

Role of technology in driving transformation of the insurance industry – catalyst, driver, incubator?

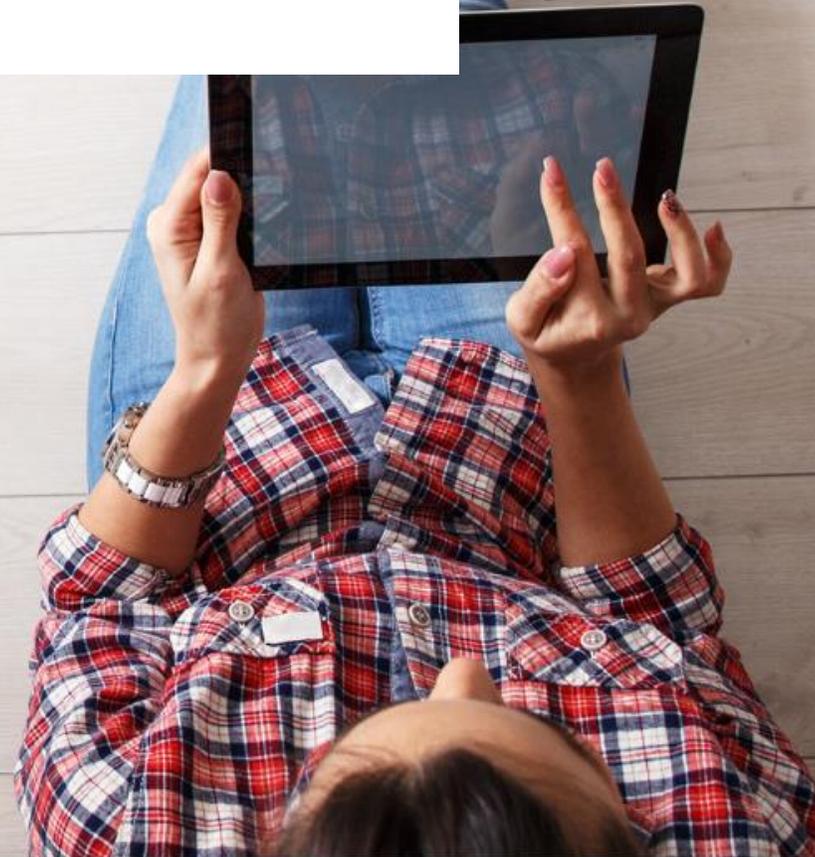
Paul Caputo

Leader Australia and New Zealand, Insurance Consulting and Technology

Kenneth McIvor

Director, Insurance Consulting and Technology

3 August 2018



Speaker introductions



Paul Caputo
Leader Australia and New Zealand,
Insurance Consulting and Technology

- Based in Sydney, Paul heads up Willis Towers Watson's Australian and New Zealand Insurance Consulting and Technology business.
- Paul has worked in a range of senior roles in the insurance sector in both Australia and Asia. His career of almost 30 years spans a broad range of roles and experience and includes Executive Directorships, Chief Risk Officer, Chief Actuary and Chief Financial Officer as well as establishing a life company in Asia.



Kenneth McIvor
Director,
Insurance Consulting and Technology

- Kenny is a life insurance consultant and qualified actuary with over 10 years of experience in the industry.
- Recently his work has involved discussing programs to improve the way that actuarial work is conducted within insurance organisations. Since being based in Sydney from late 2015 he has worked with a wide range of clients in Australia, New Zealand and Asia.
- In addition to his professional experience, Kenny has published research findings on a number of actuarial topics in various academic journals and has a PhD in genetics and insurance.

