



The future belongs to the connected

Achieving the vision of
digital insurance

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Drivers of disruption: why insurers must become more digital

Speed of new technologies



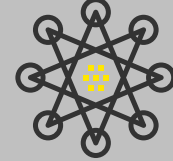
Amazing speed and power of core computing processing, connected smart devices, new protocols and easy-to-scale platforms fuel the need to be agile.

Rising consumer expectations



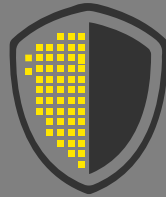
Consumers expect experiences and interactions with greater choice, personalization, simplicity and ease.

Explosion of data



The rapid expansion of data sources will continue providing insights into different attributes of risk, driving a shift to more tailored products and services.

Protection and security



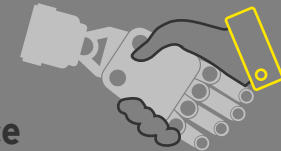
Cyber risk, data protection, privacy, identity and access management must be embedded in all systems, operations and processes.

Shifting market trends



The competitive landscape is shaped by low barriers to entry and new risk, and financial implications from low growth, new capital and excessive costs.

Workforce of the future



Aging workforce and talent shortages give rise to different needs, skill sets, and the need to reduce costs and automate wherever possible.

These factors are both threats and enablers. By enhancing digital capabilities, insurers can operationalize innovation, instill agility and transform to become digital insurers.

The strategic priorities: where insurers must focus

In navigating disruption, the priorities must be:



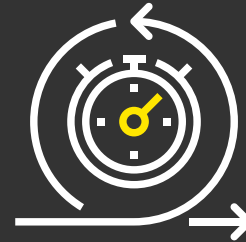
Growth

Imagine every dollar invested today delivering results next quarter and setting the stage for sustainable growth in the years to come



ROI

Imagine new business models, enhanced technology and simple process changes that simultaneously improve performance and reduce costs



Agility

Imagine conceiving, developing and launching new and more personalized products in record time



Customer engagement

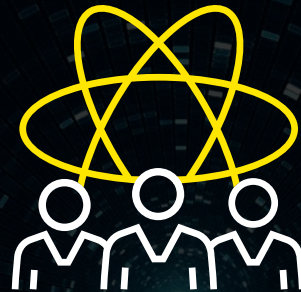
Imagine moving closer to end-consumers and truly “owning” those relationships through new frameworks and improved channels

Defining our terms: what digital insurers do

A digital insurer meets strategic priorities by leveraging the power of technology to:



