



สมาคมประกันวินาศภัยไทย  
Thai General Insurance Association



**Digital Insurance Bridge to 2020**

**17 II 17**

**Chuchai Vachirabanchong**

# WTO, AEC

GATT – General Agreement on Tariffs and Trade (1 Jan 1948)

APEC – ต้องการให้ APEC เป็นประชาคมที่มีการค้าและการลงทุนโดยเสรีสมบูรณ์แบบ (โดยไม่มีข้อกีดขวางใดๆทั้งสิ้น) ภายในปี ค.ศ. 2020

AEC – liberalisation by 2015 (Brunei, Cambodia, Indonesia, Malaysia, Philippines, Singapore and Viet Nam)

ASEAN Leaders declared that the ASEAN Economic Community (AEC) shall be the goal of regional economic integration by 2020.

[illegible]

Source: CEB Digital Enterprise 2020 Survey.



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**Thai General Insurance Association**

- Product Insurance  
(15 Companies)



- P2P Insurance (24 Companies)



Consumer Platforms  
(23 Companies)



- User Acquisition (28 Companies)



Insurance Investors  
(21 Companies)



- Reinsurance (12 Companies)

-Insurance Comparison/Marketplace  
(137 Companies)

## Insurance Technology

## Contact

[info@venturescanner.com](mailto:info@venturescanner.com)

to see all 535 companies

Insurance Infrastructure/Backend  
(108 Companies)



-Auto Insurance  
(76 Companies)



Health Insurance  
(63 Companies)



Enterprise Insurance  
(50 Companies)

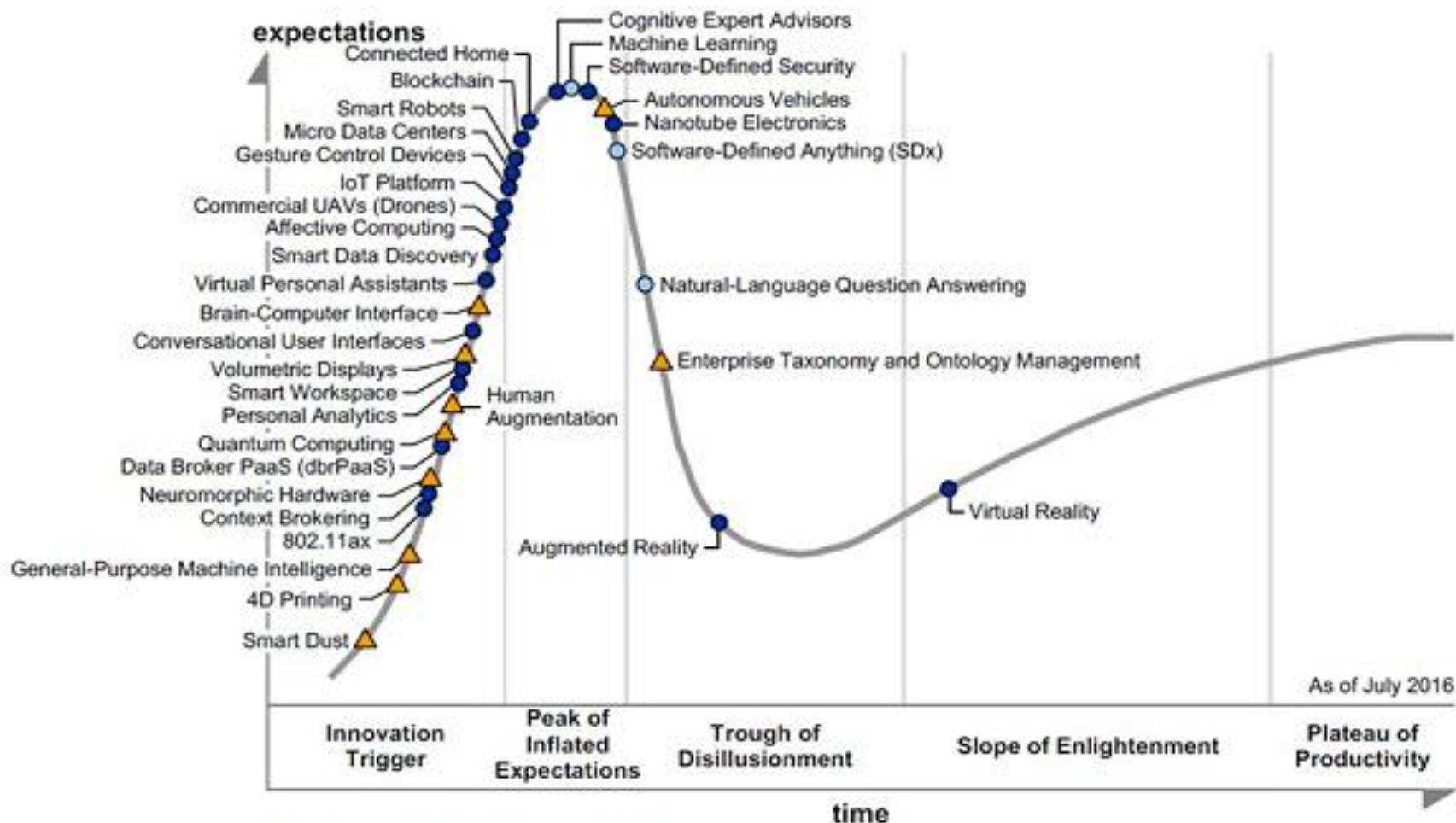


Life, Home Insurance  
(39 Companies)

Insurance Data  
(51 Companies)