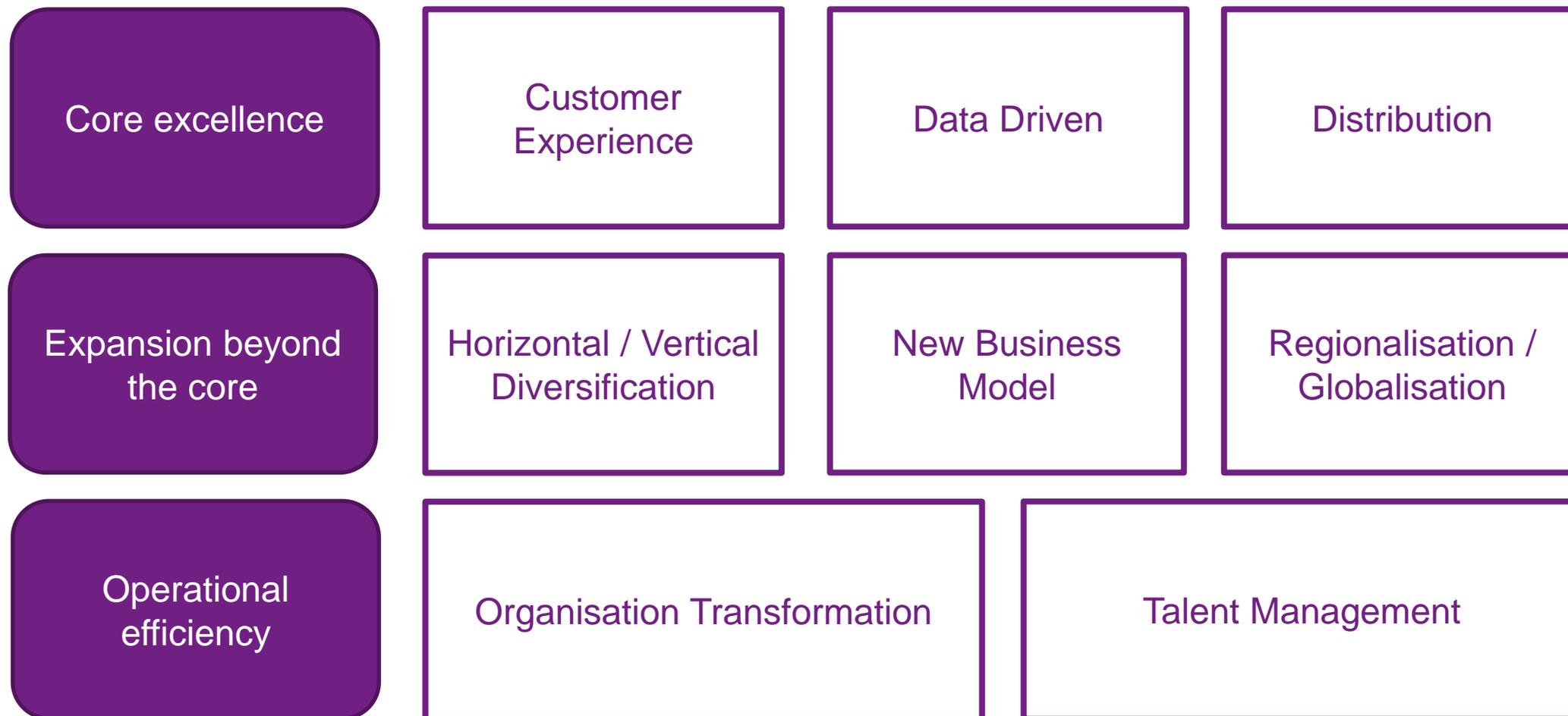
Content

Trends in FinTech

Applications of FinTech

Leveraging FinTech

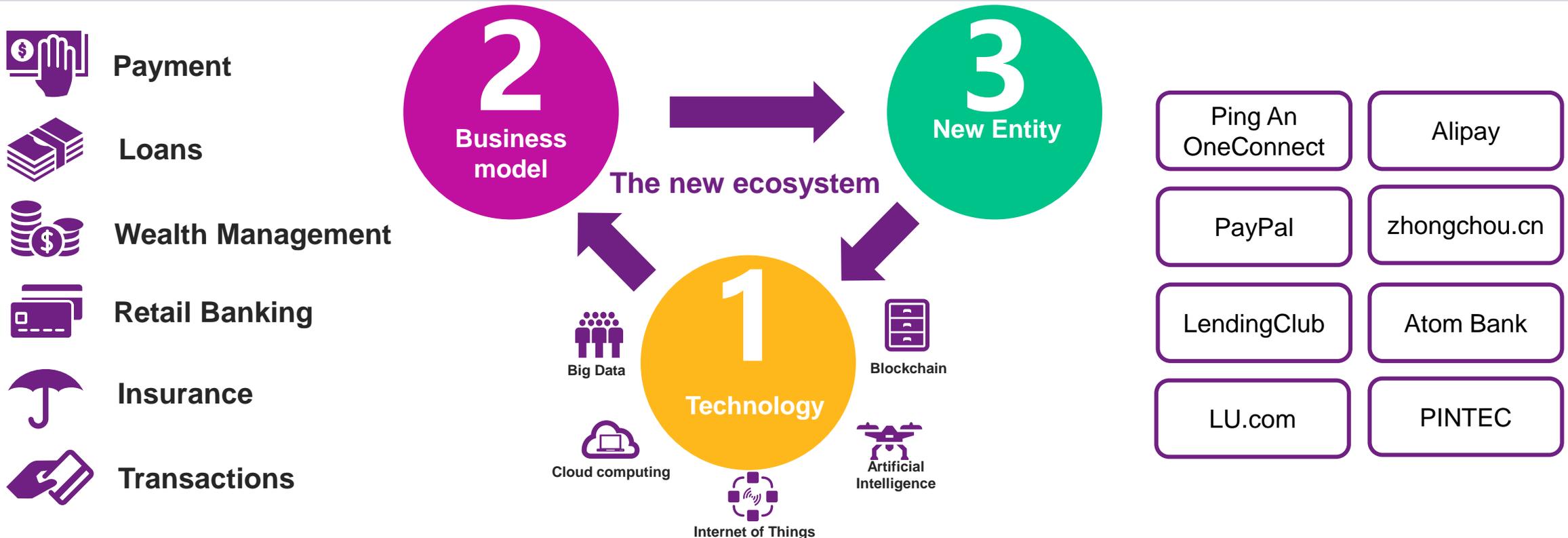
Technology is disrupting and transforming the insurance industry



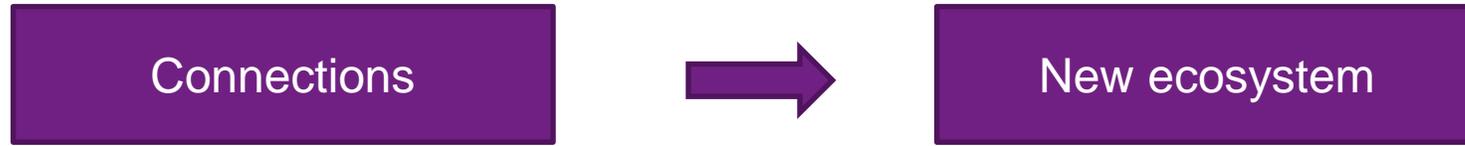
What is FinTech?

Two characteristics of FinTech as defined by FSB:

1. FinTech involves the use of innovative technologies for the provision of financial services.
2. FinTech has the potential to materially enhance, transform and/or disrupt business models, applications, regulatory oversight, processes or products.



FinTech 1.0 to 2.0



Efficient transactions



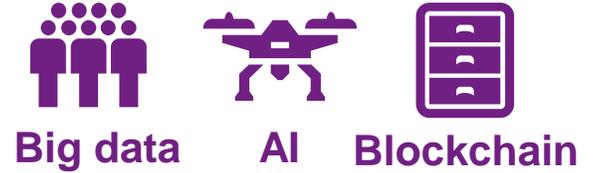
- Internet loan
- Internet crowdfunding
- Internet insurance
- Online payment
- Online banking

Next generation of financial services



- Digital currency
- Digital signature
- Digital transactions
 - Payment
 - Forex
 - Clearance

Effective asset management



- Robo advisor
- Supply chain finance
- Analyst robotics
- Smart credit
- IPO

Content



Trends in FinTech



Applications of FinTech



Leveraging FinTech

	Applications	Early adopters	Benefits
 Big data	Real-time pricing	Trov	Insurance on-demand
	Fraud detection	Allstate	Improve anti-fraud
	Closed Health Ecosystem	Vitality + Ping An Health	Cost control Improve customer loyalty
 AI	Intelligent insurance intermediary platform	Insurify	Cross-selling
	Robo advisor	Buyonic Insurance	Reduce staff cost
	Claim assessment	Fukoku Mutual Life Ant Financial	Improve efficiency Reduce cost
 IoT	UBI	Progressive State Farm	More competitive pricing
	UBI testing	Ping An Sunshine PICC P&C	Improve customer interface / experience
 Cloud computing	Quick policy processing	ZhongAn	Improve efficiency Shorten sales cycle
	Information infrastructure	Ping An CPIC	Improve information management
 Blockchain	Crypto token	Sunshine	Improve customer service
	Trading, clearance, credit check	Ping An (Group)	Reduce transaction cost
	BlockCloud	ZhongAn	Improve efficiency through smart contracts

Big data

76% of corporations said
would increase adoption
and use of big data.