Revisit business models

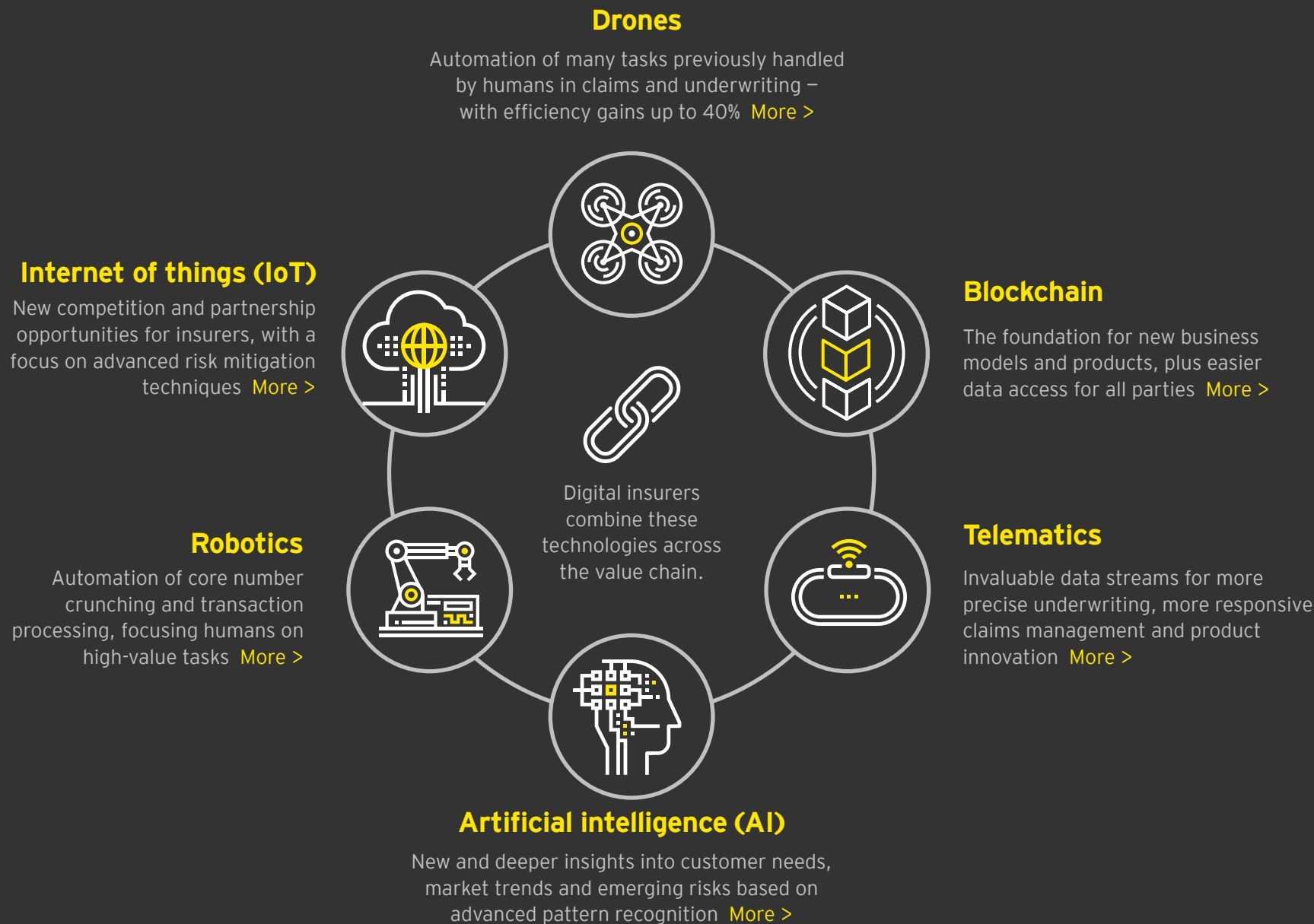


Acquire customers through new products and channels



Create essential user experiences

Emerging technologies: the tools defining the future



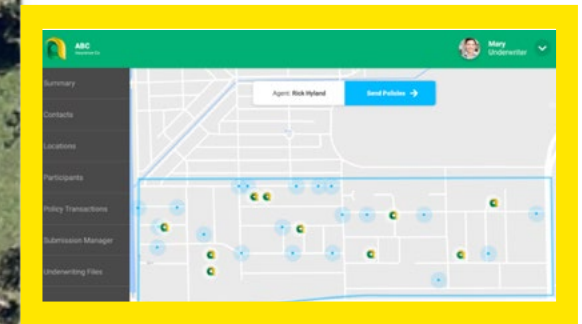


Emerging technologies: Drones and satellites

Automated claims adjusting and processing with speed and security and improved risk assessment for new customers

Drones in insurance

- ▶ Information gathering for underwriting and risk-based customer acquisitions
- ▶ Remote assessments in claims
- ▶ Calculating premiums for homeowners' insurance
- ▶ Site inspections for commercial insurance



Value proposition:

	Cost reduction		Customer experience enhancement		Speed to market		Sales productivity	✓	Underwriting efficiency	✓	Claims efficiency
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Emerging technologies: Blockchain

Increased trust and transparency speak to the heart of the insurance business

Blockchain in insurance

- ▶ Fraud detection and risk prevention
- ▶ Claims prevention and management
- ▶ IoT and product development
- ▶ New distribution and payment models
- ▶ Reinsurance

A three-step path to adoption



Value proposition



Bottom line: The time for investment and experimentation is now.



Emerging technologies: Telematics

Real-time streams for more accurate data, efficient claims and usage-based policies

Telematics in insurance

- ▶ Real-time driver behavior data for automotive insurance
- ▶ Smart appliances for homeowners' insurance
- ▶ Fitness trackers for life and health insurance
- ▶ Warehouse monitors and fleet management for commercial insurance
- ▶ Claims fraud prevention

Wearable or personal technology, sometimes called "fit tech"



Sensors on objects – personal and commercial vehicles, and shipping containers



Location-based sensors in factories, warehouses, offices and homes – "smart" thermostats, alarms and cameras



Geographic information systems and satellites providing geophysical, topographical, climatological and hydrological data



Value proposition

	Cost reduction		Customer experience enhancement		Speed to market		Sales productivity		Underwriting efficiency		Claims efficiency
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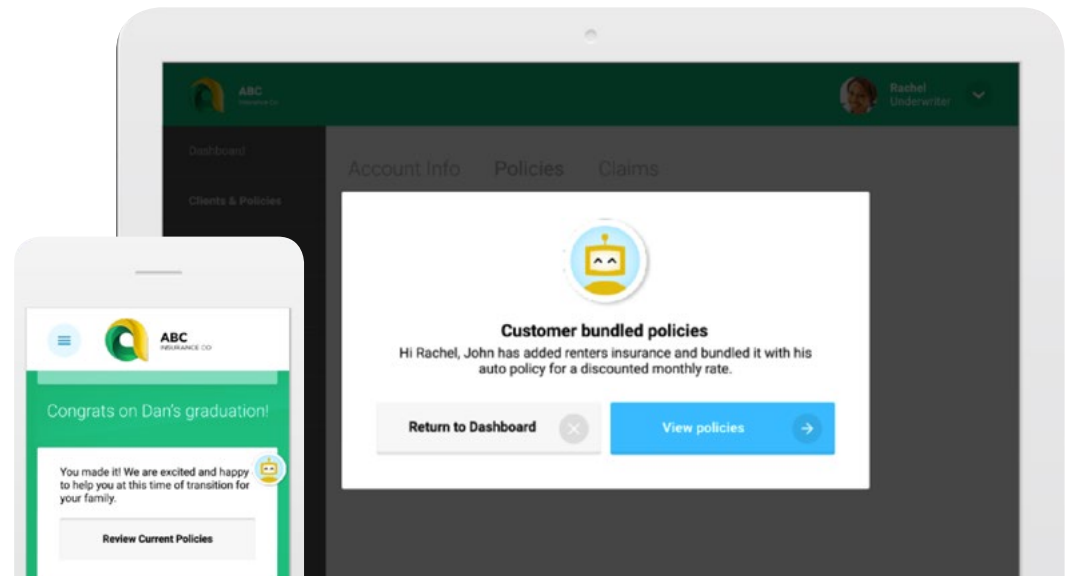