## Venture Scanner





**Years to mainstream adoption:**

○ less than 2 years

○ 2 to 5 years

● 5 to 10 years

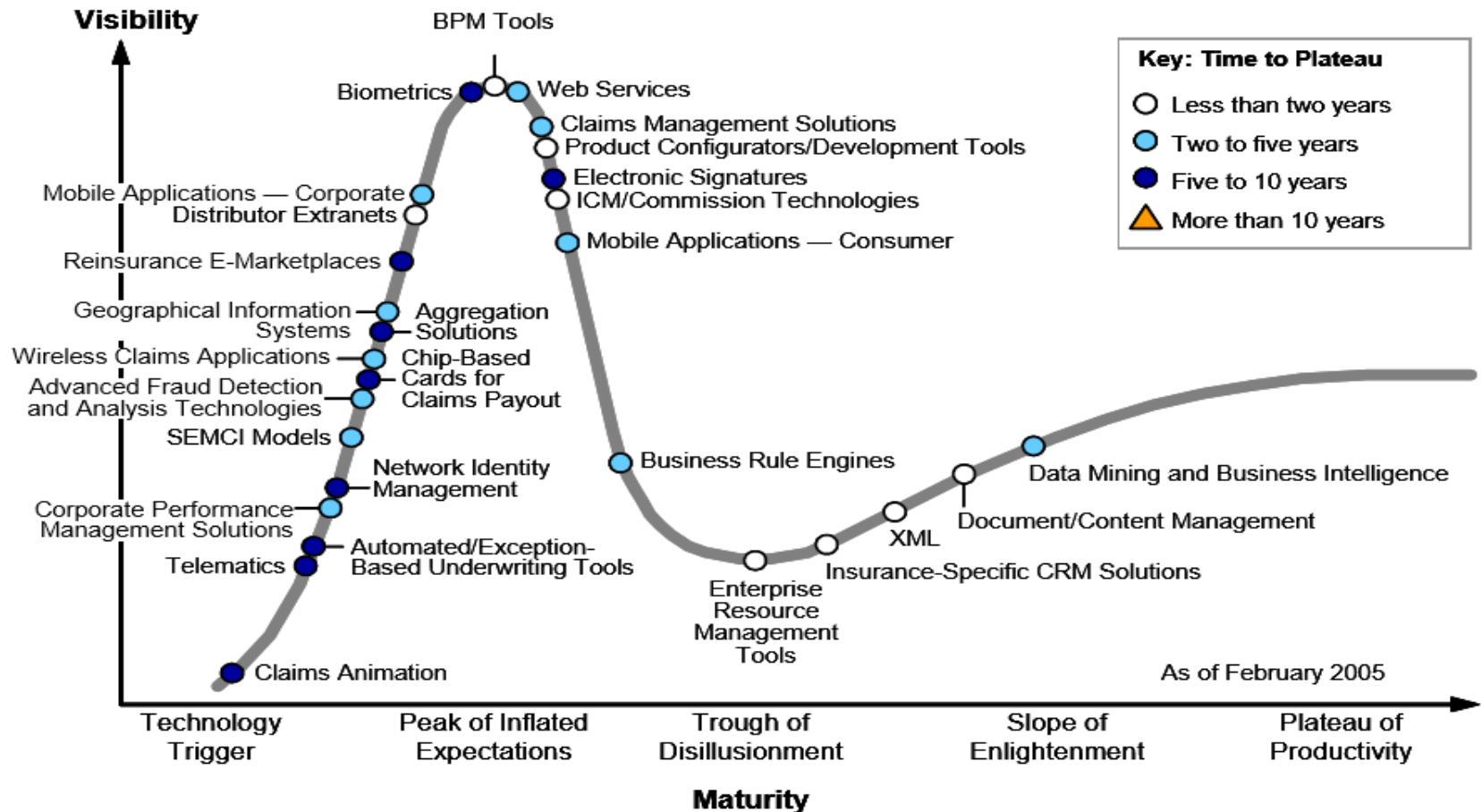
▲ more than 10 years

obsolete

⊗ before plateau



Figure 1. Hype Cycle for Insurance Technologies, 2005



**Acronym Key**

**BPM** business process management  
**CRM** customer relationship management

**ICM** incentive and compensation management  
**SEMCI** Single Entry Multiple Company Interface



### Gartner Hype Cycle Digital Insurance Trend 2013

#### On the Rise

P&C Insurance App Stores  
Web-Based Sales Platforms  
Peer-to-Peer Insurance Business Models  
Real-Time Operational Intelligence  
Big Data  
Digitalization  
Gamification  
Case Management Solutions  
Customer Experience Management  
Next-Generation Portals  
Agency CRM SaaS  
Agent Portal Solutions  
Aerial and Digital Imagery  
eEG7 Standard  
Underwriting Workstation  
Microinsurance Solutions  
Insurance Data Models  
P&C Insurance Policy Administration/Management SaaS  
Takaful Solutions  
Modular Core Solutions  
P&C Insurance BPO  
Customer Communications Management Solutions

### Gartner Hype Cycle Digital Insurance Trend 2014

#### On the Rise

P&C Insurance App Stores  
Pricing Optimization Solutions  
Peer-to-Peer Insurance Business Models  
Web-Based Sales Platforms  
Video Chat  
Cross-Channel Analytics  
Gamification  
Quantified Self  
Augmented Reality Applications  
Automobile eCall  
Big Data  
Customer Experience Management  
Loyalty Marketing  
Virtual Assistants in Insurance  
Case Management Solutions  
Data Science  
Internet of Things in Insurance  
Social Analytics  
Crowdsourcing  
Aerial and Digital Imagery  
Agent Portal Solutions  
Mashups  
Wearable User Interfaces  
Digitalization  
Analytical In-Memory DBMS  
Digital Marketing



Gartner Hype Cycle Digital Insurance Trend 2015  
On the Rise

Artificial Intelligence  
P&C Insurance App Stores  
Commercial UAVs (Drones) for Insurance  
Connected Home  
Multichannel Sales Platforms  
Pricing Analytics  
Autonomous Vehicles  
Billing as a Service (BaaS)  
Peer-to-Peer Insurance Business Models  
Real-Time Operational Intelligence  
Gamification  
Customer Experience Management  
P&C Data Platforms  
Underwriting Workstation  
Aerial and Digital Imagery  
Big Data  
Case Management Solutions  
Microinsurance Solutions  
Takaful Solutions  
Agent Portal Solutions

Gartner Hype Cycle Digital Insurance Trend 2016  
On the Rise

Microservices  
Smart Machines  
Software-Defined Architecture  
Digital Data Services  
Blockchain  
Design Thinking  
Commercial UAVs (Drones)  
IoT Platforms  
Pricing Analytics  
Video Chat  
Multichannel Sales Platforms  
Data Science  
Loyalty Marketing  
Augmented Reality Applications  
Gamification  
Virtual Assistants  
Quantified Self  
Customer Experience Management  
Peer-to-Peer Insurance Business Models





# SMACIT: Disrupting your business

Social

Mobile

Analytics

Cloud

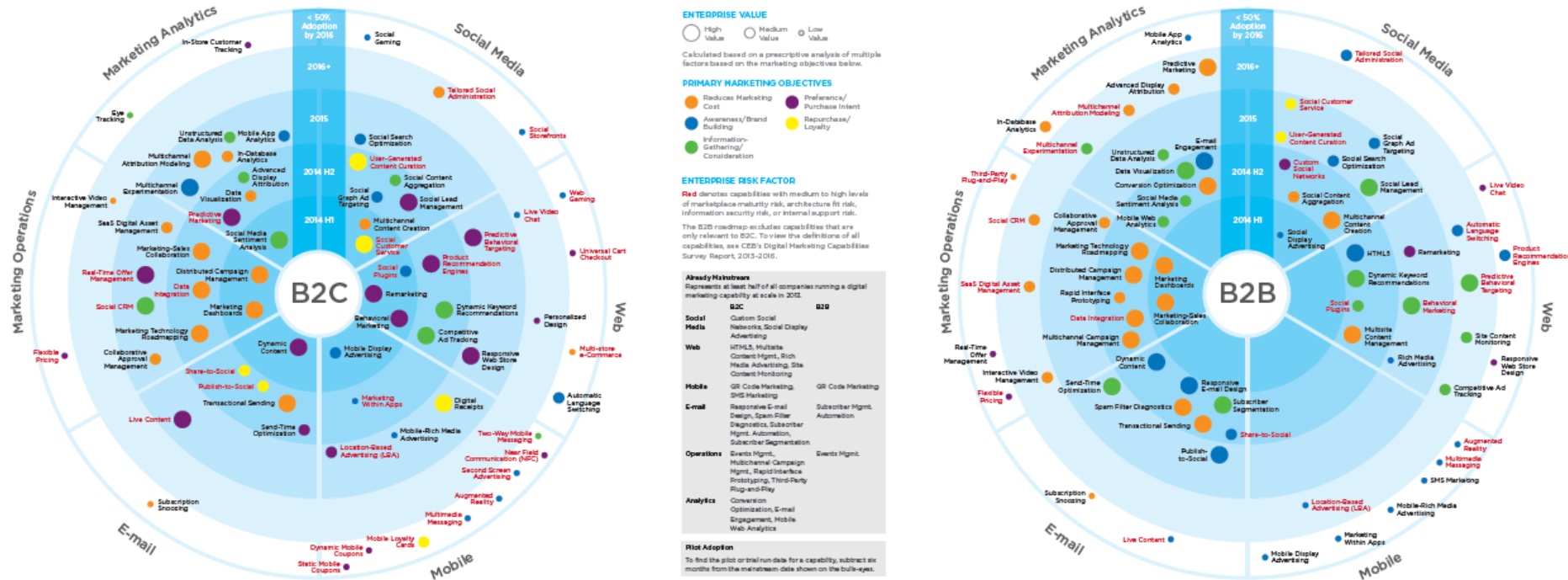
Internet  
of Things



## Digital Marketing Capabilities Roadmaps, 2013-2016

IT and Marketing Leaders at More Than 100 Organizations Worldwide Benchmarked the Adoption of 96 Digital Marketing Capabilities

Capabilities by Mainstream Adoption Timeline, Value, and Primary Marketing Objective