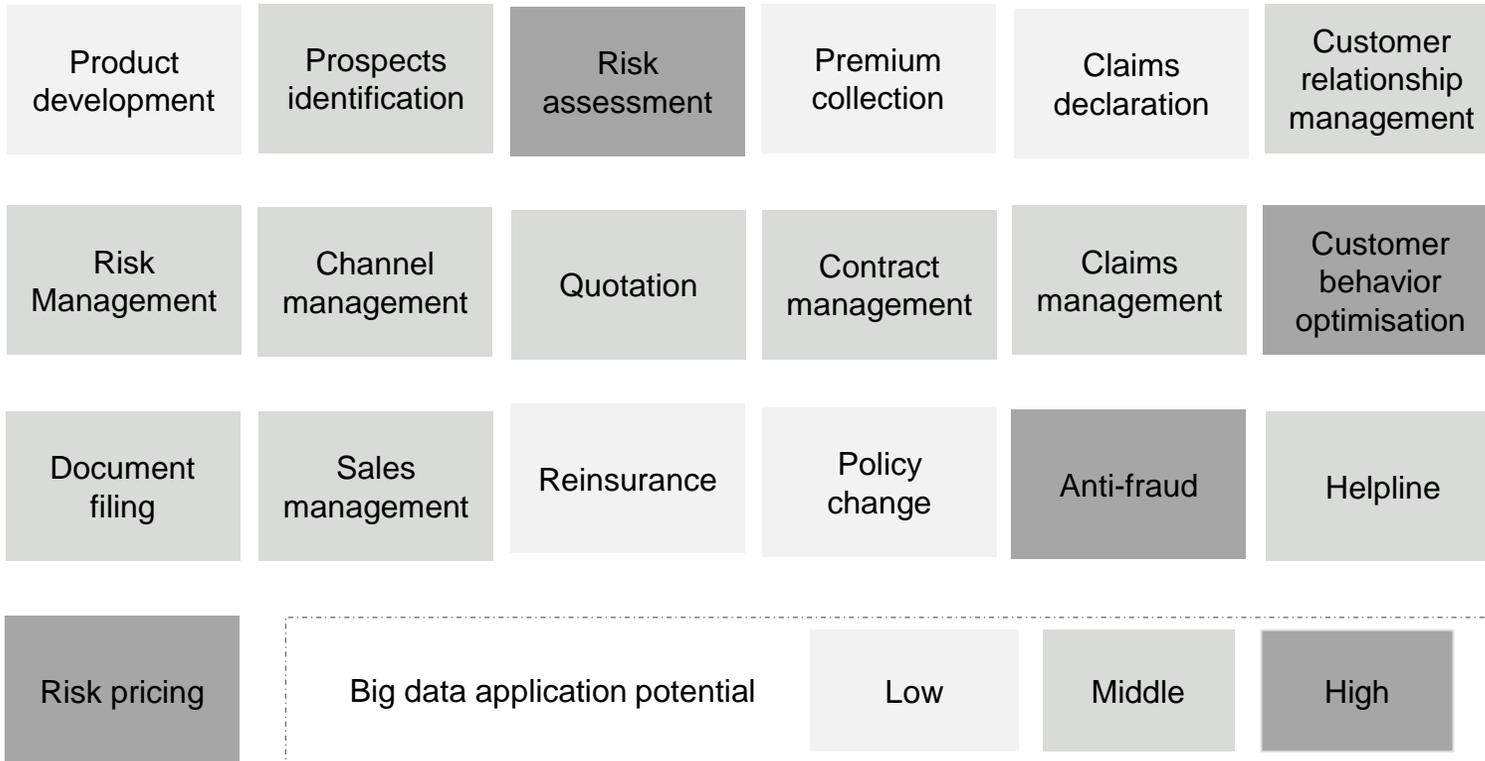
52% of corporations think
use of big data
will generate huge
business opportunities.

Only 23.5%
of corporations have a big data strategy.