Emerging technologies: AI

Smart systems that get smarter in researching risk, monitoring customer behavior and interacting with customers

AI in insurance

- ▶ Virtual agents based on self-optimizing robo-advice
- ▶ AI-enabled chatbots to handle basic customer interactions and questions
- ▶ Recommendation of upselling and cross-selling offers via portfolio underwriting
- ▶ Claims validation (in conjunction with robot process automation)
- ▶ Continuous refinement of pricing, claims processing and complaint handling



Value proposition

✓	Cost reduction	✓	Customer experience enhancement		Speed to market		Sales productivity	✓	Underwriting efficiency		Claims efficiency
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Emerging technologies: Robotics

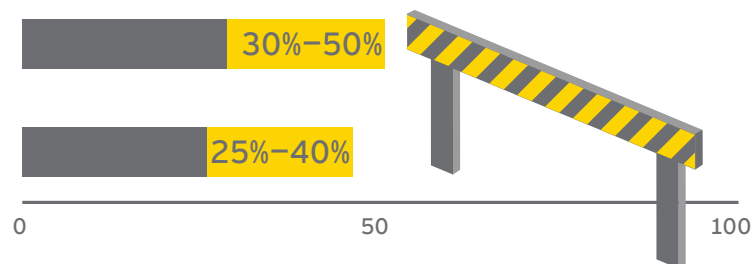
Heavy lifting and “number crunching” in core functions to free human resources to focus on anomalies, high-risk cases, and value-adding and customer-facing tasks

Robotics in insurance

- ▶ Processing of low-risk claims (such as all claims <\$1,000)
- ▶ AI-aided chats and text conversations with customers
- ▶ Policy administration tasks – policy renewal and changes based on contact center or self-service inputs
- ▶ Provision of robo-advice for insurance needs, and policy options in sales and distribution

Potential productivity gains and cost savings from RPA

RPA projects that fail to produce the expected value



Value proposition



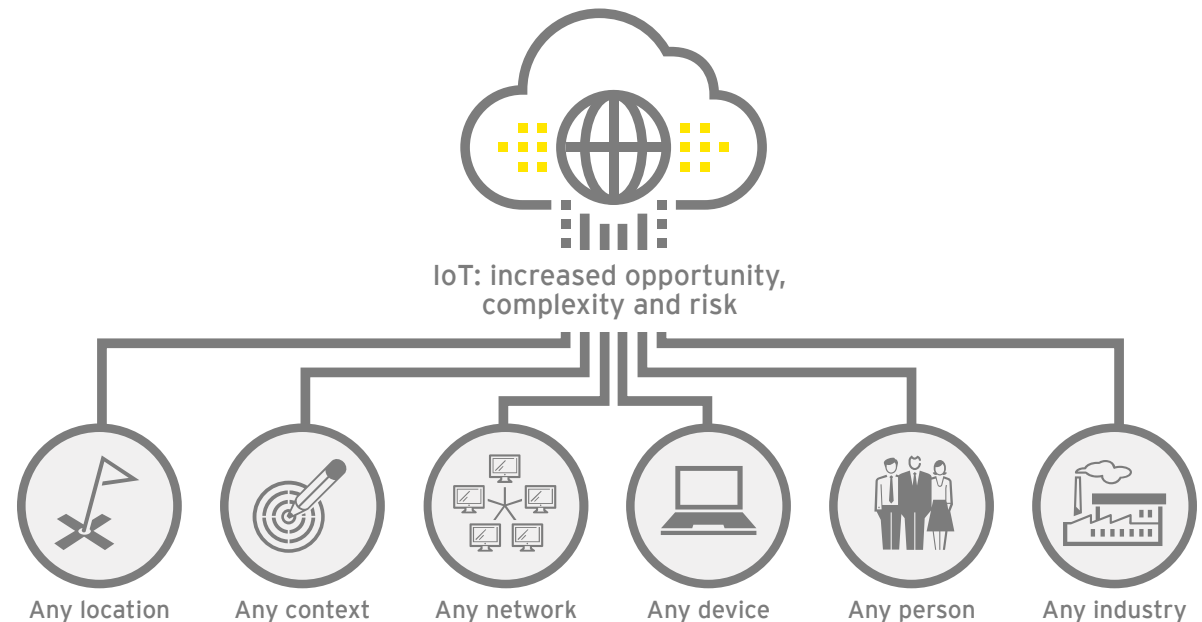


Emerging technologies: IoT

Connected devices for proactive risk mitigation and loss prevention, better customer insight, and to support an end-to-end view of the claims adjusting process

