexibly to changing risk situations.

3 SITUATIONAL

"We provide instantaneous short-term cover to meet your current needs."

Situational business models offer coverage for temporary risks such as travel abroad, ski excursions or temporary suspensions of the age limit in motor insurance when you let your child borrow the car for the weekend. Dynamic adaptation is controlled either by app or – if possible – through a digital connection to the insured object, such as the vehicle. Situational insurance can cover risks to both persons and property.

4 COMMUNITY-BASED

"We use social community mechanisms to lower distribution the cost of sales or risks."

Community-based approaches use digital technologies to create a specific risk collective, which – based on group dynamics and trust – is expected to suffer fewer damages. In addition, the community concept is also used in sales in various ways: It starts with digital recommendation marketing and ranges from laser-sharp digital targeting of specific interest groups and types of proposals that are tailored precisely to specific niches to peer-topeer approaches.

5 FROM INSURED TO PROTECTED

"We not only insure you but also protect you."

This business model reflects a fundamentally new approach to insurance: Instead of selling insurance products to be a stopgap in the event of damage, the provider here comprehensively addresses the customer's need for protection. In short: the service provider delivers "experienced safety", usually as a bundle of services, software and hardware components, as well as insurance coverage. The pure insurance policy/indemnity insurance takes a back seat, and accordingly, the providers in this category are usually not established insurance companies.

6 NEW DIGITAL RISKS

"We protect you from the pitfalls of digitization."

The more digitization determines our lives, the more we are threatened by the new risks it creates. Cyber risk is undoubtedly the best known among these. New risks also arise from digital business models based on digital innovations such as blockchains, or from models such as the sharing and platform economy, where we interact with people whom we know only through digital channels.

Increasingly, there is also a need for coverage related to products resulting from the combination of technological innovations and digital applications. Examples include autonomous vehicles, drones, computer games or products that make independent decisions via artificial intelligence and thereby trigger certain actions. Finally, digitization is enabling new forms of work: In the gig economy, traditional employee insurance propositions such as occupational pension plans no longer apply, giving rise to a need for innovative solutions.

DISTRIBUTION OF INSURANCE PRODUCTS

Digitization creates new ways to interact with potential customers and sell insurance solutions. In the area of digital insurance distribution, we see seven business model categories:

1 PRICE COMPARISON WEBSITES (PCW)

"We find the cheapest insurance for you.""

"Price Comparison Websites" (PCW) create transparency by comparing the prices and possibly also high-level proposition features of different providers for the desired coverage.

2 DISTRIBUTION PLATFORM

"We are the intermediary connecting different parties involved in the sales process."

Distribution platforms are intermediary business models creating a digital infrastructure for long-term interactions between different players involved in the sales process. The most common solutions are those used by distributors to evaluate and compare insurance products and digitally issue policies. Platforms always offer propositions to various parties, such as insurers, pools, brokers and end customers. Depending on the service provider, these options may be directed at specific target groups to different degrees. An important added value is created when they offer a certain function to all parties involved – such as autorating and rate comparison, allowing insurers to provide their rates only in one place, rather than having to provide and continuously update rating engines of numerous different market participants.

If a platform succeeds in anchoring itself firmly in one (group) of the parties (e.g. insurers), this creates a market position that can be monetized vis-à-vis the other parties. A typical example for such a platform is the Global Distribution System (GDS) in the travel industry, allowing online as well as offline travel agencies to access all providers of travel products and to compare their offers against a fee paid not by the distributor, but by the provider. Newer examples include AirBnB and Uber, even if these have yet to prove their long-term economic viability.

3 CORPORATE PLATFORM

"We deliver insurance to employees."

"Corporate Platforms" are widely used on an international level. They are considered a promising distribution model. On such a "Corporate Platform", employees are offered discounts and other benefits, including insurance and retirement products. In some cases, the employer may also participate directly in premium and contribution payments. For employers, the platforms usually offer HR and/or accounting software or solutions, ensuring efficient processes by integrating with existing corporate systems. InsurTechs usually contribute value through five levers: they increase the participation rate, sell additional employee-financed voluntary covers, establish group rates for private lifestyle policies and benefits, offer additional benefits, e.g. in corporate health management, and digitize the traditionally complex settlement processes for workplace pension plans. Employees may furthermore also receive benefits such as discounts on sports and leisure activities. This business model is particularly popular in the US and Asia.