Source: Forbes

Big data in insurance

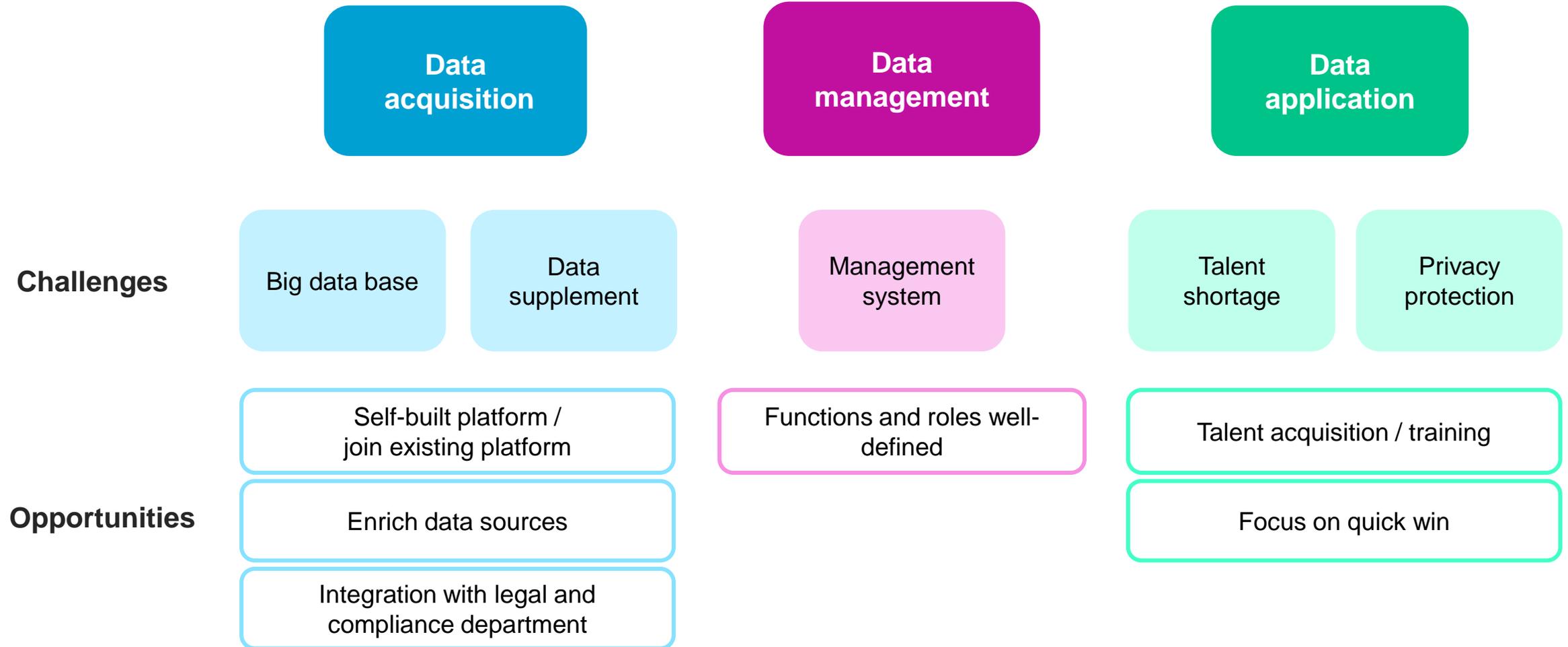
Applications



Benefits



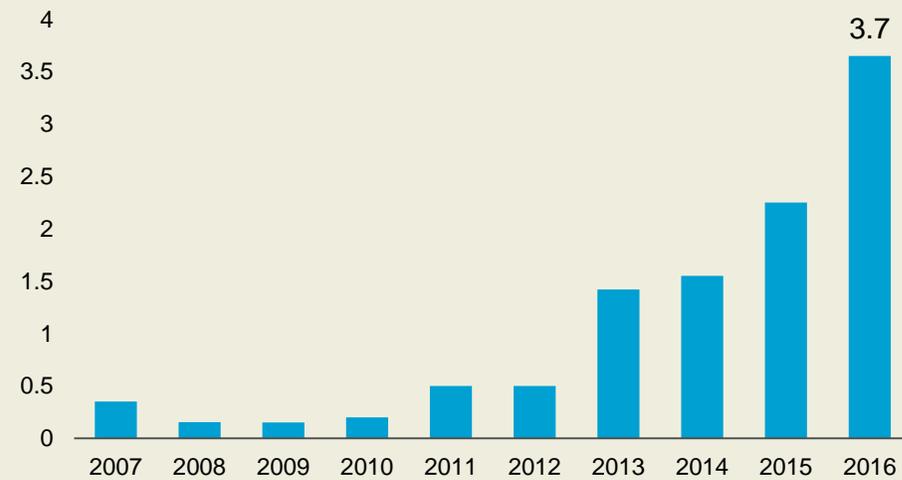
Big data – challenges and opportunities



Exponential growth and continuing

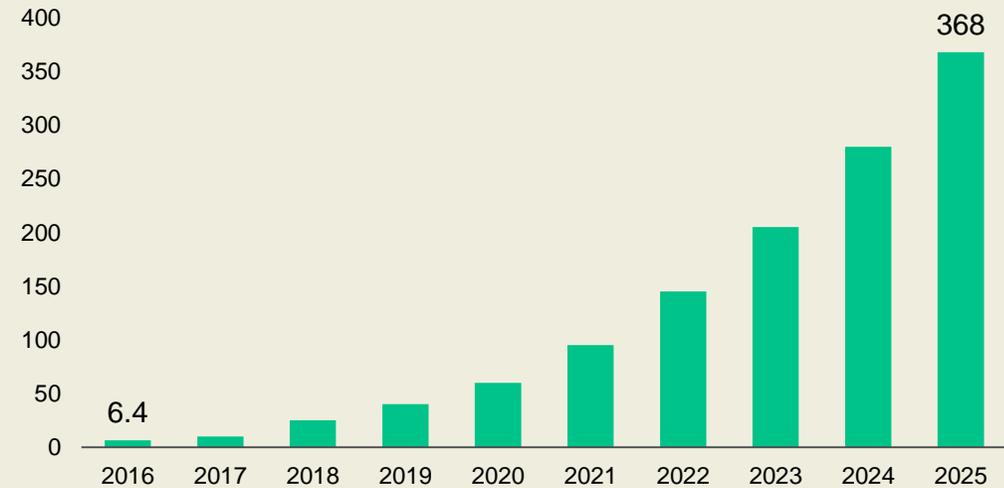
Funding in AI

Unit: USD ('00,000,000)



AI Market Size Forecast

Unit: USD ('00,000,000)



