

Digital transformation in insurance



Creating value through digital transformation

For global insurers, digital transformation and disruptive innovation have gone from being vague futuristic concepts to immediate-term action items on senior leaders' strategic agendas. New competitive threats, ongoing cost pressures, aging technology, increasing regulatory requirements and generally lackluster financial performance are among the forces that demand significant change and entirely new business models.

Other external developments – the steady progress toward driverless cars, the rapid emergence of the Internet of Things (IoT) and profound demographic shifts – are placing further pressure on insurers. A common fear is that new market entrants will do to insurance what Uber has done to ride hailing, Amazon has done to retail and robo advisors are doing to investment and wealth management.

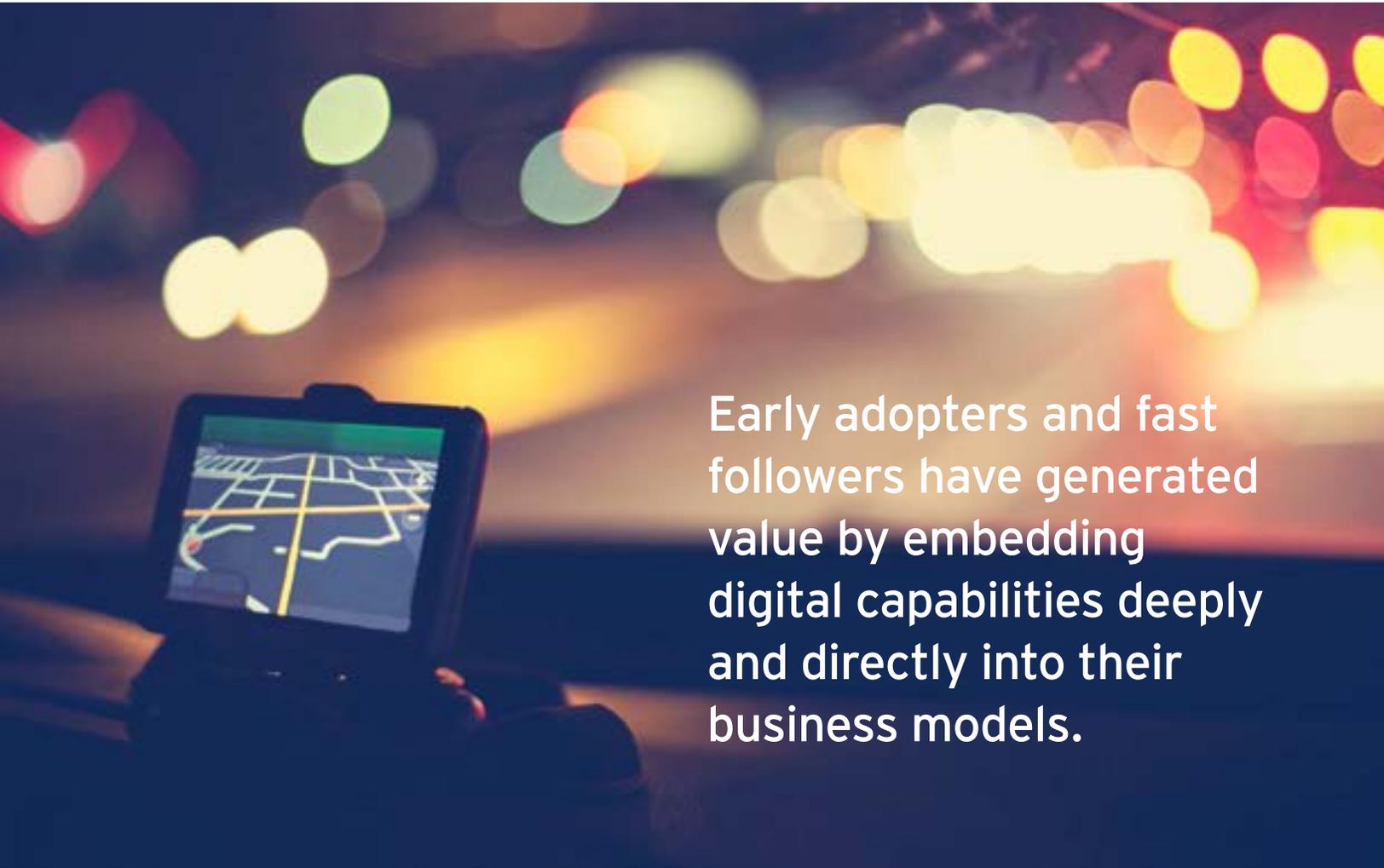
Yes, digital transformation has become an overused buzzword beloved by industry analysts, consultants and pundits in the business press. Yes, it can mean different things to different companies. However, it is true that nearly every insurer on the planet – no matter its size, structure or particular circumstances – should undertake digital transformation immediately. This is true because of ever-rising consumer expectations and the insurance sector's lagging position in terms of embracing digital.