4 B2C ONLINE BROKERS

"We optimize your personal insurance portfolio."

"B2C Online Brokers" are the digital version of a classic insurance broker for retail customers. In addition to a digital insurance portfolio, they offer a needs analysis as well as an optimization of the existing insurance portfolio, frequently on the basis of machine learning or artificial intelligence. Legally, they might not come with a broker license but act e.g., as multi-agents.

5 B2B ONLINE BROKERS

"We optimize your corporate insurance portfolio."

Similar to "B2C Online Brokers", "B2B Online Brokers" are the digital version of an insurance broker with a focus on commercial and corporate clients. Service elements usually include a needs analysis based on autorating engines, digital quote-to-bind, the digitalization of the previously paper based insurance portfolio and – for more complex issues – tendering platforms. Bionic solutions (a combination of man and machine) are used where purely digital approaches cannot be implemented.

6 FINANCIAL PARTNER

"We optimize your personal finances."

"Financial Partners" are digital versions of advisors catering to both financial and insurance needs. A truly independent 360-degree financial advisory service is labor-intensive and therefore expensive. Today, it is therefore almost exclusively offered by private banks catering only to (ultra) high net worth individuals. The use of digital technology allows for costefficient and effective processes so that high-quality advisory services can now also be made available to a broader audience. A positive side-effect: in certain life situations, insurance needs often change hand in hand with financial requirements, be it when starting a career, upon the birth of a child, or when building a house or buying a car. Financial partners try to optimize all financial aspects of these life events holistically. As a "life coach", they can furthermore derive dynamic recommendations, for example, by analyzing spending behaviors, managing a broader portfolio of non-insurance contractual obligations (such as energy supply or telecommunications contracts) or helping to achieve defined savings targets. The bancassurance cooperation model, which currently enjoys considerable popularity, only covers a fraction of what a financial partner is able to offer in this respect.

7 LIFE DIGITIZER

"We manage your documents – and offer recommendations upon request."

Essentially, these models are offers to digitize documents from all areas of life and to manage them in a digital and user-friendly way. Already today, algorithms are helping to categorize and search these documents. This category also includes digital estate management solutions. Technically, it would be possible to analyze and understand the contents of the documents with the help of linguistic technologies and artificial intelligence. From this, recommendations could then be derived, such as a suggestion for a cheaper insurance provider with equivalent coverage. As with "Financial Partners", situational recommendations offered from a "life coach" perspective are also possible in this area and would be more substantiated due to a broader data basis. However, the complexity of such models is very high, so that they are still in their infancy today. And whether or not customers really want to grant such insights also remains to be seen.

DIGITIZATION OF OPERATIONS

At their core, insurance companies are information-processing companies that produce virtual products. This is precisely why digitization creates so many opportunities within this industry. Every element of the services provided by an insurer can be revisited and reconsidered from a digital point of view. Successful InsurTechs then become equipment suppliers to the insurance industry.

In the area of digital insurance operations, we distinguish between five business model categories:

1 DIGITAL SALES ENABLING

"We digitally enable your sales force."

InsurTechs focusing on "Digital Sales Enabling" create digital software tools and platforms to improve the sale of insurance products – either by digitally supporting personal sales activities or by allowing for direct digital distribution.

2 PROPOSITION/UNDERWRITING

"We enable new products and new ways in underwriting and pricing."

Which risks should be underwritten at which price? This is the key question that insurers ask themselves on a daily basis. InsurTechs can provide support in various ways: in the acceptance process, the risk assessment can be optimized, for example, by using more data or better analyses to assess risk more precisely or to clarify open issues with less effort. Data providers include the Internet of Things (IoT) as well as other innovations, such as drones. In some cases, new technologies can also be used to create completely new propositions, such as telematics rates or products offering "experienced safety" via new services. Technologies used to optimize pricing also fall into this category. They range from rebate management to customer group segmentation, from the correct positioning on comparison websites to so-called yield management. The latter is also used in travel and tourism to simultaneously optimize prices, lead costs and lifetime customer value.

3 SERVICE/ADMINISTRATION

"We empower your operations."

The "Service and Administration" business model comprises InsurTechs or other tech companies that digitize internal service and administration processes. This affects not only the core systems of insurers and other market participants but also insurance-specific standard components such as data analysis, the use of artificial intelligence or process automation across all internal functions. This category also includes digital solutions for specific functions such as compliance or legal and compliance issues.