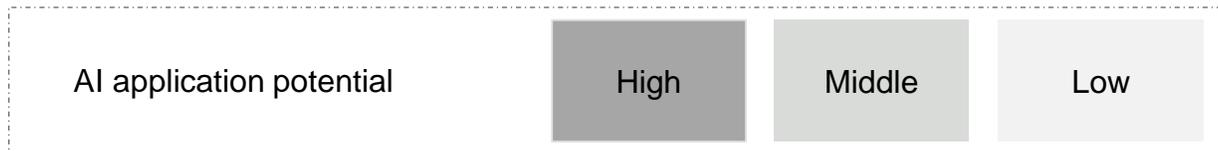
Source: Venture Scanner, Tractica

AI in insurance

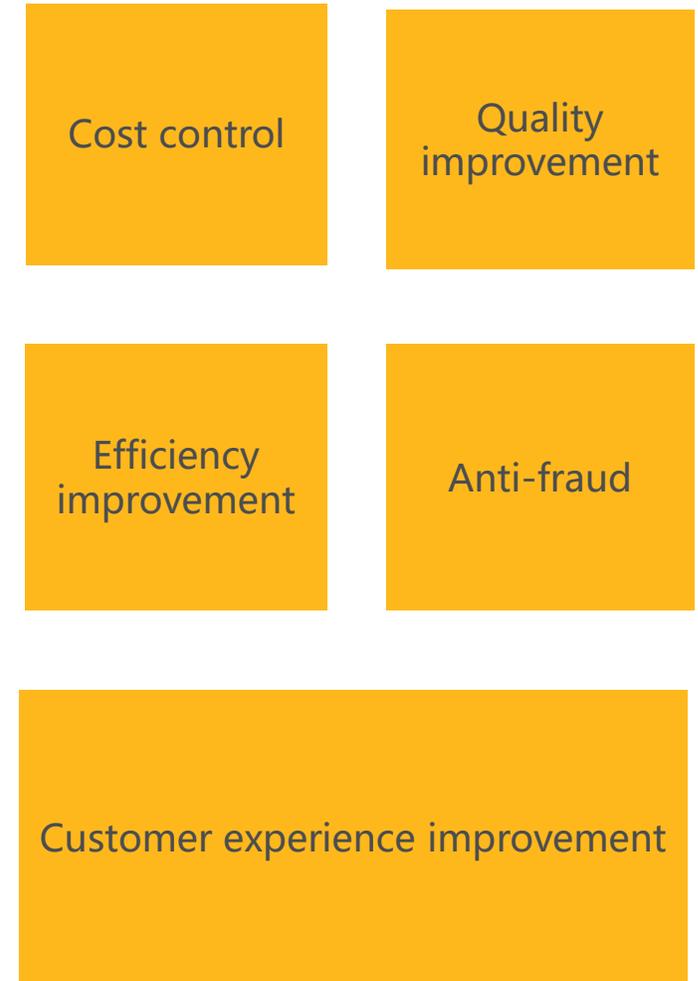
Applications



Competitive analysis	Potential customer interface	Price adjustment decision	Renewal	Risk warning	Intelligent customer interaction
Product and pricing decisions	Intelligent demand analysis	Intelligent underwriting	Policy changes	Intelligent claims	Intelligent service delivery
Regulatory & governance analysis	Intelligent product recommendation	Reinsurance	Customer enquiries	Anti-fraud	Customer behavioral intervention



Benefits



AI forecast

1 AI has begun to penetrate into the insurance industry, but usage is scattered.

- Improving efficiency, reducing operating costs; application in two key areas: sales and claims management

2 In the long term, AI will penetrate into the full value chain, and transform the industry from a labour-intensive model to a more automated model.

- High potential in changing the labour-intensive model, replaced by AI
- Reduce labor costs, but need to re-structure the organisation, re-define the roles and responsibilities
- Corporate and government both need to consider talent management – training, skill set up-grading...etc

3 Insurers should closely monitor AI development, consider strategic investment or develop their own platform.

IoT – applications are expanding

carrot REWARDING INSURANCE **Good driver = coupons**



Pricing	Improve claims management
Improve profitability	Customer service & interaction

StateFarm + Medical monitoring

Tech device for real-time monitoring, remote monitoring and alert



Allianz + Smart home

Tech device for real-time monitoring, notification to policyholders' mobile phones and Allianz when risk incidents occur

Blue Shield + Wearables

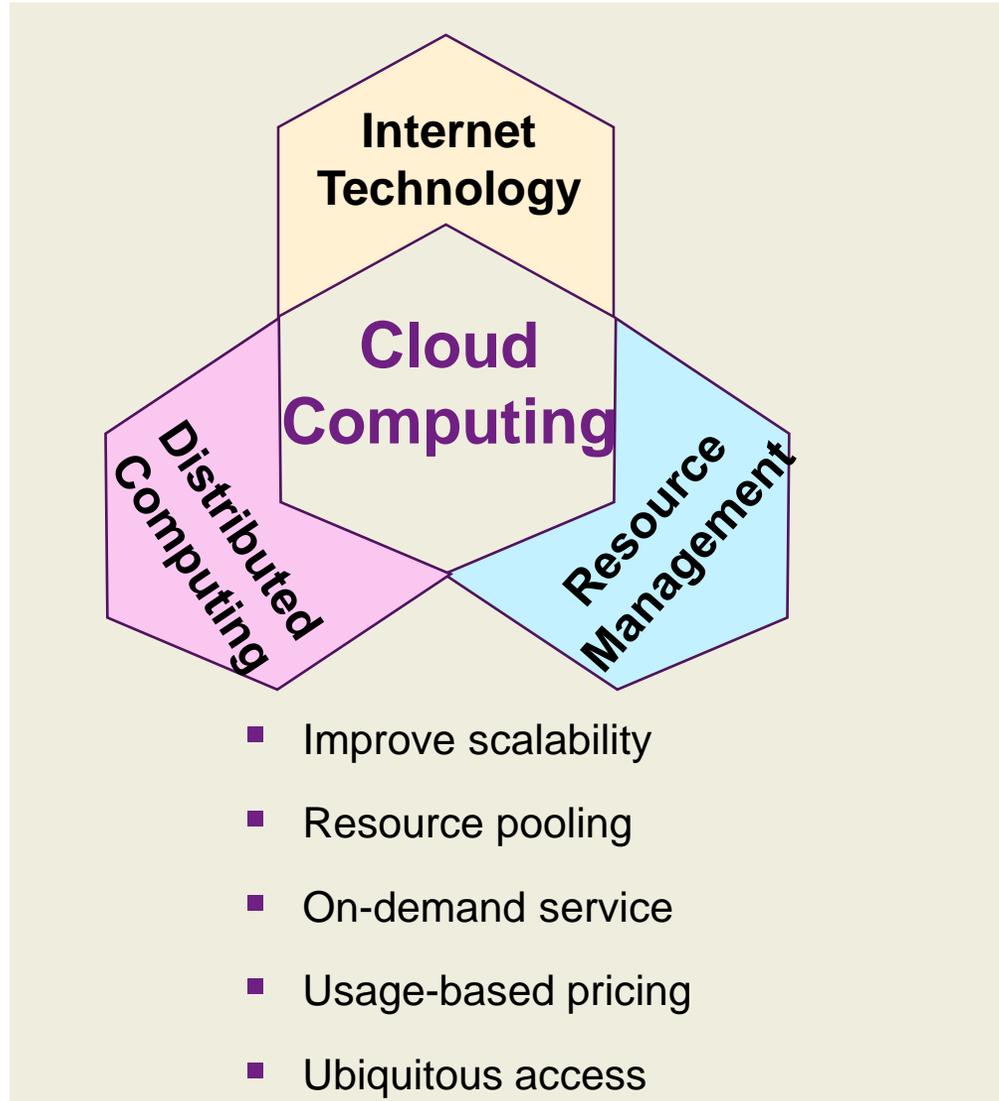
Track customer health data, reward customers achieving health goals