The good news is that many early adopters and fast followers have already demonstrated the potential to generate value by embedding digital capabilities deeply and directly into their business models. Even successful pilot programs have been of limited scope. By addressing narrowly defined problems or one specific part of the business, they have delivered limited value. Formidable cultural barriers also remain; most insurers are simply not accustomed

or equipped to move at the speed of digital. Similarly, few, if any, insurers have the talent or workforce they need to thrive in the industry's next era.

Because the value proposition for digital transformation programs reaches every dimension of the business, it can drive breakthrough performance both internally (through increased efficiency and process automation) and externally (through increased speed to market and richer consumer and agent experiences). Therefore, insurers must move boldly to devise enterprise-scale digital strategies (even if they are composed of many linked functional processes and applications) and "industrialize" their digital capabilities – that is, deploy them at scale across the business.

This paper will identify an actionable definition of digital transformation and explore a range of specific use cases that can produce the breakthrough performance gains and ROI insurers need.



Early adopters and fast followers have generated value by embedding digital capabilities deeply and directly into their business models.

From core transformation to digital transformation

Recognizing the need to innovate and the limitations of existing technology, many insurers undertook core transformation programs. These investments were meant to help insurers set foot into the digital age, yet represented a very first step or foundation so insurers could use basic digital communications, paperless documents, online data entry, mobile apps and the like. These were necessary steps, as the latest EY insurance consumer research shows that more than 80% of customers are willing to use digital and remote contact channels (including web chat, email, mobile apps, video or phone) in place of interacting with insurers via agents or brokers.

More advanced technologies, which can enable major efficiency gains and cost improvements for basic service tasks, also require stronger and more flexible core systems. Chatbot technology, for instance, can deliver considerable value in stand-alone deployments (i.e., without being fully integrated with core claims platforms). However, the full ROI cannot be achieved without such integration.

For many insurers, core transformation programs are still underway, even as they recognize a clear need to do more. Linking digital transformation programs to core transformation can help insurers use resources more effectively and strengthen the business case. Waiting for core transformation programs to be completed and then taking up the digital transformation would likely result in many missed performance improvement and innovation opportunities, as well as higher implementation costs.

One key challenge is the industry's lack of standardized methodologies and metrics to assess digital maturity. With unclear visibility, insurance leaders will have a difficult time knowing where to prioritize investments or recognizing the most compelling parts of the business case for digital transformation.

But, because digital transformation is a long and continuous journey, most insurers are best served by a phased or progressive approach. This is not to suggest that culturally risk-averse insurers adopt even more caution. Rather, it is to acknowledge that complete digital transformation at one go can't be managed; there are simply too many contingencies, interdependencies and risks that must be accounted for.

Insurers must be focused and bold within their progressive approach to digital transformation, as it is the way to generate quick wins and create near-term value that can be invested in the next steps. Each step along the digital maturity curve enables future gains. Rather than waiting to be passively disrupted, truly digital insurers move boldly and proactively, testing and learning in pursuit of innovation, and redesigning operations, engaging customers in new ways and seeking out new partners. (See Figure 1.)



Achieving the full value of digital transformation requires core transformation.

Defining our terms: what digital transformation means

Digital transformation is a term used so frequently and variously that it is commonly misunderstood. The term is best defined as capitalizing on the power of technology to revisit business models, acquire customers to new channels and create essential user experiences.