4 CLAIMS

"We optimize your claims processing and decision-making."

InsurTechs in this category offer leaner and more customerfriendly claims processes and better claims adjustment decisions. A new type of customer interaction, such as the use of photos for damage assessment, can already be very helpful in many cases. In addition, there is the digitization of the supply chain and payment processing, the digital management of partner networks, the evaluation of external data sources and the detection and fight against fraud. In order to assess a damage, the Internet of Things or e.g. images taken by drones can also provide new data. Much can also be improved with regard to customer interaction: In the case of so-called digital restitution in kind, for example, the insurer promises a claimant compensation in form of goods rather than payment of money. The person concerned can select a replacement product in a shop, which is then delivered and installed.

5 BALANCE SHEET/FINANCIAL RESOURCE MANAGEMENT

"We optimize investment decisions and financial processes."

The financial processes of insurance companies primarily focus on greater transparency, efficiency, and effectiveness. Affected areas include governance processes such as controlling, accounting or risk management at the corporate level. The focus is also on faster and more informed decision-making processes, such as asset liability management (optimization of financial assets against the background of possible future claims and benefit obligations), investment management, capital investment or strategic corporate planning. In addition, digitization can also, for example through the use of blockchain technology, create new opportunities in reinsurance or facilitate the procurement of risk capital (transfer of insurance risks via digital platforms to the capital markets) up to the level of new innovative risk trading solutions which have become a high interest topic for insurers.

Appendix 2: LOGIC FOR THE ASSESSMENT OF THE BUSINESS MODELS

In order to strategically evaluate the identified business model categories, we **developed our own systematic approach**. For one, we evaluate a business model's **market potential**. In addition to this, **we estimate its chances of success**. Both assessments are then combined to determine the strategic potential. We introduced this logic in 2016 with the first edition of the German InsurTech Radar. As it has proven its worth in countless discussions, we continue to use it as our assessment framework. The classification of business model categories can be found in the main part of this report.

- MARKET POTENTIAL The market potential of an InsurTech business model is determined by the addressable premium pool and the addressable section of the value chain.
 - The addressable premium pool is derived from the types of insurance and the associated premium amounts which an InsurTech's business model is targeting. The logic is quantitative and simple: the larger the premium pool, the higher the possible revenue potential and thus the economic attractiveness of a business model. For example, a niche comparison portal for funeral insurance addresses a considerably smaller premium pool than an online broker advising on entire insurance portfolios.
 - The addressable section of the value chain describes the share of the insurance value chain that an InsurTech's business model is targeting. Here, too, the rule applies: the greater the portion of the chain that is addressed, the higher the revenue potential of an InsurTech. In property insurance, for example, the value added generated by sales amounts to only approximately 15 percent of the total premium (idealized), while damages account for around 60 percent. If an InsurTech with a new business model succeeds in reducing the losses, even small changes can have strong leverage on profitability. The distribution of value added across the individual steps of the insurance value chain varies by insurance product. For some property insurance policies, for example, the distribution costs can be well over 15 percent.

- CHANCES OF SUCCESS We estimate the chances of success of an InsurTech business model using two dimensions: consistency and differentiation. The chances of success determine whether an InsurTech could actually succeed in exploiting the market potential with a convincing business model
 - In order to assess a business model's **consistency**, we determine whether a business model mirrors the actual behavior of all parties involved. Is it aligned with the preferences of customers, distributors or other partners? An important aspect is whether it is a so-called "pull" or "push" product. In the case of compulsory insurance such as motor third party loss insurance, for example, private customers actively search the Internet for attractive offers ("pull effect"). For many other insurance products, however, reality looks somewhat different. So far, customers have rarely actively demanded more complex or niche-oriented insurance products. These products require an active sales process ("push"). An InsurTech business model that ignores these basic facts is doomed to fail.
 - When assessing a business model's **differentiation**, we determine whether there is the possibility to erect effective market entry barriers. If, for example, an InsurTech is able to build up a large proprietary database on a specific benefit in the market, use it for analyses and derive proWcesses from it, it is harder to copy than a business model based solely on better customer experience. Only if a business model is able to permanently differentiate itself from the competition with the products and services offered will it have sufficient time to grow and achieve adequate margins.