Key finding:

- **Win-win situation between insurers and customers**
- Improving customer experience, reducing premium
- Improving risk management, increasing customer interactions, hence loyalty

Cloud computing – resource optimisation key enabler for ZhongAn



ZhongAn Cloud Computing

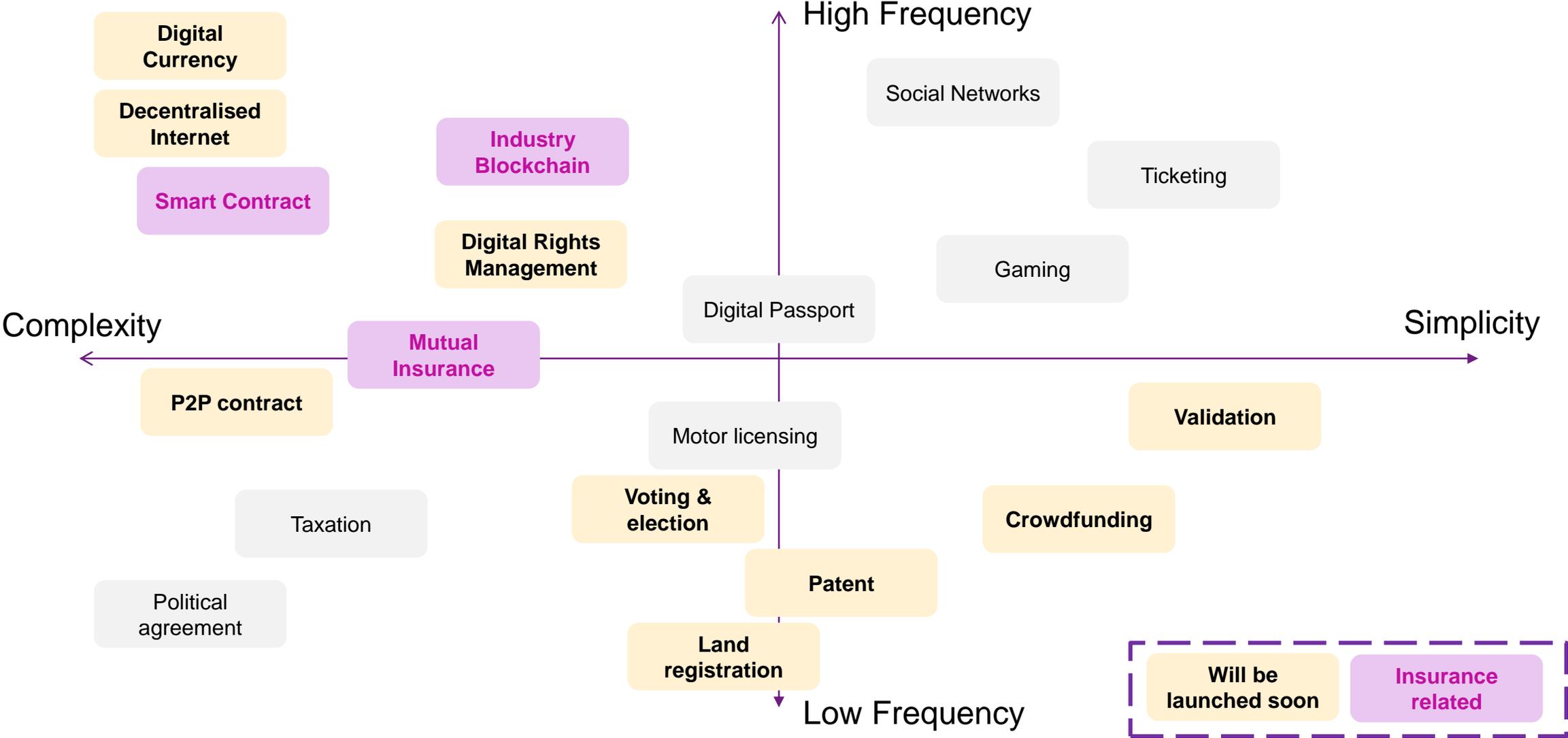
1
Quick and frequent transactions

3
Massive volume

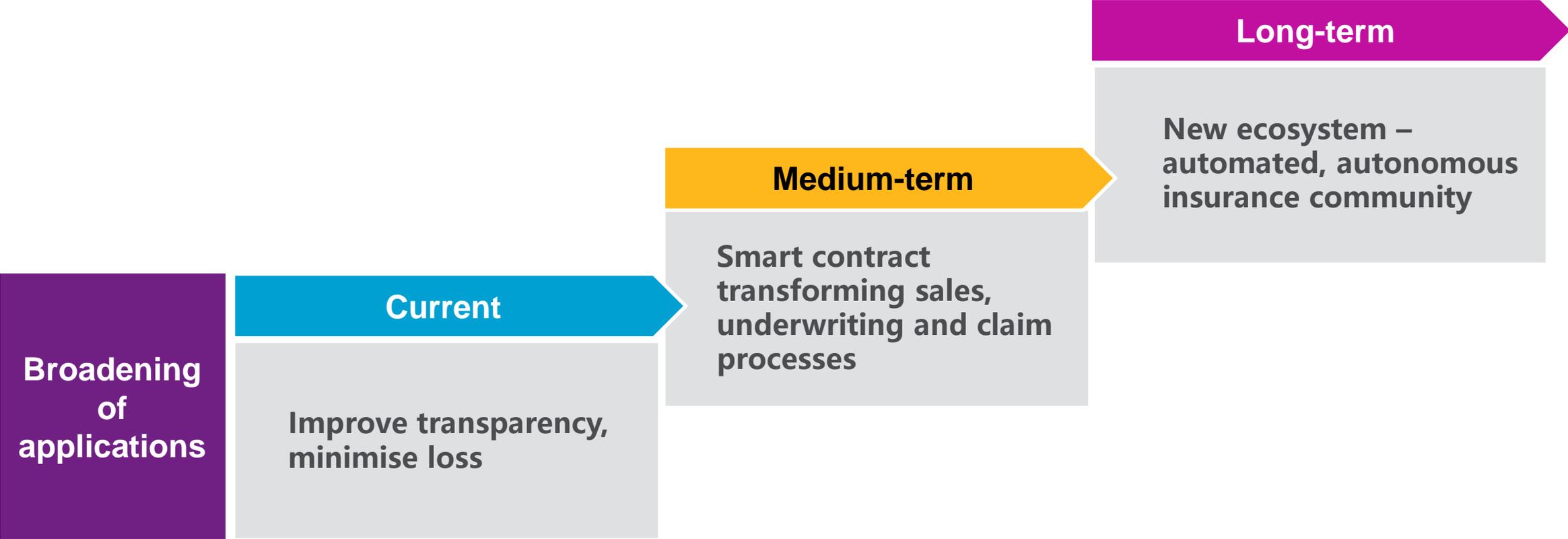
2
Strong connectivity

4
T+1
Asynchronous reporting

Blockchain in application



Blockchain applications are expanding in the insurance industry



Blockchain opportunities

Insurers

- Explore Blockchain applications, adopt new technologies, matching skill set