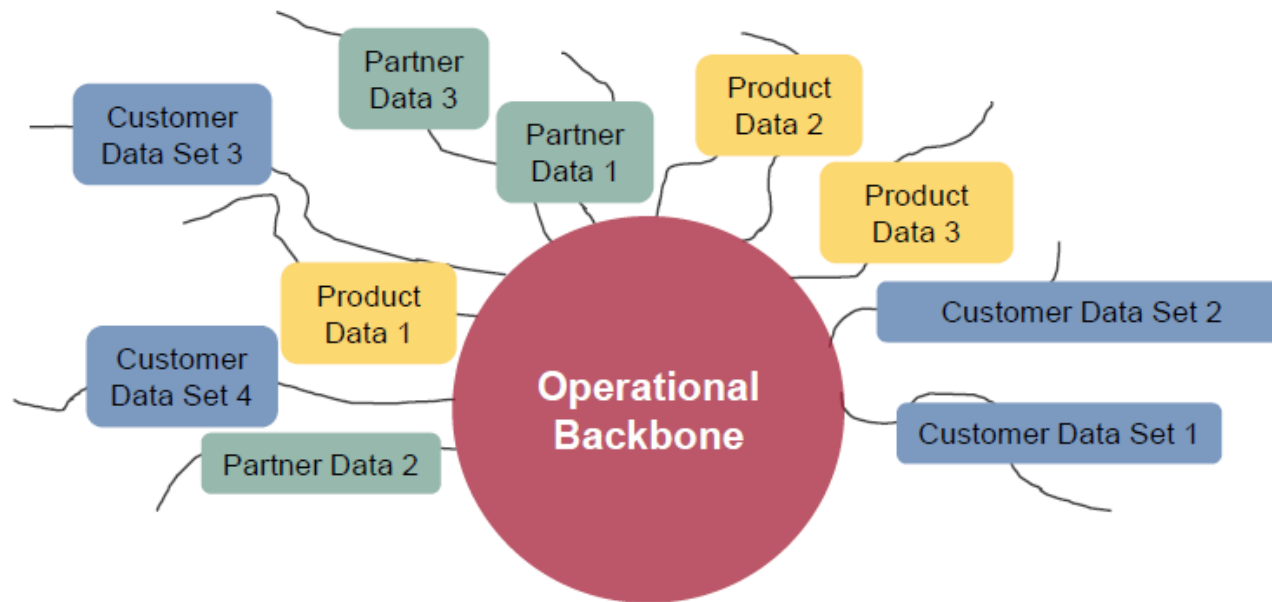
## MARKETERS FACE A PROFUSION OF DIGITAL MARKETING CAPABILITIES

### Representative List of Digital Marketing Capabilities

Digital Channels	Mobile	Web	Social	E-Mail
	<ol style="list-style-type: none"> <li>1. Augmented Reality</li> <li>2. Dynamic In-Game Marketing</li> <li>3. Dynamic Mobile Coupons</li> <li>4. Location-Based Advertising (LBA)</li> <li>5. Marketing Within Apps</li> <li>6. MMS Marketing</li> <li>7. Mobile Display Advertising</li> <li>8. Mobile Loyalty Cards</li> <li>9. Mobile Rich Media Advertising</li> <li>10. Near Field Communications (NFC)</li> <li>11. QR Code Marketing</li> <li>12. Second Screen Advertising</li> <li>13. SMS Marketing</li> <li>14. Static In-Game Marketing</li> <li>15. Static Mobile Coupons</li> <li>16. Two-Way Messaging</li> </ol>	<ol style="list-style-type: none"> <li>17. Automatic Language Switching</li> <li>18. Behavioral Marketing</li> <li>19. Competitive Ad Tracking</li> <li>20. Dynamic Keyword Recognition</li> <li>21. HTML5</li> <li>22. Live Video Chat</li> <li>23. Multiplayer Web Gaming</li> <li>24. Multisite Content Management</li> <li>25. Persistent Web Gaming</li> <li>26. Predictive Behavioral Targeting</li> <li>27. Rich Media Advertising</li> <li>28. Site Content Monitoring</li> <li>29. Social Plugins</li> <li>30. Web Gaming</li> </ol>	<ol style="list-style-type: none"> <li>31. Custom Social Networks</li> <li>32. Multichannel Content Creation</li> <li>33. Social Content Aggregation</li> <li>34. Social Customer Service</li> <li>35. Social Display Advertising</li> <li>36. Social Gaming</li> <li>37. Social Graph Ad Targeting</li> <li>38. Social Lead Management</li> <li>39. Social Search Optimization</li> <li>40. Tailored Social Administration</li> <li>41. User-Generated Content Curation</li> </ol>	<ol style="list-style-type: none"> <li>42. Dynamic Content</li> <li>43. Live Content</li> <li>44. Publish-to-Social</li> <li>45. Responsive E-Mail Design</li> <li>46. Send-Time Optimization</li> <li>47. Share-to-Social</li> <li>48. Spam Filter Diagnostics</li> <li>49. Subscriber Management Optimization</li> <li>50. Subscriber Segmentation</li> <li>51. Subscription Snoozing</li> <li>52. Transactional Sending</li> </ol>
Supporting Capabilities	E-Commerce	Marketing Operations	Marketing Analytics	<p>↑</p> <p>← Marketers are experimenting with hundreds of digital marketing capabilities to reach their objectives.</p> <p>→</p> <p>To view the definitions of these digital marketing capabilities, see the Appendix on pp. 82-90.</p>
	<ol style="list-style-type: none"> <li>53. Digital Receipts</li> <li>54. Flexible Pricing</li> <li>55. In-Stream Payments</li> <li>56. Multistore E-Commerce</li> <li>57. Personalized Design</li> <li>58. Product Recommendation Engines</li> <li>59. QR Code Offers</li> <li>60. QR Code Payments</li> <li>61. Real-Time Offer Management</li> <li>62. Remarketing</li> <li>63. Responsive Store Design</li> <li>64. SMS Payments</li> <li>65. Social Storefronts</li> <li>66. Universal Cart Checkout</li> </ol>	<ol style="list-style-type: none"> <li>67. Collaborative Approval Management</li> <li>68. Data Integration</li> <li>69. Distributed Campaign Management</li> <li>70. Events Management</li> <li>71. Interactive Video Management</li> <li>72. Marketing Dashboards</li> <li>73. Marketing Technology Roadmapping</li> <li>74. Marketing-Sales Collaboration</li> <li>75. Multichannel Campaign Management</li> <li>76. Rapid Interface Prototyping</li> <li>77. SaaS CRM Solutions</li> <li>78. SaaS Digital Asset Management</li> <li>79. Social CRM</li> <li>80. Third-Party Plug-and-Play</li> </ol>	<ol style="list-style-type: none"> <li>81. Advanced Display Attribution</li> <li>82. Conversion Optimization</li> <li>83. Data Visualization</li> <li>84. E-Mail Engagement</li> <li>85. Eye Tracking</li> <li>86. Google Big Query</li> <li>87. In-Database Analytics</li> <li>88. In-Memory Analytics</li> <li>89. In-Store Customer Tracking</li> <li>90. Mobile App Analytics</li> <li>91. Mobile Web Analytics</li> <li>92. Multichannel Attribution Modeling</li> <li>93. Multichannel Experimentation</li> <li>94. Predictive Marketing</li> <li>95. Social Media Sentiment Analysis</li> <li>96. Unstructured Data Analysis</li> </ol>	

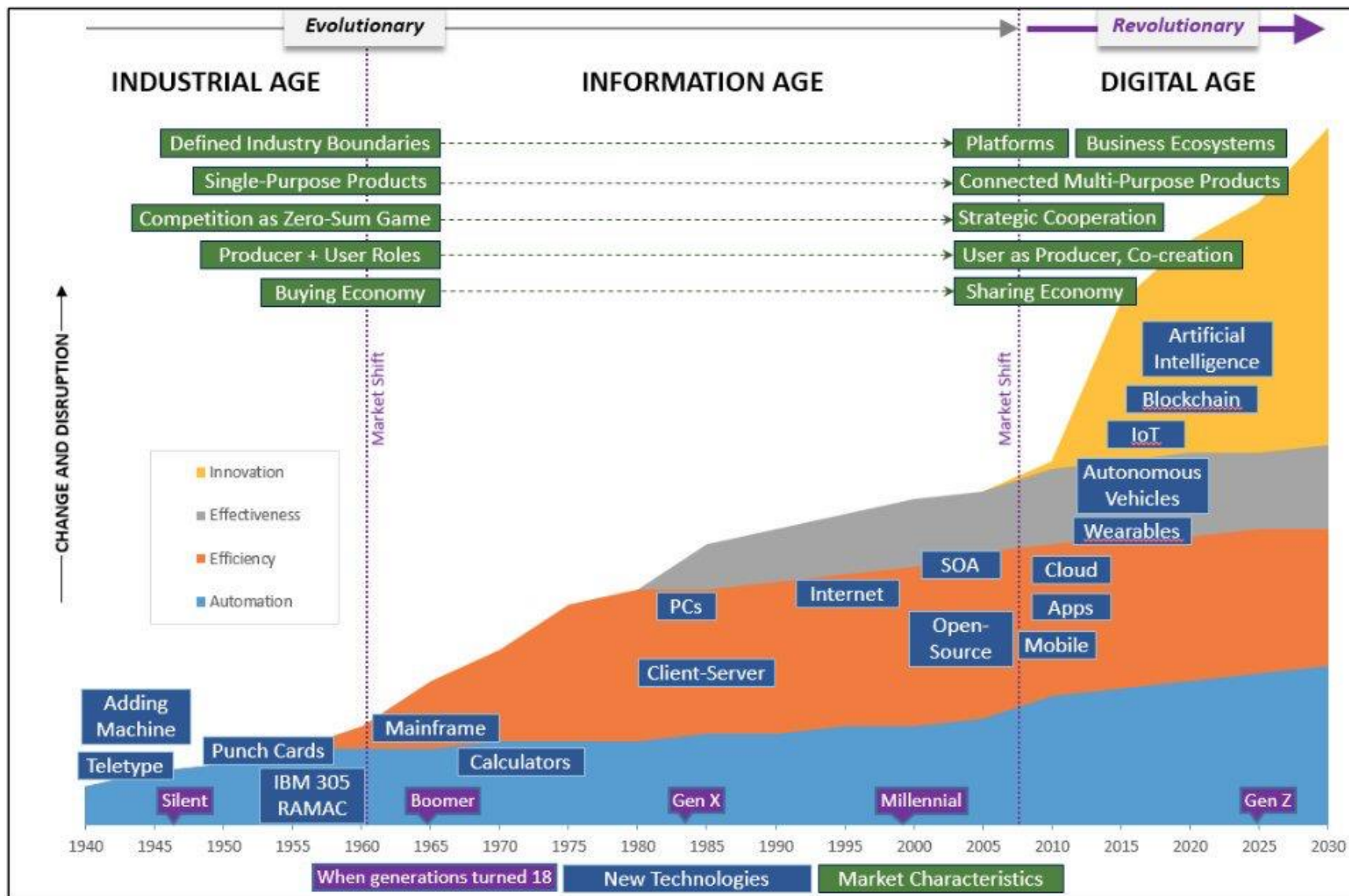


## Companies appear to build silos of connectivity instead of a digital services platform



*What are the implications of this approach to APIs?*









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# Digital Strategy





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MIT CISR Annual Research Forum