IoT in insurance

- ▶ More advanced and effective risk mitigation
- ▶ Smart appliances and electronics
- ▶ Operations monitoring
- ▶ Higher quality consumer data and insights
- ▶ Product innovation

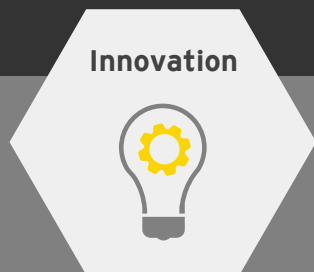


Value proposition



Transformation enablers: how insurers become digital





Digital insurance enablers

Innovation is intrinsic to the strategies, operations and cultures of digital insurers.

The imperatives:

- ▶ Potential obsolescence for insurers that can't adapt rapidly to changing customer expectations, shifting marketplace dynamics and continuous disruption
- ▶ Competitive advantage through proactive development of new products and services
- ▶ The ability to move to market faster and instill a "fail fast" mentality across the organization

The actions:

- ▶ Establish an innovation function to fund, incubate and launch new capabilities
- ▶ Create dedicated innovation spaces and sessions to foster collaboration
- ▶ Assemble teams of design, development and subject matter experts to rapidly vet and prototype new ideas
- ▶ Focus on minimally viable products (MVPs) faster

The capabilities:



Ideation



Innovation session



Hackathons



Rapid prototyping

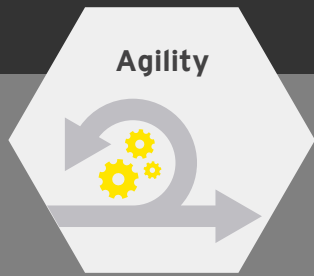


Economic forecasting



Launch planning

Next enabler ↘



Digital insurance enablers

Agility requires dynamic cross-functional collaboration to rapidly develop, efficiently launch and continuously enhance new products, experiences and technology.

The imperatives:

- ▶ Decreasing relevance of multi-year initiatives – often before they are released to consumers
- ▶ High costs, long timelines and wasted effort from traditional development
- ▶ Successful management of digital skills gaps by integrating teams across functions
- ▶ Faster speed to market and quicker time to value

The actions:

- ▶ Empower agile teams so that they are invested in digital vision and programs
- ▶ Break down product features into prioritized components
- ▶ Organize around multidisciplinary feature teams with the right digital expertise
- ▶ Identify and empower product owners who know business challenges and customer needs

The capabilities:



Personae development



Customer journey maps



Integrated teams



Product ecosystem



Rapid prototyping



Launch planning

Next enabler ↘



Digital insurance enablers

Workforce transformation must be a strategic priority with a focus on creating a highly adaptive “disruptor” culture capable of adapting to constant change.

The imperatives:

- ▶ Lack of interest among the new generation of younger people in joining the traditional insurance workplace
- ▶ Cultural and organizational struggles to embrace digital thinking, behavior or strategies
- ▶ Need for digitally oriented talent and new skillsets

The actions:

- ▶ Identify leaders with a digital mindset and train them on digital innovation
- ▶ Communicate innovative digital successes
- ▶ Grow advocates within the workforce to champion digital efforts
- ▶ Develop strategies to attract and retain scarce digital talent and millennials
- ▶ Accelerate re-skilling strategies to prepare the existing workforce to adapt to digital
- ▶ Continuously monitor and track the digital change adoption through culture surveys

The capabilities:



Clear
vision



Global digital
leadership



Clear
goals



Teaming
ability



Rapid
prototyping



Digital insurance enablers

Compelling omni-channel experiences represent a baseline for success in meeting customer expectations and winning critical “moments of truth.”

The imperatives:

- ▶ Loss of brand value and damaged customer relationships through poor digital touchpoints and experiences
- ▶ Failure to deliver quality and consistency across channels
- ▶ Cost savings from simplified processes
- ▶ Increased conversion and reduced churn

The actions:

- ▶ Link innovative experiences to operational processes and enabling technologies
- ▶ Design for the emotional dimension to effectively engage customers at key points in the journey
- ▶ Apply analytics to derive customer insights and design on the basis of a needs-based paradigm
- ▶ Track evolving digital and technology trends affecting consumer behavior, and continually enhance and redesign experiences

The capabilities:



Customer
journey maps



Personae
development



Stress testing
the user
experience



Capabilities
prioritization

Next enabler ➔



Digital insurance enablers

Traditional and digital analytics can be applied across the insurance value chain to generate highly relevant real-time insights and spark decisive actions.