Insurers that digitize the enterprise in this way can automate slow, error-prone and expensive processes for increased speed, accuracy and cost efficiency. They can streamline and simplify existing operations to deliver immediate-term performance gains, but also to become more nimble for longer-term success, based on a well-honed ability to continuously add and enhance more digital capabilities.

By definition, digital transformation strategies can be applied broadly across the organization and incorporate a number of related disciplines.

Innovation management: Insurers today must offer a wider portfolio of products for them to stay relevant to consumers looking for high degrees of personalization. Innovative portfolio management techniques and the ability to establish product “factories” are critical to designing better products and delivering them to market faster.

Innovation isn’t just about products, of course. Digital transformation programs may drive innovation in back-office processes, too (fully automated claims management processes, etc.). They can also enable future innovation by removing technology barriers. For example, better integrated data from sensors deployed within automobiles or buildings can make for smarter underwriting, as well as providing the impetus for innovative product models, such as pay-per-use policies. Similarly, peer-to-peer insurance has become possible through the adoption of digital communities on social media.

Emphasis on experience: Enhanced experiences in the service of closer and more direct consumer relationships are the targets for many digital transformation programs. According to EY research, global insurance consumers place an extraordinarily high value on quality digital experiences. EY surveys show that 40% of consumers decide to continue insurer relationships based on the quality of the experience. Rising consumer expectations and increasing willingness to switch to new providers are forcing insurers to be more accountable, transparent and effective. Again, these attributes are frequent byproducts of successful digital transformations.

Experience often boils down to the ease of interactions, with insurers able to recognize customers as they shift channels during the course of a single claims process or as they research new policies. Consumers want to interface with insurers digitally, as well as through other channels. The expectation is that there is consistent information and context across all channels – so the insurers recognize customers and what they’re trying to accomplish and where they are in their customer journeys, no matter the channel. It is critical – a baseline customer expectation, really – that hand-offs between channels are seamless, with insurers capable of managing the proper processes, training, governance and controls to make it happen.

New models: Given the lagging position of many insurers in digital transformation, the industry is seeking new options for advancing their digital capabilities. Those options include partnerships or acquisition with FinTechs and InsurTechs. Other companies are investing in FinTechs, creating their own internal innovation labs or collaborative partnerships with technology leaders outside the industry. The creation of industry “utilities,” where individual companies or groups of insurers offer actuarial as a service, also has strong potential upside. As digital transformation looks different at different insurers, these are all valid strategies to achieve it.

Digital transformation across the insurance value chain: a path to maturity and value creation

Digital transformation delivers tangible and intangible value across the insurance value chain, with specific benefits in six key areas:

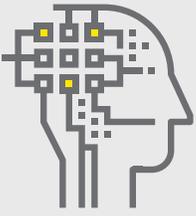


It's important to emphasize speed and agility as essential attributes of the digital insurer. Even the most innovative firms must move quickly if they are to fully capitalize on the value of their innovations – a concept that applies across the entire value chain. The idea is to launch microservices faster and embrace modernized technology where possible. For instance, deploying cloud infrastructures will enable some parts of the business to scale up and scale down faster, without disrupting other parts of the business with major “big dig” implementations.

The dependencies and limitations of legacy technology are also worth reiterating. Insurers that can integrate process innovations and new tools with existing systems – and do so efficiently and without introducing new operational risk – will gain a tangible and sustainable competitive advantage.



The digital transformation scorecards on the following pages reflect how the benefits apply to different technologies and initiatives.



Omni-channel

Today's consumers are naturally omni-channel, researching products online, recommending and talking about them with friends and contacts on social media, and then buying them via mobile apps or at brick-and-mortar retail locations. Basically, they want a wide range of options – text, email, web chat, phone and sometimes in-person. A better omni-channel environment may also enable insurers to place new products in front of potential customers sooner and more directly than in the past.

Insurers must look beyond merely supporting multiple channels and find the means to allow customers to move seamlessly between channels, or even within channels (such as when they move from chatting with a bot to chatting with a human agent). It is difficult to overstate how challenging it is to create the capabilities (both technological and organizational) to recognize customers and what they are seeking to do, without forcing them to re-enter their passwords or repeat their questions.