## Transforming Your Business: How Big Old Companies Become Digital



## The digital economy is driving organizational redesign



Divide &  
Conquer

In the pre-digital economy  
we architected for *efficiency*

In the digital economy  
we architect for *agility*

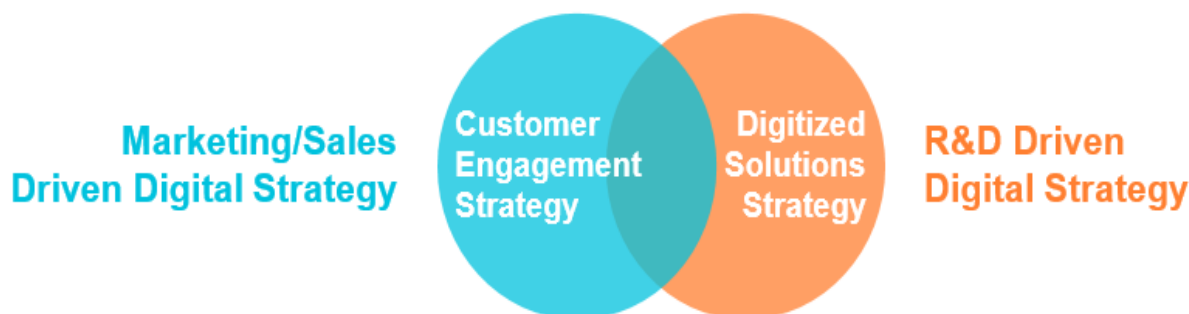
Empower  
& Partner



*How do we design for agility?*



## The outcomes to expect from a successful digital strategy



**Seamless** across all channels and **consistent** across sales and servicing ›

**Responsive** to changes in customer expectations ›

Engages customer in a **personalized** relationship, differentiated by customer segments, supported by deep **insights** ›

Connects customer with related **community** when desired ›

**Differentiated** from customer experience at competitors ›

› **Integrated** to provide a customer solution

› **Responsive** to emerging opportunities in the market

› **Enriched** with meaningful information and insights

› Seamlessly includes **partner** products and service as appropriate

› **Differentiated** from competitor products

***Companies tend to have neither or both of these sets of outcomes.***



## An operational backbone is table stakes for your digital strategy





## Execution of digital strategy depends on digital capabilities



Source: Ross et al, "Designing Digital Organizations,"  
MIT CISR Working Paper No. 406, March 2016.





## A digital services platform grows organically

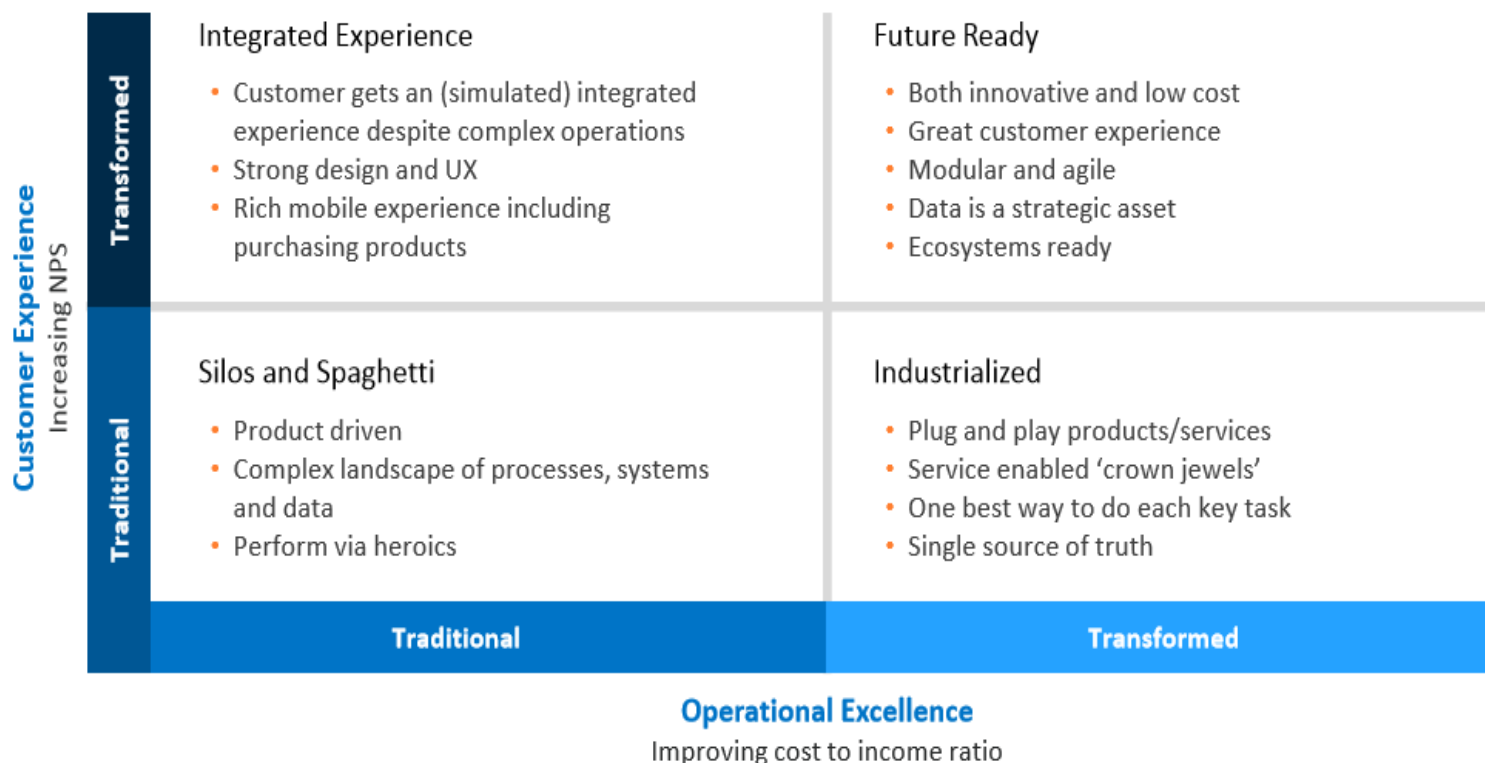


**The digital services platform is like a coral reef**

- › Facilitates rapid innovation and responsiveness to new market opportunities
- › Incorporates repositories of data for analytics and analytics engines
- › Includes a store/catalog of digital components like apps, microservices, partner offerings

*Can you architect a digital services platform (i.e., a coral reef)?*

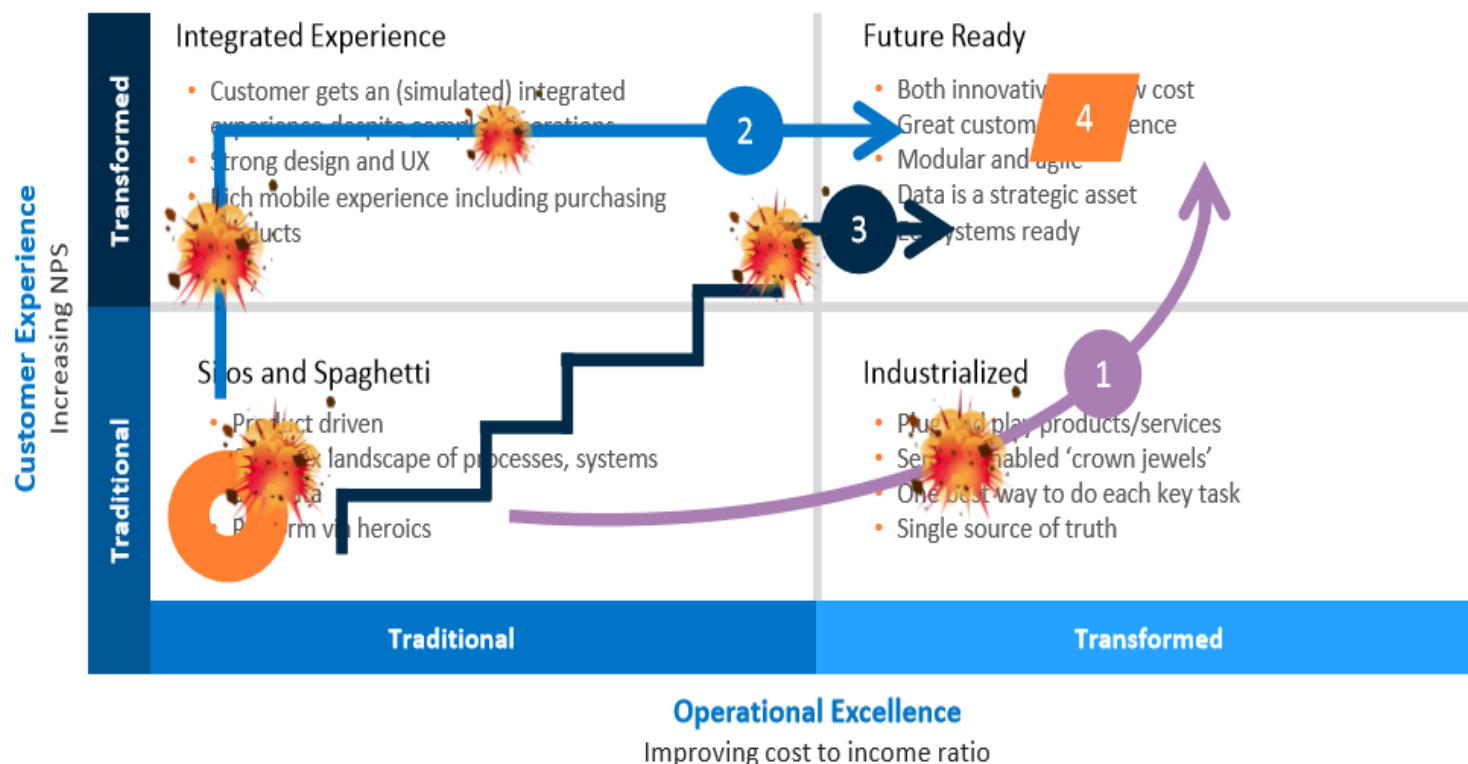
# What is digital business transformation?