Alliance with insurers

- Form alliance to consolidate and share data

Alliance with non-insurers

- Improve data accessibility
- Digitise currency across industries to maximise collaboration and mutual business growth

Case to watch: How much is ZhongAn worth?



From a traditional insurer's perspective

- Motor insurance tariff below guideline
- Underwriting loss
- Over reliance on shareholder business??

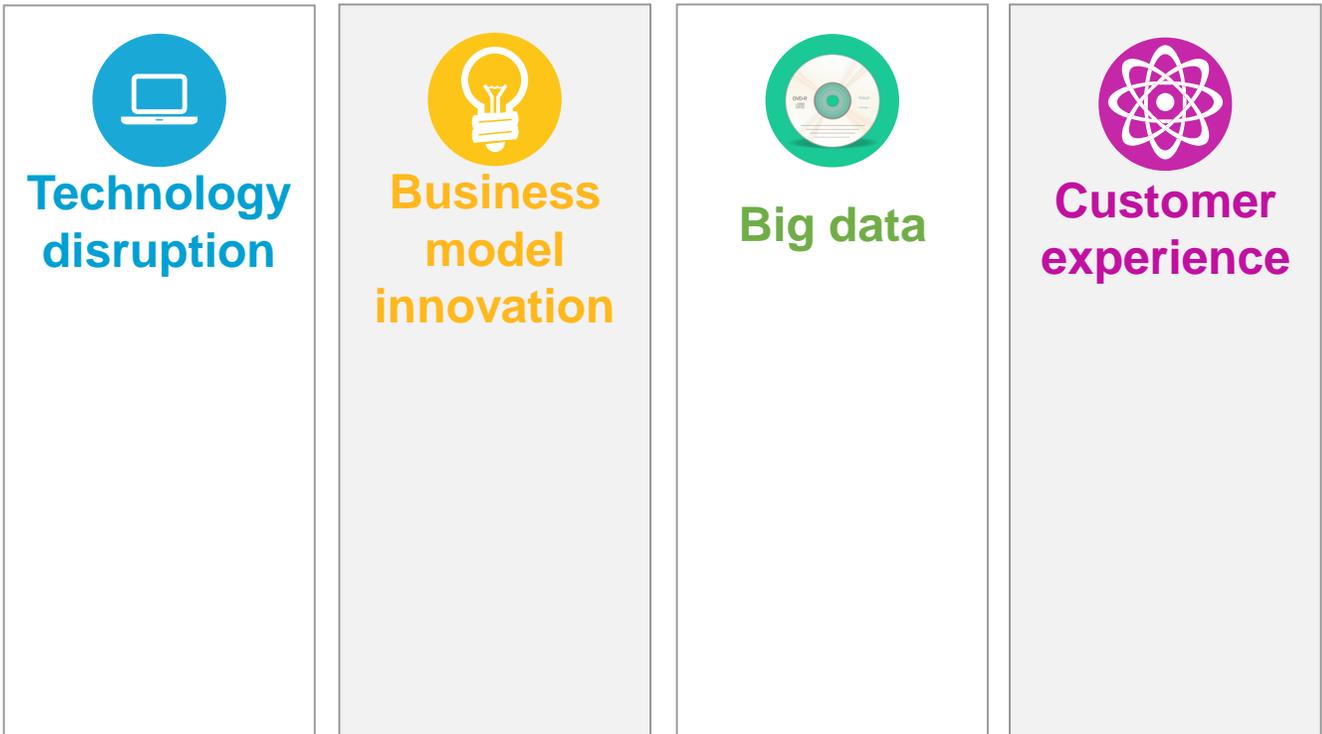
ZhongAn Insurance
(including ZhongAn Technology)
Approx RMB 68 billion in value

Financial Index	Ping An	PICC P&C	CPIC	ZhongAn Online
ROE	10%	9%	5%	0.10%
P/E	16x	10x	28x	6380x