There are many other subtleties to master, including context. For example, a customer trying to connect via social media to voice concerns is not likely to respond well to a default ad or upsell offering. Omni-channel is increasingly a baseline capability that insurers must establish to achieve digital maturity.



Digital transformation scorecard



Cost reduction



Customer experience enhancement



Speed to market



Sales productivity



Underwriting efficiency



Claims efficiency

Omni-channel is increasingly a baseline capability that insurers must establish to achieve digital maturity.



Big data analytics

The application of advanced analytical techniques to large and ever-expanding data sets is also foundational for digital insurers. For instance, predictive analytics can identify suitable products for customers in particular regions and demographic cohorts that go far beyond the rudimentary cross-selling and upselling approaches used by many insurers. Big data analytics also hold the key for creating personalized user experiences.

Analytics that “listen” to customer inputs and recognize patterns can identify opportunities for new products that can be launched quickly to seize market openings. Deep analysis of the customer base may make clear which distribution channels (including individual agents and brokers) are the best fit for certain types of leads, leading to increased sales productivity.

The back-office value proposition for big data analytics can also be built on superior recognition of fraudulent claims, which are estimated to be around 10% of all submitted claims, with an impact of approximately \$40 billion in the US alone. Reducing that number is an example of how digital transformation efforts can be self-funding. Plus, the analytics capabilities established in anti-fraud units can be extended into other areas of the business.

Big data is also reshaping the risk and compliance space in important ways. As insurers move toward more precise risk evaluations (including the use of data from social channels), they must also be cognizant of shifting regulations regarding data security and consumer privacy. It won't be easy ground to navigate.



Digital transformation scorecard



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Customer experience enhancement



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Sales productivity



Underwriting efficiency



Claims efficiency

Big data analytics hold the key for creating personalized user experiences.



Internet of Things (IoT)

The onset of smart homes gives insurers a unique opportunity to adopt more advanced and effective risk mitigation techniques. For instance, intelligent sensors can monitor the flow of water running through pipes to protect against losses caused by a broken water pipe. Similar technology can be used to monitor for fire or flood conditions or break-ins at both private homes and commercial properties.

The IoT clearly illustrates the new competitive fronts and partnership opportunities for insurers; leading technology and consumer electronics providers have a head start in engaging consumers via smart appliances and thermostats. Consumers, therefore, may not wish to share the same or additional data with their insurers. Insurers may also be confronted by the data capture and management challenges related to IoT and other connected devices.



Digital transformation scorecard



Cost reduction



Customer experience enhancement



Speed to market



Sales productivity



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Claims efficiency



Telematics

Sometimes grouped with IoT, data from sensors and telematics devices have applications across the full range of insurance lines:

- ▶ Real-time driver behavior data for automotive insurance
- ▶ Smart appliances – including thermostats and security alarms – within homeowners insurance
- ▶ Fitness trackers for life and health insurance
- ▶ Warehouse monitors and fleet management in commercial insurance

The data streams from these devices are invaluable for more precise underwriting and more responsive claims management, as well as product innovation. Telematics data provides the foundation for usage-based insurance (UBI), which is sometimes called “pay-as-you-drive” or “pay-as-you-live.” Premium pricing could be based on actual usage and driving habits, with discounts linked to miles driven, slow or moderate speeds and safe braking patterns, for instance.

Consider, too, how in-vehicle devices enable a fully automated claims process:

- ▶ Telematics data registers an automobile accident and automatically triggers a first notice of loss (FNOL) entry.
- ▶ Claims information is updated through text-based interactions with drivers or fleet managers.
- ▶ Claimants could be offered the opportunity to close claims in 60 minutes or less.

Such data could also be used to combat claims fraud, with analysis of the links between severity of the medical condition and the impact of the accident. Some insurers are already realizing the benefits of safe driving discounts and more effective fraud prevention. These telematics-driven processes will likely become standard operating procedure for all insurers in the near future.



Digital transformation scorecard

Cost reduction



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The data streams from these sensors are invaluable for more precise underwriting and more responsive claims management, as well as product innovation.