The imperatives:

- ▶ Consumer expectations for personalized experiences and offers based on their unique needs
- ▶ Competitive advantage for any insurers that access and act on the wealth of new data
- ▶ The need for better, faster and more informed decision-making at all levels of the enterprise

The actions:

- ▶ Establish a data lake for scalable collection and management for all data types, with real-time access for right analysts
- ▶ Integrate analytics with decision engines to apply contextual factors to analytics-driven insights
- ▶ Deliver frontline insights using intuitive design principles to support adoption and usage
- ▶ Automatically track and feed back the outcome of each decision or action

The capabilities:



Data lake



External data sources



Rules-based automation



Real-time decision engine



Analytics models



Use case triggers



Digital insurance enablers

To meet evolving needs and rising expectations of digitally savvy consumers, digital insurers need fully flexible and modernized architectures and platforms.

The imperatives:

- ▶ Technology that supports speed and scale to enable rapid innovation cycles
- ▶ Superior real-time experiences with seamless integration of supporting technology
- ▶ Rapid obsolescence of technology that requires modularity in underlying architecture

The actions:

- ▶ Leverage technology advances via "platform-as-a-service"
- ▶ Create an enterprise platform team focusing on message broker, platform choices and DevOps stack
- ▶ Decompose applications to 12-factor-based independent micro-services
- ▶ Create a coexist strategy for architectural transformation to manage transition from current to future-state components

The capabilities:



High-speed
IT function



Customer-
centric thinking



Cloud-mobile-
social first



Managed
self-service



Micro-services
architecture

Next enabler ↘



Digital insurance enablers

Effective digital transformation is a large-scale enterprise effort, and thus requires proper governance along with strong ownership and solid processes for innovation.

The imperatives:

- ▶ Agile teams risk delivering incompatible outcomes without coordination and alignment.
- ▶ Digital's rapid forward pace requires teams to have easy access to empowered decision makers who can quickly resolve conflicts.
- ▶ Surrounding digital transformation with an optimal support structure and connective tissue is crucial to sustaining success.

The actions:

- ▶ Establish solid but flexible governance to quickly adapt to changing needs and goals
- ▶ Create clear ownership and accountabilities, and define the rules for issue escalation and resolution
- ▶ Embed digital governance into existing processes to make it part of business-as-usual operations
- ▶ Entrust decision-making to different levels of the organization to avoid bureaucratic bottlenecks
- ▶ Create cross-functional business-driven committees to manage core strategic assets and reinforce alignment and collaboration

The capabilities:



Digital vision



Investment priorities



Centralization models



Organizational empowerment



Partner and vendor management

Next enabler ↘



Digital insurance enablers

Digital insurers use digital and social tactics to share new value propositions, and activate consumers with personalized messaging and offers.

The imperatives:

- ▶ Proliferation of digital channels through which carriers must support consumers in the sales and service cycles
- ▶ Consumer dissatisfaction with brands that merely push content rather than actively, personally and meaningfully engage
- ▶ Emergence of social networks as the only channel where consumers learn about new products and features

The actions:

- ▶ Build a sense of purpose, provide incentives and nurture community
- ▶ Show genuine interest in consumer needs through compelling experiences and services
- ▶ Marshal cross-divisional capabilities and resources to satisfy full range of consumer needs
- ▶ Leverage data to gain insights about customers and how to effectively engage them
- ▶ Amplify UX through social communities and turn your "super users" into advisors

The capabilities:



Cross-channel
behavioral
insights



Customer-
centric thinking



Sense of
purpose



Communities
of interest



Advocacy
building

Next enabler ↘



Digital insurance enablers

Comprehensive cybersecurity can ensure appropriate security across integration and access points – but defenses are only as strong as the weakest link.

The imperatives:

- ▶ Need to protect customer data, a highly valuable corporate asset
- ▶ Severe financial and reputational impacts if customer data is compromised
- ▶ Rising sophistication of cyber criminals in breaching defenses via digital devices and integration points

The actions:

- ▶ Identify and document all data flows with third parties, and across systems and applications
- ▶ Perform security and vulnerability assessments on all internal and external applications used to collect, process, store and transfer customer information
- ▶ Define requirements for third parties, embed contractual obligations, establish clear SLAs and perform regular review of all controls
- ▶ Implement and test comprehensive incident response plans for data breaches

The capabilities:



Data and
application
security



Incident
response



Intelligence
and analytics



Third-party
management



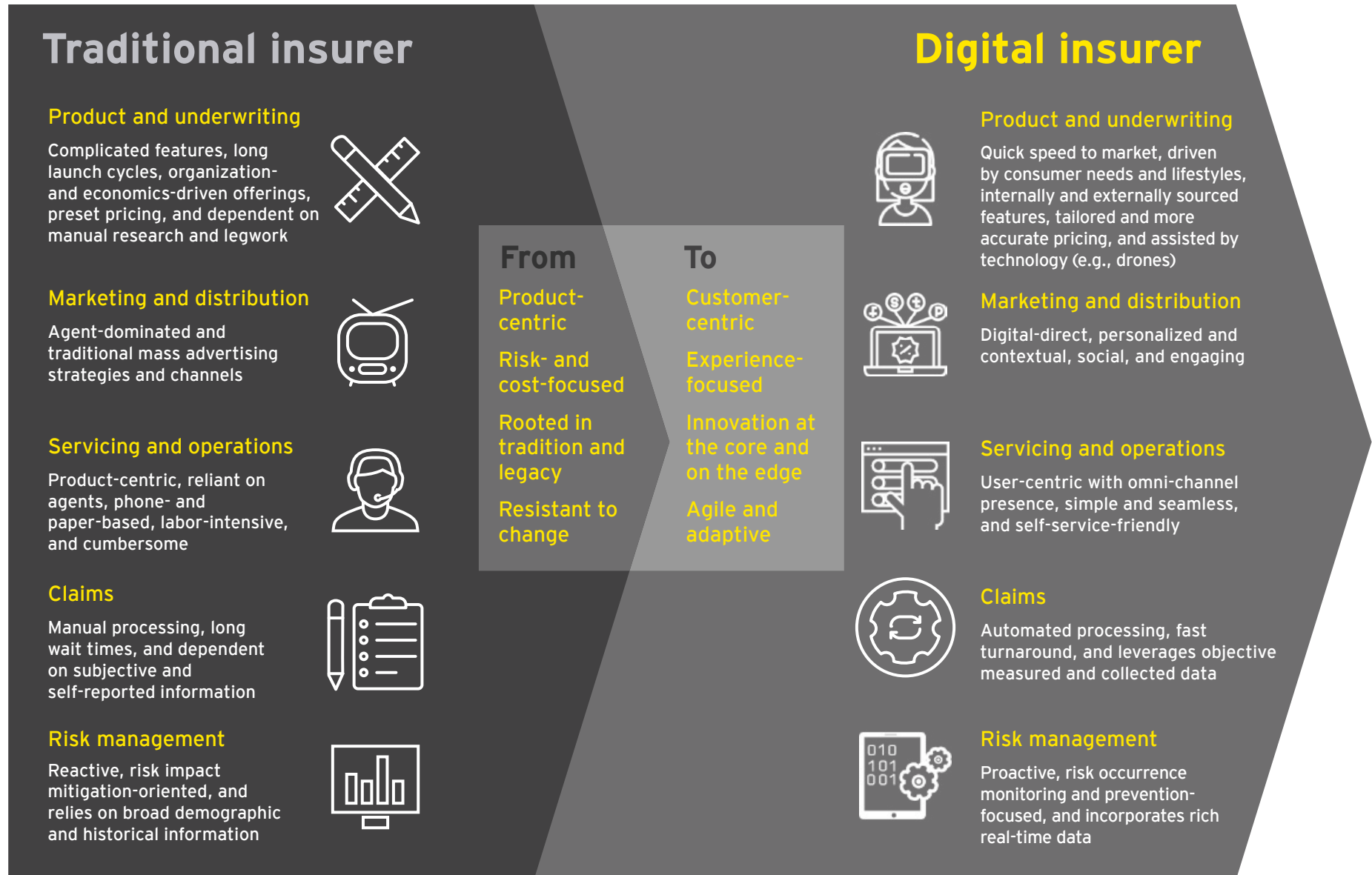
Cybersecurity
governance



Training and
education

The endgame: today vs. tomorrow

The insurer of the future will look, act and be structured very differently than today.



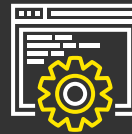
How EY can help insurers become digital insurers

EY's digital insurance offerings are designed to help create immediate value, help support future innovation and instill organizational agility for the long term.



Digital enterprise strategy

Core consulting and digital strategy formulation focused on increased revenue, stronger customer engagement, and lower operational costs – balanced with enhanced risk management and security



Rapid digital application development

Suite of vendor and alliance partnerships to enhance capabilities and tailor offerings, with EY Digital Studios to rapidly design, engineer, and launch experiences and applications



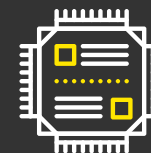
Insurance as-a-service platform

Core property and casualty operations platform – EY Insurance Nexus™ – with pre-configured and pre-integrated processes and technology for high-performance claims, policy, and billing functions



Digital insurance service bureau

Broad business and technology operations and support for aspects of a modern insurance enterprise



Digital insurance accelerators

More than 30 technology-enabled accelerators for common use cases with compelling value propositions to increase the pace of digital change

From the EY Innovation Center: deployment-ready use cases

EY has developed dozens of deployment-ready technology-enabled services so insurers can realize the art of the possible – and make digital transformation an operational reality across the enterprise.