Source: MIT CISR 2015 CIO Digital Disruption Survey (N=413 and 2016 interviews) and 2016 company interviews. Customer Experience=effectiveness on customer knowledge+omnichannel capability+customer experience projects+customer experience performance. Operational Excellence=effectiveness on automation and employee productivity projects+% of core capabilities with APIs+cost of operations performance. Quadrants are splits at 2/3 along each axis.



## The four pathways to Future Ready

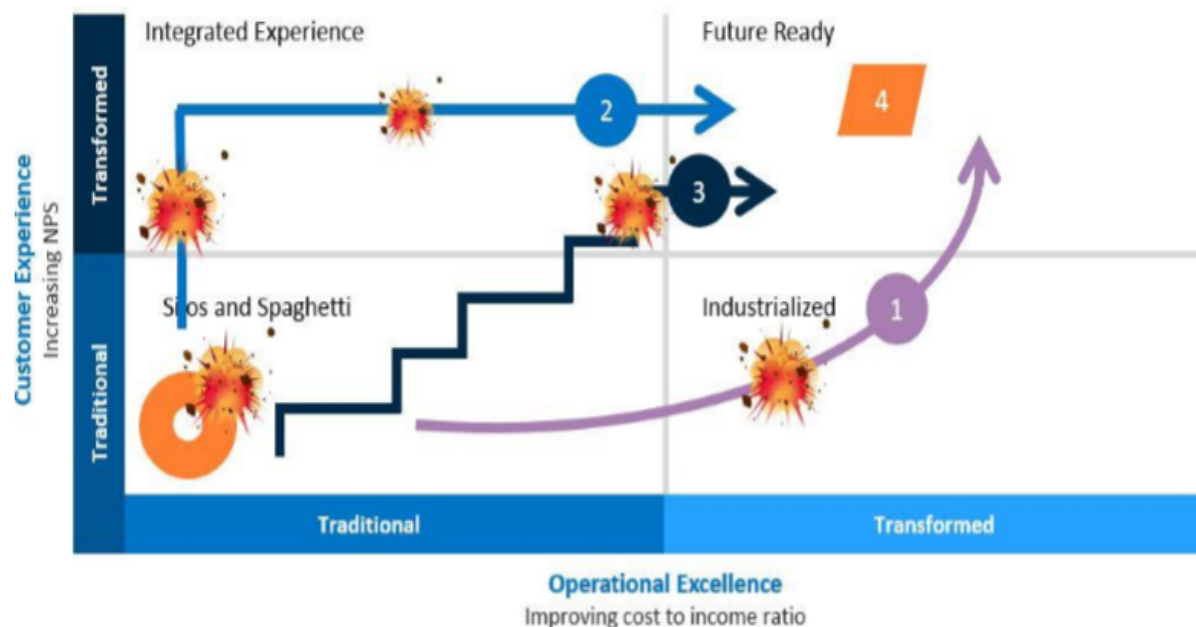


The lines are the transformation pathways.

Source: MIT CISR 2015 CIO Digital Disruption Survey (N=413) and 2016 company interviews. Customer Experience= effectiveness on customer knowledge+ omnichannel capability+customer experience projects+customer experience performance. Operational Excellence =effectiveness on automation and employee productivity projects+% of core capabilities with APIs+cost of operations performance. Quadrants are splits at splits at 2/3 along each axis.



## The four pathways to Future Ready



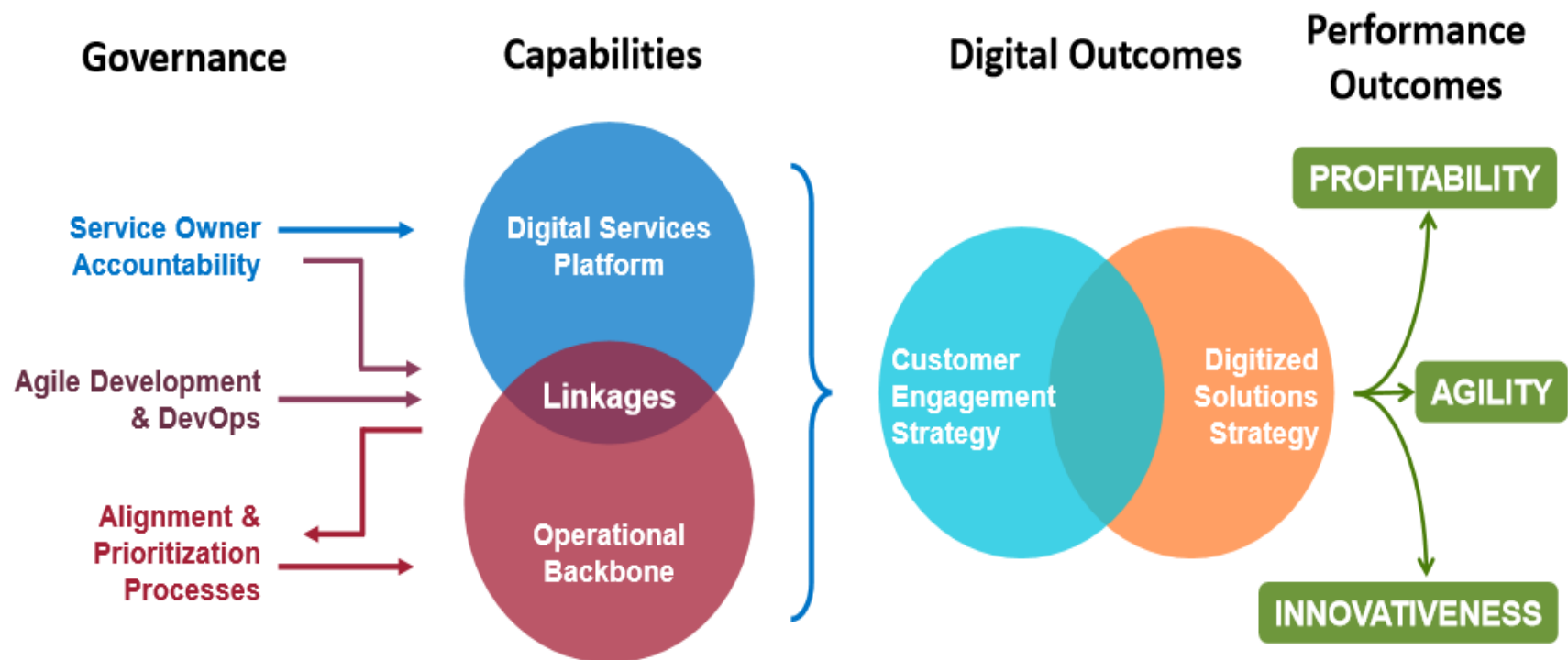
### Choose a Pathway

1. Where are you today on business digital transformation?
2. Move right on path 1 if your customer experience is ok (e.g., NPS around industry average).
3. If you can't wait to improve your customer experience (e.g., NPS is below industry average or new scary competitors), then move up on path 2.
4. If you can't wait to improve customer experience but can do a few initiatives that make a big difference (e.g., build a great app), start with those and then focus on operations—and repeat in small steps, say 120 days each—on path 3.
5. If you can't see a way to change the culture of your company and its customer experience and operations fast enough to survive—build a new company using path 4.