Voice biometrics and analysis

Audio and voice data may be the most unstructured data of all, but it too offers considerable potential value to those insurers that can learn to harness it. A first step is to use voice biometrics to identify customers when they call into contact centers, saving customers the inconvenience of entering policy numbers and passwords, information that may not be readily at hand.

Other insurers seeking to better understand their customers may convert analog voice data from call center interactions into digital formats that can be scanned and analyzed to identify customer emotions and adjust service delivery or renewal and cross-selling offers accordingly. The manual quality control process checks for less than 1% of the recordings, which is insufficient. Through automation, the entire recording can be assessed to identify improvement areas.



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Drones and satellites

Early-adopting insurers are already using drones and satellites to handle critical tasks in underwriting and claims. In commercial insurance, for instance, drones can conduct site inspections, capturing thermal imagery of facilities or work sites. Their reviews can be as specific as looking for roof cracks, old or damaged boilers, and other physical plan defects that can pose claims risks.

Within homeowners lines, satellites can capture data to analyze roofs, chimneys and surrounding terrain so that insurers can determine which homeowner they want to add to underwrite, as well as calculate competitive and profitable premiums. When linked to digital communications tools, drone and satellite data can even trigger notifications to customers of new price options or policy adjustments.

Within claims, drones and satellites can handle many tasks previously handled by human adjustors across all lines of business. Such remote assessments can reduce claims processing time by a considerable degree. This method is particularly effective in situations such as after floods, fires and natural disasters, where direct assessment is not possible.

While many transformation programs that use drones and satellites remain in the experimental stages due to operational challenges, it is possible that they can improve the efficiency and accuracy of underwriting and claims information gathering by 40%.





Blockchain

Blockchain provides a foundation for entirely new business models and product offerings, such as peer-to-peer insurance, thanks to its ability to provide virtual assistance for quoting, claims handling and other tasks. It also provides a new level of information transparency, accuracy and currency, with easier access for all parties and stakeholders in an insurance contract. With higher levels of autonomy and attribution, blockchain's architectural properties provide a strong digital foundation to drive use of mobile-to-mobile transactions and swifter, secure payment models, improved data transparency and reduced risk of duplication or exposure management.

Insurance companies are interested in converting selected policies from an existing book to a peer-to-peer market. A blockchain network is developed as a mechanism for integrating this peer-to-peer market with a distributed transaction ledger, transparent auditability and "smart" executable policy.

E-aggregators are another emerging business model that is likely to gain traction, because it is appealing to both insurers and the customers. Insurers can offer better pricing due to reduced commissions compared to a traditional agent-based distribution model, while customers gain new freedom to compare different policies based on better information. Of course, e-aggregators (whether fully independent or built through an existing technology platform) will require a sophisticated and robust digital platform for gathering information from different insurance companies to present it to consumers in the context of a clear, intuitive experience. It is also important for insurance companies to transfer information to e-aggregators rapidly; otherwise, there is the risk they will miss out on sales opportunities. This is why blockchain is the right technology for connecting e-aggregators and insurers.



Digital transformation scorecard



Cost reduction



Customer experience enhancement



Speed to market



Sales productivity



Underwriting efficiency



Claims efficiency

Blockchain is among the most powerful technologies for enabling digital transformation.

Digital transformation scorecard

By understanding the near-term value potential of initial data and technology investments, insurers can chart a clear and self-funding course on their transformation journeys and become truly digital in their strategies, operations and cultures.

	Cost reduction	Customer experience enhancement	Speed to market	Sales productivity	Underwriting efficiency	Claims efficiency
 Omni-channel	✓	✓	✓	✓		✓
 Big data analytics	✓	✓	✓	✓	✓	✓
 Internet of Things (IoT)	✓	✓			✓	
 Telematics		✓		✓	✓	✓
 Voice biometrics and analysis	✓	✓				
 Drones and satellites					✓	✓
 Blockchain	✓	✓	✓	✓	✓	✓

Planning the digital journey

The most effective digital transformations are those that balance near-term value with long-term evolution. It's about both winning sprints and enduring for the marathon; moving faster today to seize quick wins with specific, focused deployments to help the entire organization act more boldly on tomorrow's broader, more ambitious agendas, as new business strategies, operating models and product types become competitive necessities. Insurers must cultivate critical capabilities that are necessary to enable digital transformation. (See Figure 1.)