Risk-based customer acquisition

A smarter and more cost-effective way to identify and engage new customers on the basis of satellite and publicly available data [More >](#)



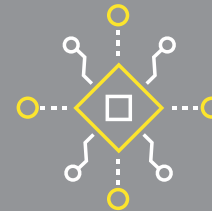
Intelligent cross-selling

Existing customers renewing policies online are led through quoting and purchase of additional policies by AI-driven chatbot [More >](#)



Wearables for worker safety

More precise and data-driven insight into workers' compensation exposure risk, help support smart policies [More >](#)



IoT loss prevention

Use of AI-driven chatbots for online policy renewal and quoting and sales of new or expanded policies [More >](#)



Automated claims with advanced telematics

A highly automated process for initiating, processing and paying claims with no human intervention [More >](#)



Blockchain peer-to-peer (P2P)

A new and secure way for insurers to engage non-traditional customers, and efficiently convert existing policies to P2P market [More >](#)



From the EY Digital Insurance Innovation Center

Use case: Risk-based customer acquisition



Business problem

- ▶ How do we bring down the cost of acquiring new customers, which is currently \$900-\$1,000 per?
- ▶ How do we gain better insight into the risks each prospect presents?



Business opportunity

- ▶ Targeted and proactive homeowner policy offers based on data-driven risk insights
- ▶ Streamlined and automated policy pricing and bundling
- ▶ Direct communications with agents and customers

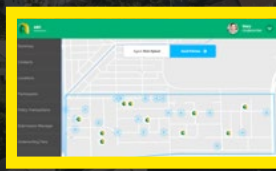


Mary
Policy
underwriter

Satellite data to show
condition of roofs

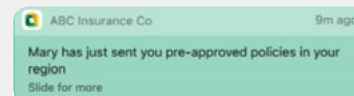


Targeting of homeowners in high
net-worth zip codes



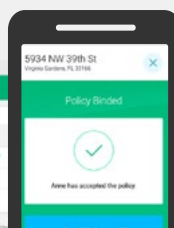
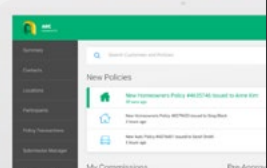
Rick
Agent

Streamlined communication
between underwriter, agent,
prospect and client

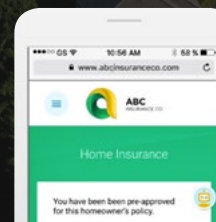


Rick
Agent

Automated acceptance
and binding



Anne
Client



Next use case ↘



From the EY Digital Insurance Innovation Center

Use case: Wearables for worker safety



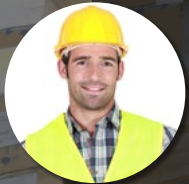
Business problem

- ▶ How do we know what covered employees actually do in the workplace?
- ▶ How do we manage workers' compensation exposure risk more precisely and with more frequent audits?



Business opportunity

- ▶ Dynamic workplace safety programs - enabled by data from wearables and employee portals
- ▶ Automated, weekly premium audits - enabled by robots
- ▶ Integrated and aggregated worker safety scoring and incentives - enabled by gamification



Telematics and sensor-enabled devices and wearables will capture risk data generated through people, equipment, material and the environment.

Dynamic worker safety data is aggregated within the risk-assessment process and used by underwriters to monitor and quantify risk in real time.

Employer gathers all the real-time data and can take actionable insights - effectively reducing injury rate while partnering more closely with a carrier to improve risk management.





From the EY Digital Insurance Innovation Center

Use case: Intelligent cross-selling



Business problem

- ▶ How do we gain insight into upsell and cross-sell opportunities with customers?
- ▶ How can we realize the capabilities to develop and distribute effective targeted offers?



Business opportunity

- ▶ Combine AI with mobile portals to engage customers who are renewing their policies
- ▶ Generate more revenue through targeted and timely offers



John
Insured

- ▶ Rich customer data and analytics to track life events
- ▶ Mobile platform for customers

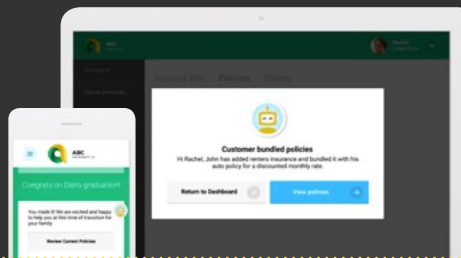
- ▶ Ability to rapidly launch bundled and personalized policies
- ▶ Underwriters platform



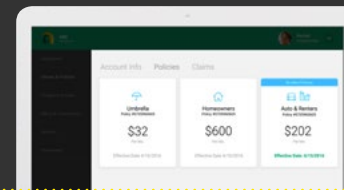
ABC
Insurance Inc.



Dan
John's son and
recent college
grad



- ▶ Automated transaction processing with AI bot



Abe
ABC's AI bot

Next use case ↘



From the EY Digital Insurance Innovation Center

Use case: IoT loss prevention



Business problem

- ▶ How do we proactively monitor commercial buildings and other structures for damage?
- ▶ Where can we simplify risk assessment and policy pricing?