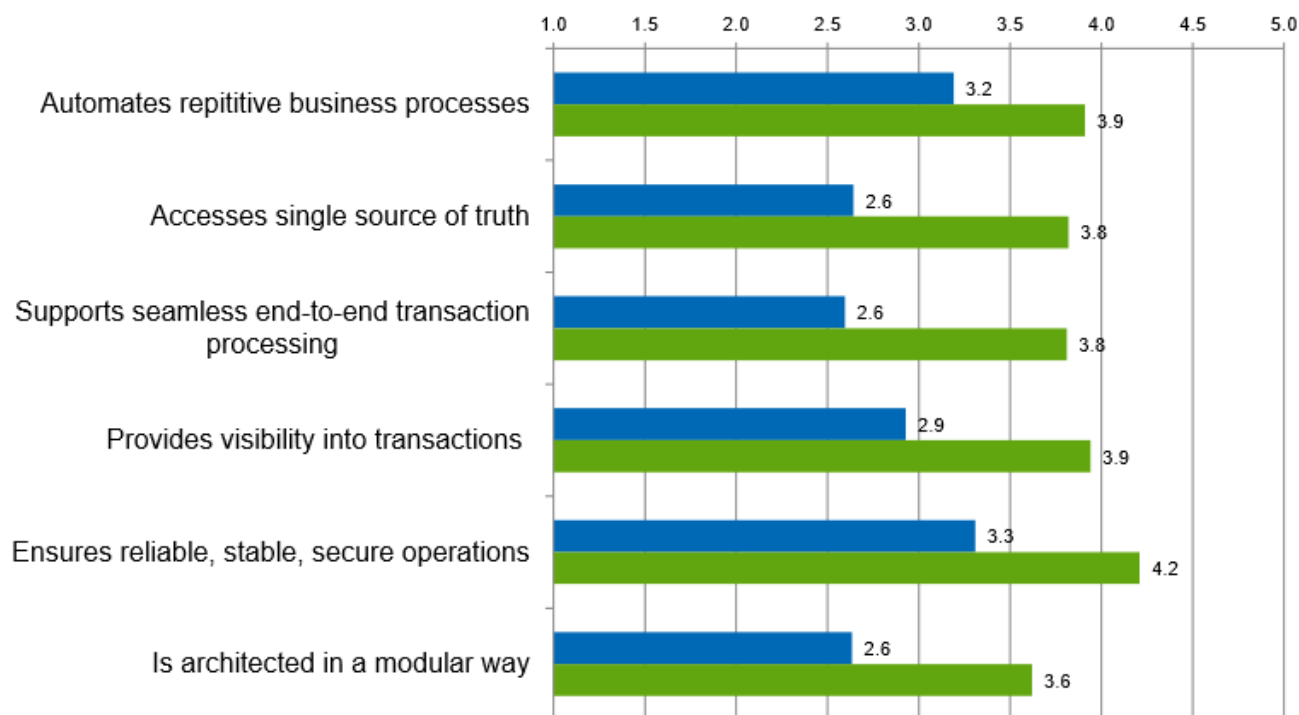
## How companies become agile and innovative







## Key characteristics of an operational backbone

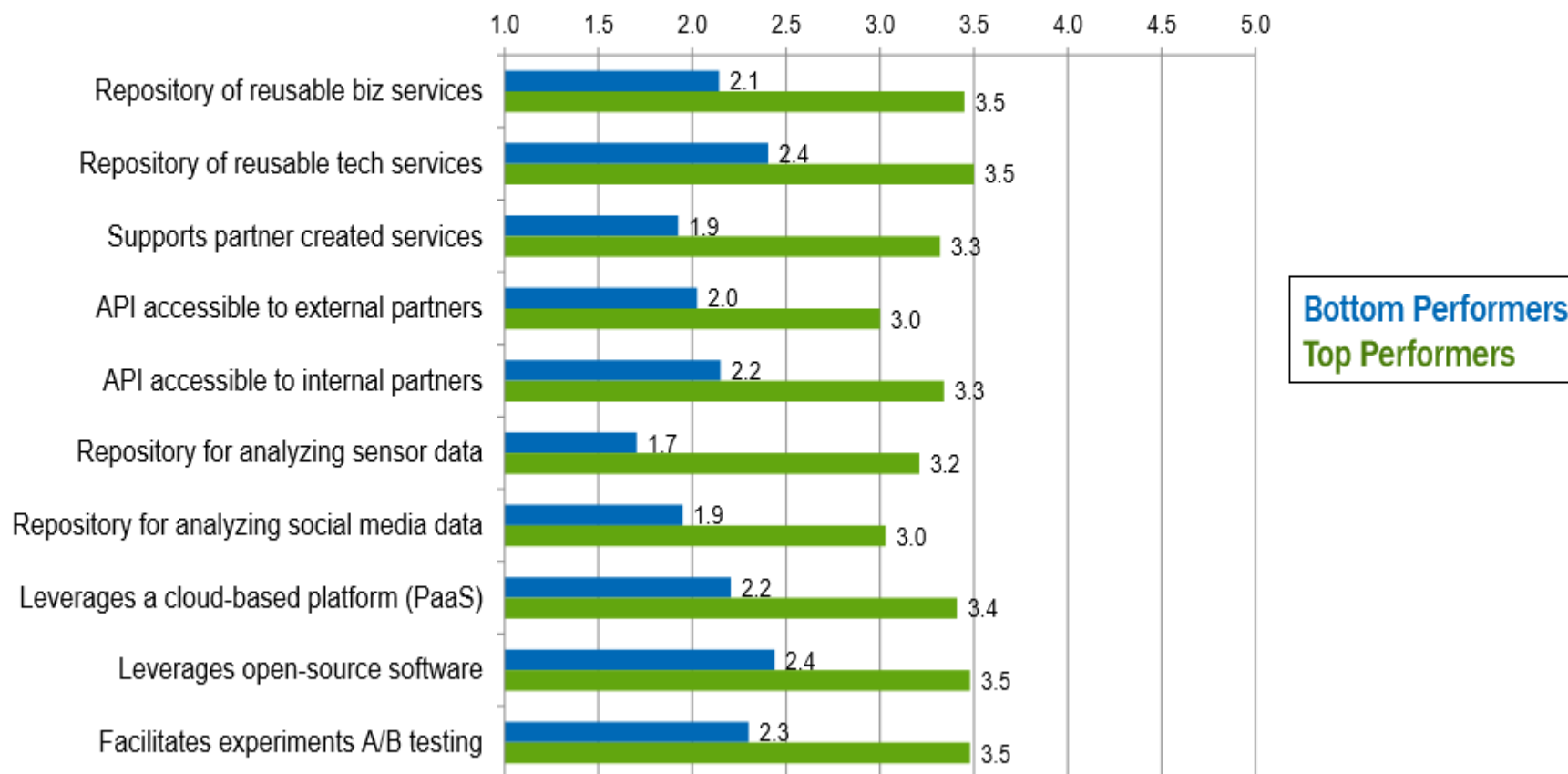


Bottom Performers  
Top Performers

Source: Survey of 171 senior executives, August 2016. Respondents were asked to describe these characteristics of their digital foundations on a scale of 1 (not at all) to 5 (best in class). High and low performers represent top and bottom quartile on 2 measures of agility and 2 measures of innovativeness.