Again, speed to market and organizational agility are imperative. Business and technology leaders must ask themselves if they can lead change quickly enough – measuring technology deployments and capability enhancements in monthly or quarterly cycles, with self-funding ROI models based on incremental improvements to provide a clear transformation vision providing direction for the long term.

The question is as much defined by cultural and talent factors as it is by strategic or technological drivers. Test-and-learn, fail-faster and design thinking must become guiding principles for all departments, rather than mantras for one-off change initiatives. Multiple functions must collaborate constantly as part of standard operating procedure. Silos dividing business units, compliance and risk, underwriting, marketing and digital teams must be broken down if better, more customized products are to be launched faster, at scale and in a more personalized fashion.

Lastly a phased roadmap for transformation planning can help organizations move efficiently (and boldly) from initial assessments to substantiated business cases and prioritized investments to implementation and change management. (See Figures 2 & 3.)

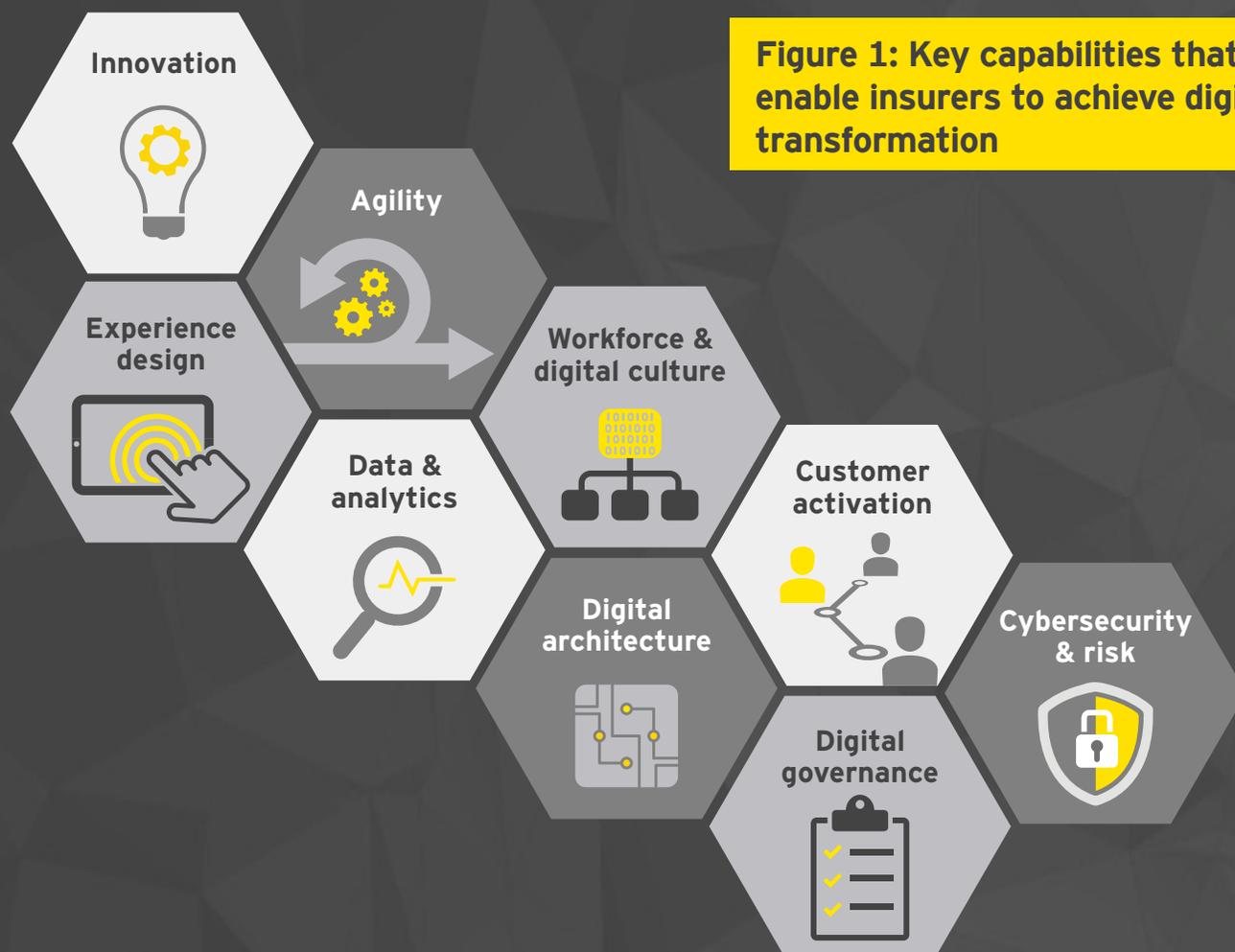
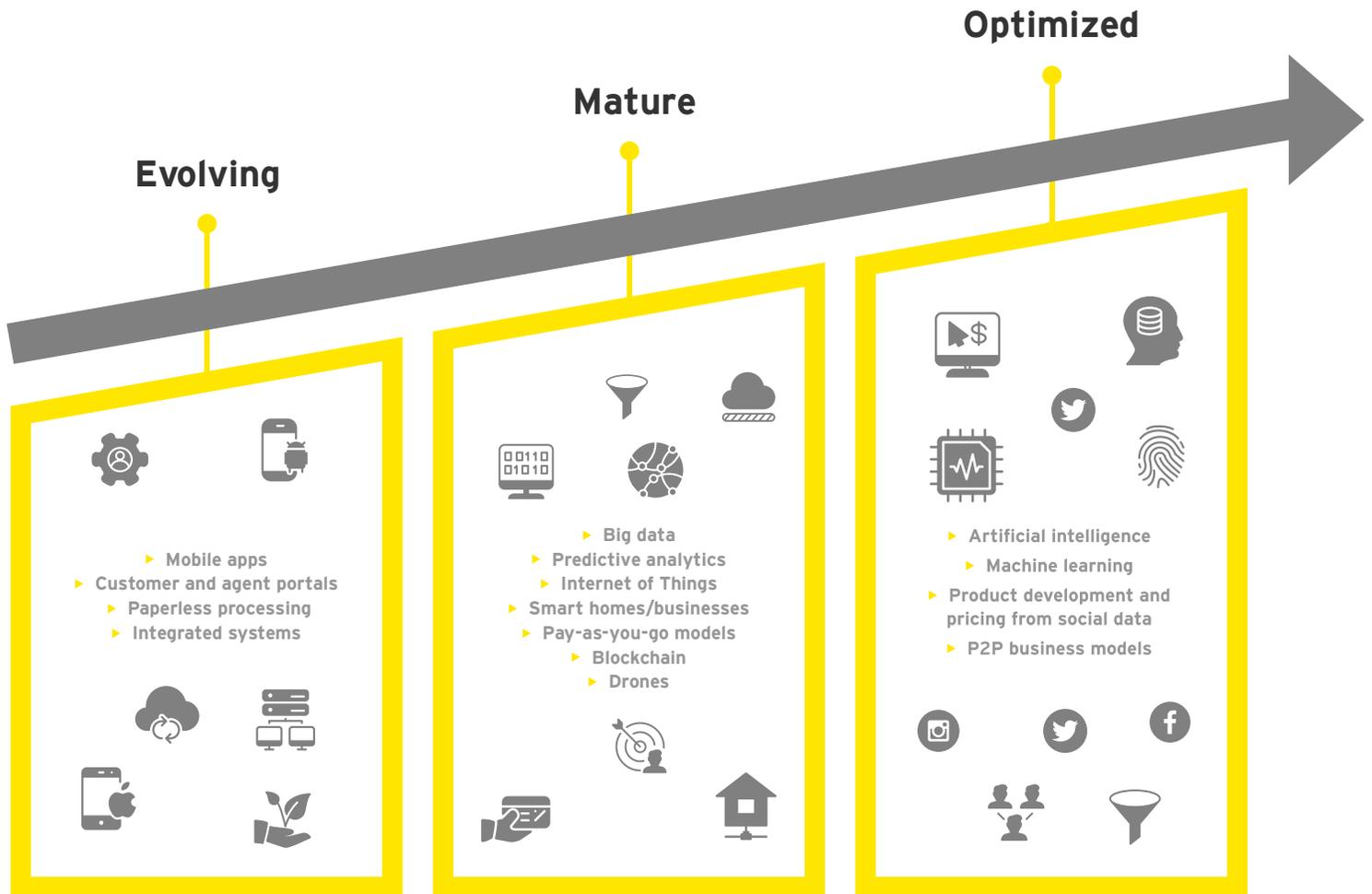