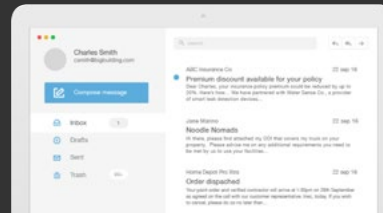
Business opportunity

- ▶ Intelligent sensors connected to the IoT that identify small threats



Charles
Commerical
building owner

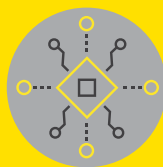
- ▶ Interested in premium discounts



- ▶ Granular data for customer targeting
- ▶ Packaged sale and support of smart IoT-based sensors
- ▶ Underwriter workstation
- ▶ Water monitoring system
- ▶ IoT and mobile app monitoring



ABC
Insurance Inc.



Sensors

- ▶ Monitor operations and alert owner to risks or events through connected app



Next use case ↘



From the EY Digital Insurance Innovation Center

Use case: Blockchain peer-to-peer



Business problem

- ▶ How do we develop products and processes to expand into the peer-to-peer insurance space?
- ▶ How do we capture non-traditional customers or offer event-specific policies?



Business opportunity

- ▶ Secure platform to launch peer-to-peer and community offerings
- ▶ Niche policies to entice new customers
- ▶ Differentiated service to boost retention



Jane
Food truck
owner

- ▶ Customer portal and mobile app integrated with blockchain smart contract platform



- ▶ Core processing platform to manage policy and billing transactions



- ▶ Robotic automated claims payout engine connected to blockchain



ABC
P2P, Inc.

Next use case ➡



From the EY Digital Insurance Innovation Center

Use case: Automated claims with advanced telematics



Business problem

- ▶ How do we engineer claims processing workflows to improve the customer experience?

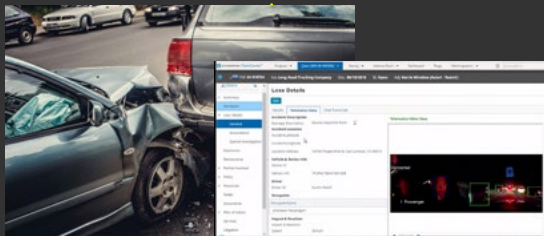


Business opportunity

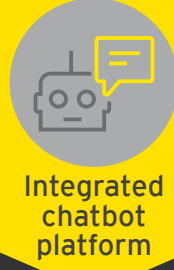
- ▶ Integrate advanced telematics data with core processing systems to communicate with customers via chatbot
- ▶ RPA extends from first notification of loss through to payment and claim settlement



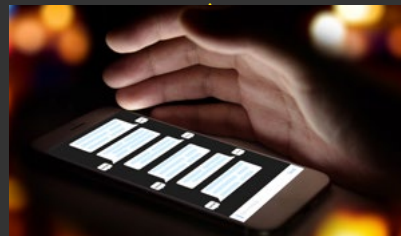
Advanced telematics data



- ▶ Advanced telematics data captured and downloaded from the cloud



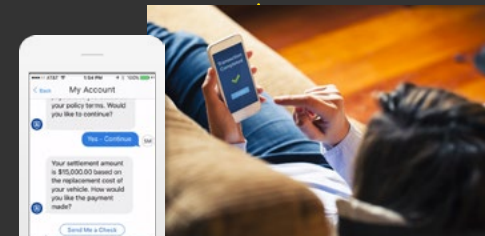
Integrated chatbot platform



- ▶ Automates claim workflow and interacts with claimant



Secure payment system



- ▶ Processes payments on the basis of chatbot triggers

EY is **ready to collaborate** with insurers on digital transformation programs that drive immediate value and set a strategic course to a highly automated, analytics-driven and highly innovative future.

The future belongs to the connected



Insurer



Business
ecosystem



Capabilities



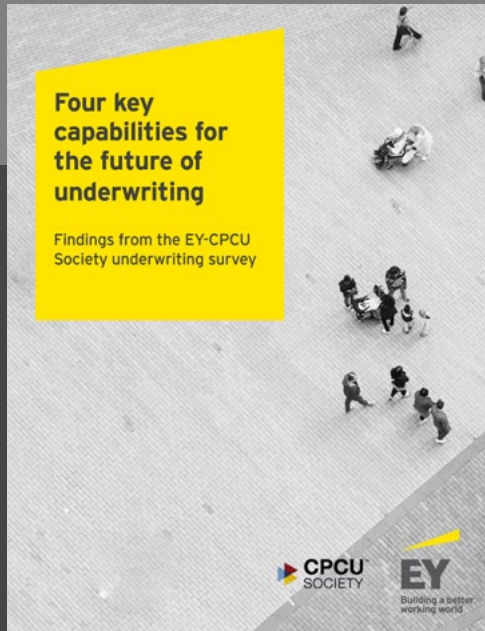
Partnerships

Learn more: Visit ey.com/digital_insurer ↘

Further reading



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