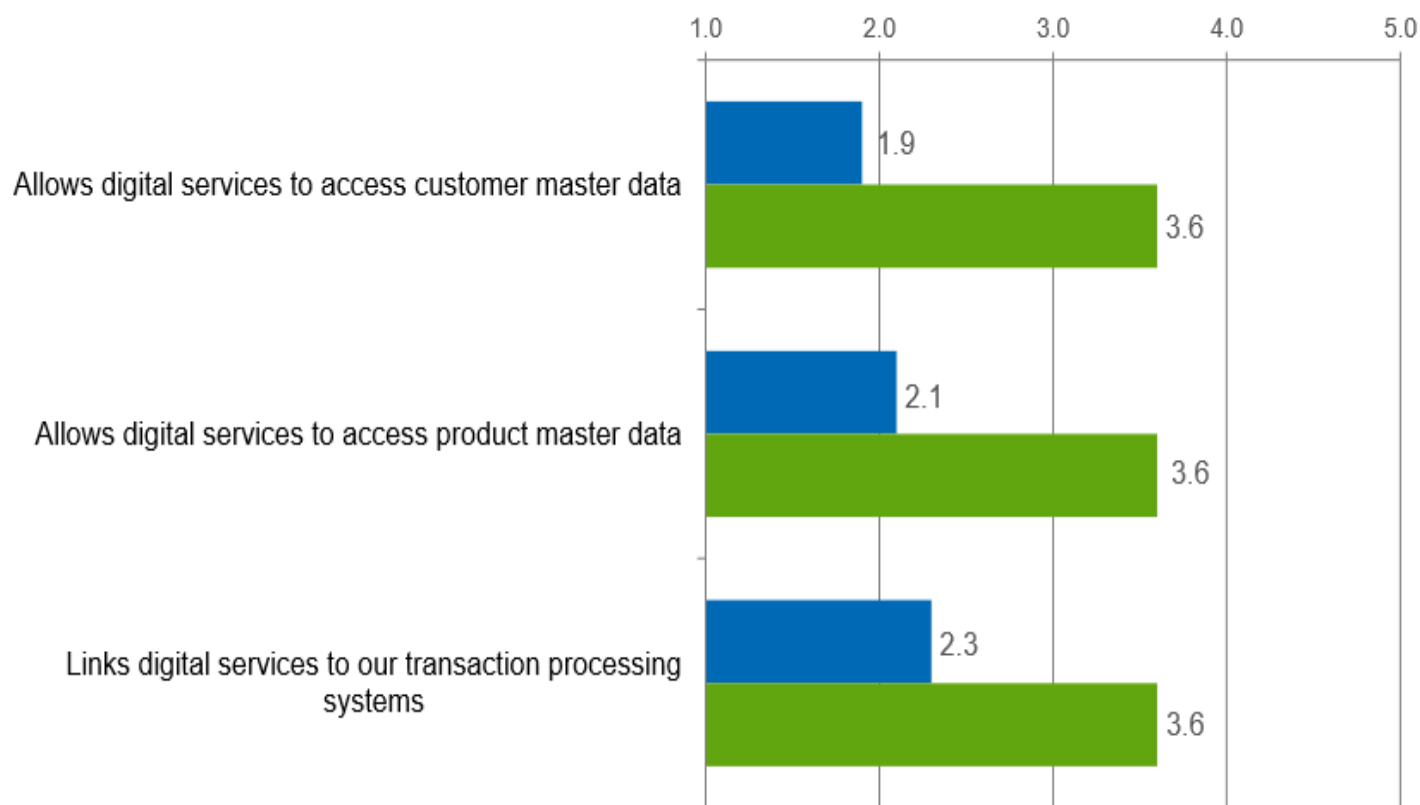
## Key characteristics of a digital services platform



Source: Survey of 171 senior executives, August 2016. Respondents were asked to describe these characteristics of their digital foundations on a scale of 1 (not at all) to 5 (best in class). High and low performers represent top and bottom quartile on 2 measures of agility and 2 measures of innovativeness.



## Key characteristics of digital linkages



Bottom Performers  
Top Performers



# To become digital, Lego's platforms expanded beyond operational excellence



## OPTIMIZATION (Operational Backbone)



## INNOVATION (Digital Services Backbone)

Supply Chain

HR

Manufacturing

PLM

Open IT (Cloud)

Ideas

Engagement

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

## Ping An Direct – Customer Centric Digital Transformation initiative

Ping An Direct is an initiative started by Ping An Group in 2014 to capitalise on the potential of digital. The Business Unit is a digital retail financial service business providing insurance (P&C and Life), personal financing and investment products through telemarketing, internet, mobile apps and social media. Ping An Direct is now the market leader with 14.7Mn customers and 50,000 employees.

Started as a channel development business unit in 2004, it has since evolved into the largest digital sales ecosystem in China for Ping An Group. Today, Ping An Direct provides Chinese consumers with an array of financial services products including motor insurance, non motor insurance, life insurance, personal loans, and investment products through a variety of online channels such as internet, mobile, social media, telemarketing and smart ATM's.

Ping An Direct has a mature marketing platform that includes tools for big data analytics, customer & behavior segmentation, dynamic pricing, scoring and propensity models. Customer Intelligence is at the core of Ping An Direct's profitable growth engine and they have built a best in class customer intelligence / data analytics capability in China.

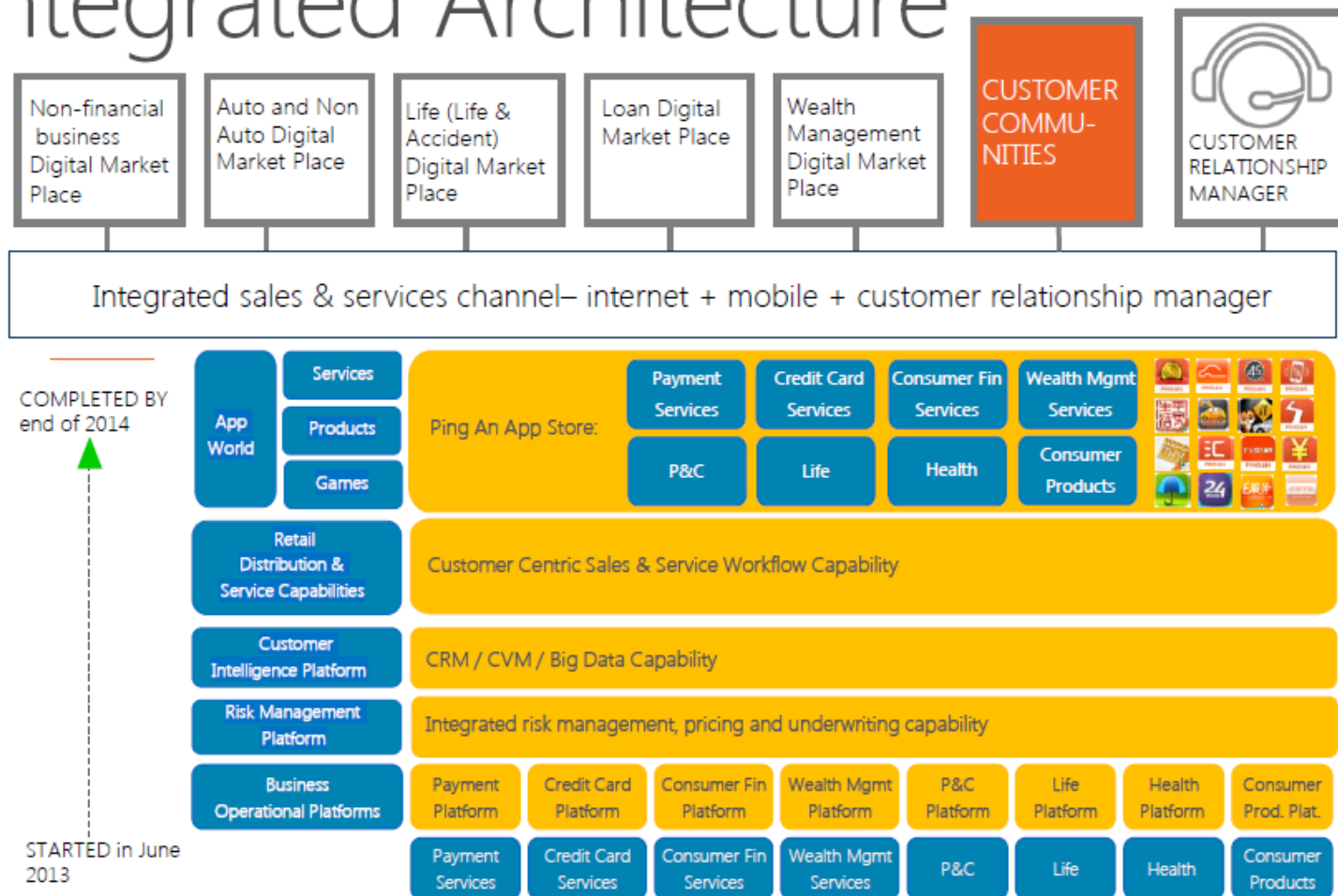


**Customer Intelligence is at the core of Ping An Direct's profitable growth engine and they have built a best in class customer intelligence and data analytics capability in China.**