Figure 1: Key capabilities that will enable insurers to achieve digital transformation

A phased approach to achieving digital transformation

Figure 2: Evolving, mature and optimized capabilities that represent milestones on the journey to becoming a digital insurer



Evolving capabilities

- ▶ Digital strategy enables agility and flexibility in order to effectively respond to industry changes and market opportunities in line with overall business strategies.
- ▶ New business models operationalize innovation and transform the customer experience across segments and channels.
- ▶ Minimally viable products, clearly defined and well-executed, will address key business and technology challenges, provide automation opportunities and improve customer experience across the value chain.

Mature capabilities

- ▶ Business model and governance enables effective partnering to rapidly integrate evolving technologies into the innovation agenda.
- ▶ Third-party business and IT platforms increase speed to market and streamline product development and launch.
- ▶ Advanced business and technology capabilities enable rapid development with a focus on integration with and maintenance of legacy systems.

Optimized capabilities

- ▶ A fully integrated digital strategy enables constant innovation across the organization's people, processes and technology.
- ▶ The combination of an agile operating model, cloud-enabled "microservices" architecture and multidimensional product management capabilities leads to rapid development and deployment of technology to further transform the customer experience across channels.
- ▶ Advanced data and analytics capabilities apply artificial intelligence, machine learning and predictive analytics in real time to determine the "next-best" actions to deepen customer relationships and drive efficiency.

Figure 3: the typical life cycle of digital transformation journey



Bottom line: thinking and acting transformatively

The inevitable advancement of digital technologies has placed the traditionally slow-moving insurance sector under greater pressure than ever before. Insurers stand to lose if they do not invest more in innovation, learn to experiment more and fail faster. Cultural change and different skillsets are just as important as technology upgrades. New thinking, clear purpose and strategic vision are required every bit as much as new business models.

Yet amidst the dire warnings of creative destruction, it is worth remembering that the insurance industry is full of companies that have profitably priced and managed risk for decades. Certainly today's threats are more complex than ever before, but the growth opportunities are more prevalent and diverse than ever before. In other words, digital transformation is as much about playing offense through proactive innovation as it is about playing defense against rising customer expectations and new competitors.

The most successful digital insurer moves faster, more precisely and with greater purpose toward specific objectives and an ambitious strategic vision. Tomorrow's leaders must focus on the art of the possible today and begin moving immediately toward incremental performance improvements based on better digital capabilities across the value chain. Every dollar invested in digital transformations should be evaluated in terms of how it can optimize specific processes and functions today while igniting sustainable growth for tomorrow.

The most successful digital insurers move faster, more precisely and with greater purpose toward specific objectives and an ambitious strategic vision.

How EY can help

EY understands the digital transformation imperative – and how insurers can and should move forward. Our deep functional knowledge, long industry experience and broad set of capabilities make EY ready to collaborate with insurers to develop programs that drive immediate value and set a strategic course to a fully automated, analytics-driven and highly innovative future. Working as strategic advisors, leading implementation support and services teams, or serving as full business partners in industry utilities, EY is ready to help make the digital insurer a reality – starting today.

Why EY

- ▶ Digital transformation approach that delivers tangible and intangible value across the insurance value chain, with specific benefits in key areas
- ▶ Appropriate industry insights through our global insurance customer and digital research program, which includes surveys of more than 20,000 participants
- ▶ A broad range of digital capabilities, from strategy through execution and ongoing improvement, developed internally and via acquisition
- ▶ Major collaborations to augment our capabilities and rapidly scale up when providing digital transformations
- ▶ EY Digital Innovation centers – high-impact environments for ideation sessions designed to spark new thinking, creative collaboration and proofs of concepts

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