From a FinTech company's perspective



The ZhongAn 4 pillars



Content

 Trends in FinTech

 Applications of FinTech

 Leveraging FinTech

Define the role of technology and how it will contribute to your vision



Goal 1:
Digitisation
upgrade



Goal 2:
Leader in the
applications of new
technologies such as
blockchain and AI



Goal 3:
Incubator for innovation and
business development for
both internal operations and
forming external alliance



AI



Blockchain



Cloud



Big Data

Financial institutions realise the importance of technology

Leading companies' positioning of technology gradually shifting from 'catalyst' to 'driver'

Citi

- In 2015, established **Citi Fintech department**, driving collaboration with FinTech companies
- Established **Citi Venture**, invested in 8 categories and a total of 23 FinTech companies in 5 years
- Introduced **Citi Accelerator**, launched Citi FinTech awards
- **Open up API**, promote Open Banking, set up Citi Developer to attract external developers

Ping An of China

Ping An Technology

- 4,000 IT experts
- RMB 7 billion yearly investment in AI technology, over 2,000 AI expert developers
- As of June 2017, applied for 1,458 patents in AI

Ping An's deep learning facial recognition technology up to a world-class level with over 100 applications

Number of calls
300 million+

Per minute processing
30,000

Daily recognitions
20,000

P&C

Issue time: 2hr -> **1min**

Banking

Online review: 5min -> **2s**

Loan

Daily business volume: 10k -> **50k**

Loan approval: within **5 minutes**

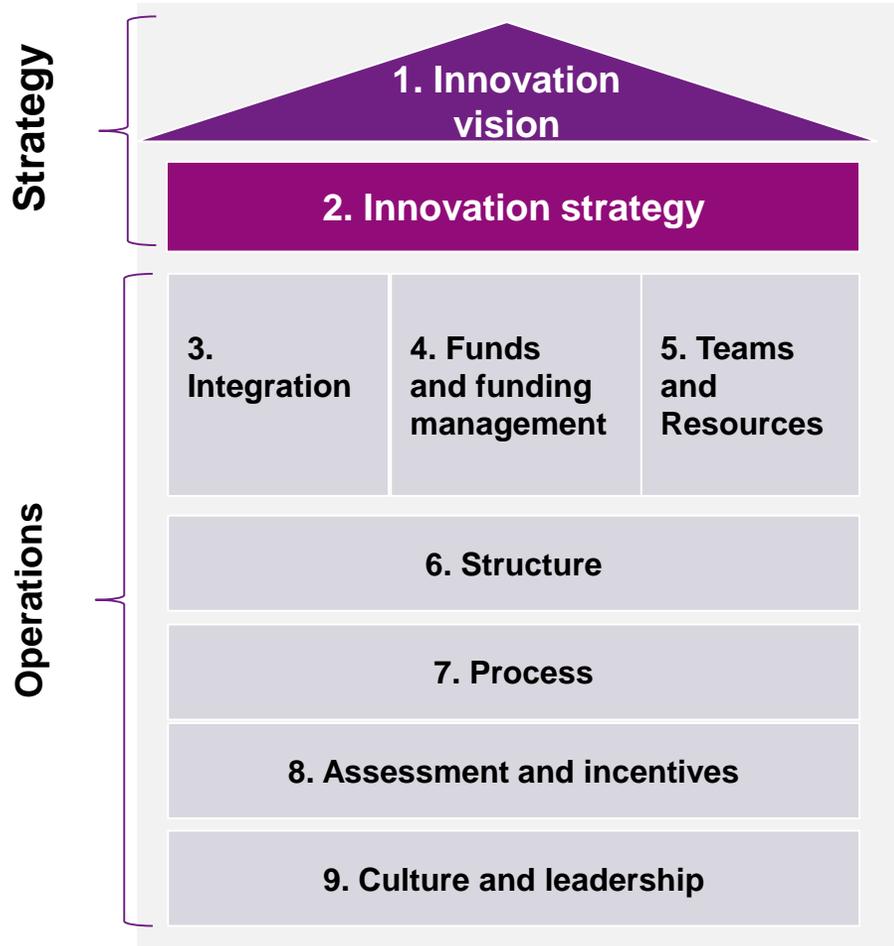
P2P

Account binding: 5min -> **1min**

ZhongAn – a complete ecosystem



Create an innovation system



	Module	Description
1	Innovation vision	<ul style="list-style-type: none"> Innovation vision and philosophy of the company
2	Innovation strategy	<ul style="list-style-type: none"> Goals Focus and priorities, scope Technology types and capabilities Increase success rate
3	Integration	<ul style="list-style-type: none"> Ideas management and implementations
4	Funds and funding management	<ul style="list-style-type: none"> Injection and withdrawal, consider social funding Innovation funding management
5	Teams and Resources	<ul style="list-style-type: none"> Build teams with optimal size and skill set Invest in necessary resources
6	Structure	<ul style="list-style-type: none"> Optimise structure (centralised / decentralised / mix) Clearly defined roles and responsibilities
7	Process	<ul style="list-style-type: none"> Design the processes
8	Assessment and incentives	<ul style="list-style-type: none"> Effective assessment, set tolerance of failure Effective incentive mechanism
9	Culture and leadership	<ul style="list-style-type: none"> Encourage entrepreneurship Empower innovation management teams, strengthen senior and middle level leadership

Implications for the actuarial profession

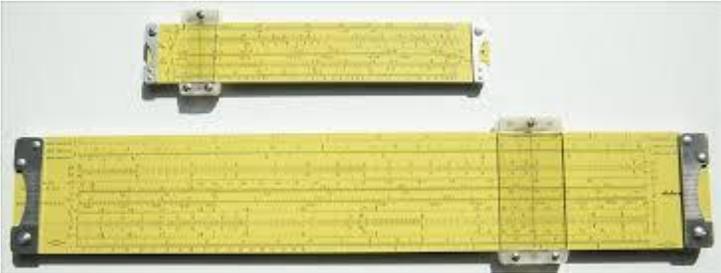
**Richer data,
higher precision,
automated / intelligent
platform**

**Improved efficiency
Lower cost**

**Routine / logistic work
replaced by technology**

**Actuaries need to be
multi-talented with strong
strategic and business
mindset**

Implications for the actuarial profession



Thank you

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