## Ping An Direct: Our Journey to Customer Centric Digital Business Transformation

# PAD Integrated Architecture



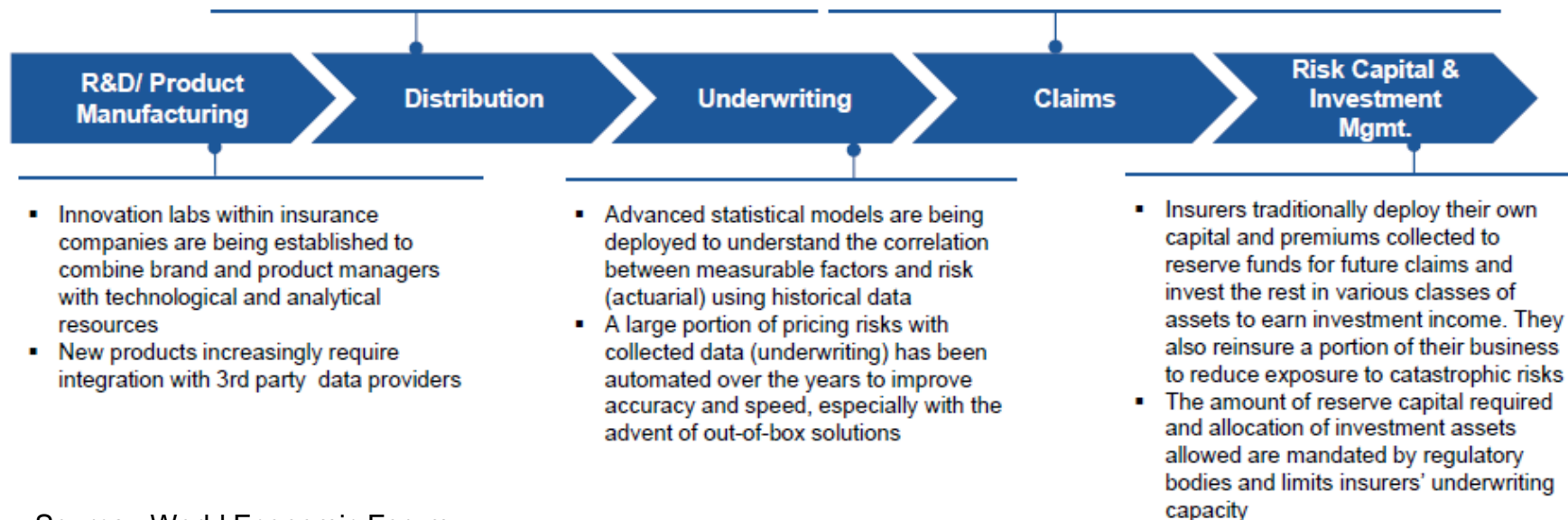


## The industry has been slowly evolving over the past couple decades, adopting customer centric innovations from other financial services functions

### What are the core capabilities of insurers today?

- Insurance is typically considered one of the functions within financial services where the adoption of innovation has been the slowest
- However, over the past decade many innovative practices such as digital channels and process automation have been gradually adopted by many insurers. This has been especially true in personal lines of business while large commercial lines have continued to focus on establishing a “personal touch” across the value chain

- Traditional broker / agent in-person distribution faces significant competitive pressures from digital channels in personal lines
- Distribution partnerships with banks and retailers through white-labelling and over-the-counter products have become increasingly popular
- In some geographies, customer-centric high-touch services have emerged to provide differentiated claims experience (e.g., rapid response teams)
- The adoption of digital channels has begun to replace manual time-consuming processes to empower customers and / or workforce





## A number of emerging forces will lead to pressure on the insurance industry across the value chain (1 / 2)

### Key pressures across the insurance value chain

Advancing technologies, changing customer preferences and the market landscape are enabling a number of innovations and trends, which create pressure across the insurance value chain

#### e-Aggregators

Online aggregators that allow customers to compare prices and purchase insurance products online may displace traditional distribution channels as customer preferences change and more insurance products are commoditised (e.g., UK P&C market)

#### Entry of tech players

Technology providers with brand recognition and trust surpassing financial institutions may enter the insurance distribution market, leveraging their extensive data and distribution capability. Google acquired a UK e-aggregator BeatThatQuote charging insurers up to \$54 per click

#### Securitization

Insurance linked securities such as catastrophe bonds are introducing new pools of capital providing fully collateralised coverage to insurers, outside of traditional re-insurance and insurance pools



R&D/  
Product  
Manufacturing

Distribution

Underwriting

Claims

Risk Capital &  
Investment  
Mgmt.



#### Self-driving cars

Fully or partially self-driving cars are emerging leveraging smart sensors, connectivity and machine-to-machine communications. This will considerably reduce the risks associated with driving and may shift the principal of insurance from drivers to manufacturers

#### Sharing economy

As sharing economies emerge from pay-as-you-go rentals to shared vehicles and houses, the concept of ownership may radically change, challenging traditional insurance models developed based on one-to-one ownership structure

#### Entry of hedge funds

Driven by a low interest rate environment and access to premiums, hedge funds and alternative sources of capital are moving closer to the insurance value chain by setting up reinsurers, providing additional funding options for insurers

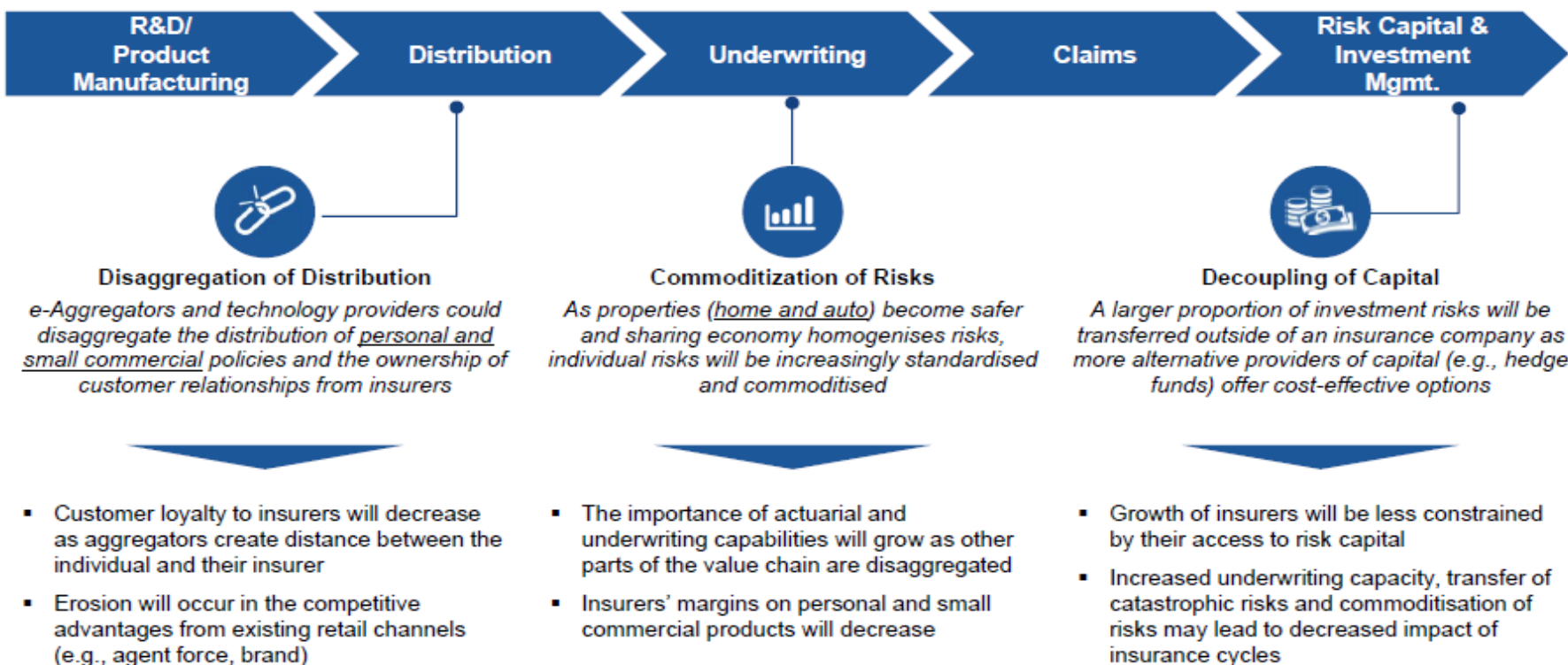
Impact on all Insurers

Impact on P&C insurers



As the result, the insurance value chain will be increasingly disaggregated in the future, changing the nature of the insurance business

Key characteristics of the future state insurance value chain



How will disaggregation across the value chain change the insurance landscape in the future?



## Connected devices and platforms emerging across cars, homes and lifestyles present an opportunity to improve and expand the telematics insurance models

### Drivers behind the emergence of connected devices



Smarter, cheaper sensors



Internet-of-things



Communication protocols



Advanced analytics

### Innovations creating potential opportunities for the connected insurance model

#### 1. Connected Cars

- Run on operating systems (apps can be installed) and are connected to the internet
- Gather and transmit information on every part of the vehicle
- Communicate with other cars to prevent accidents



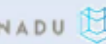
#### 2. Connected Homes

- Monitor key metrics (e.g., temperature) and automatically modify the environment accordingly based on learning
- Identify risk factors (e.g., smoke) and take adequate actions for prevention / triaging
- Communicate with the environment to adapt to surrounding environments



#### 3. Connected Lifestyles

- Quantify, track, monitor and manage daily activities through wearable devices
- Identify trends, patterns and recommendations based on quantified data
- Measure, track and analyse vitals relevant for specific conditions and illness



#### 4. Standardised Platforms

- Increase interoperability; facilitate data gathering, management and utilisation; and improve coordination among connected devices



Apple CarPlay



Open Automotive Alliance



SmartThings



### Key advantages

#### Easier utilization of data

Gathered data can be shared easily via connectivity and data-based services can be easily provided as apps through platforms (i.e., a tap to install and opt in)

#### Real-time communication

Data from vehicles, properties and individuals are gathered and analysed in real-time to provide timely, relevant insights and information to users

#### Mix-and-match of data

Data from multiple sources can be combined and analysed to create more comprehensive and accurate understanding of users





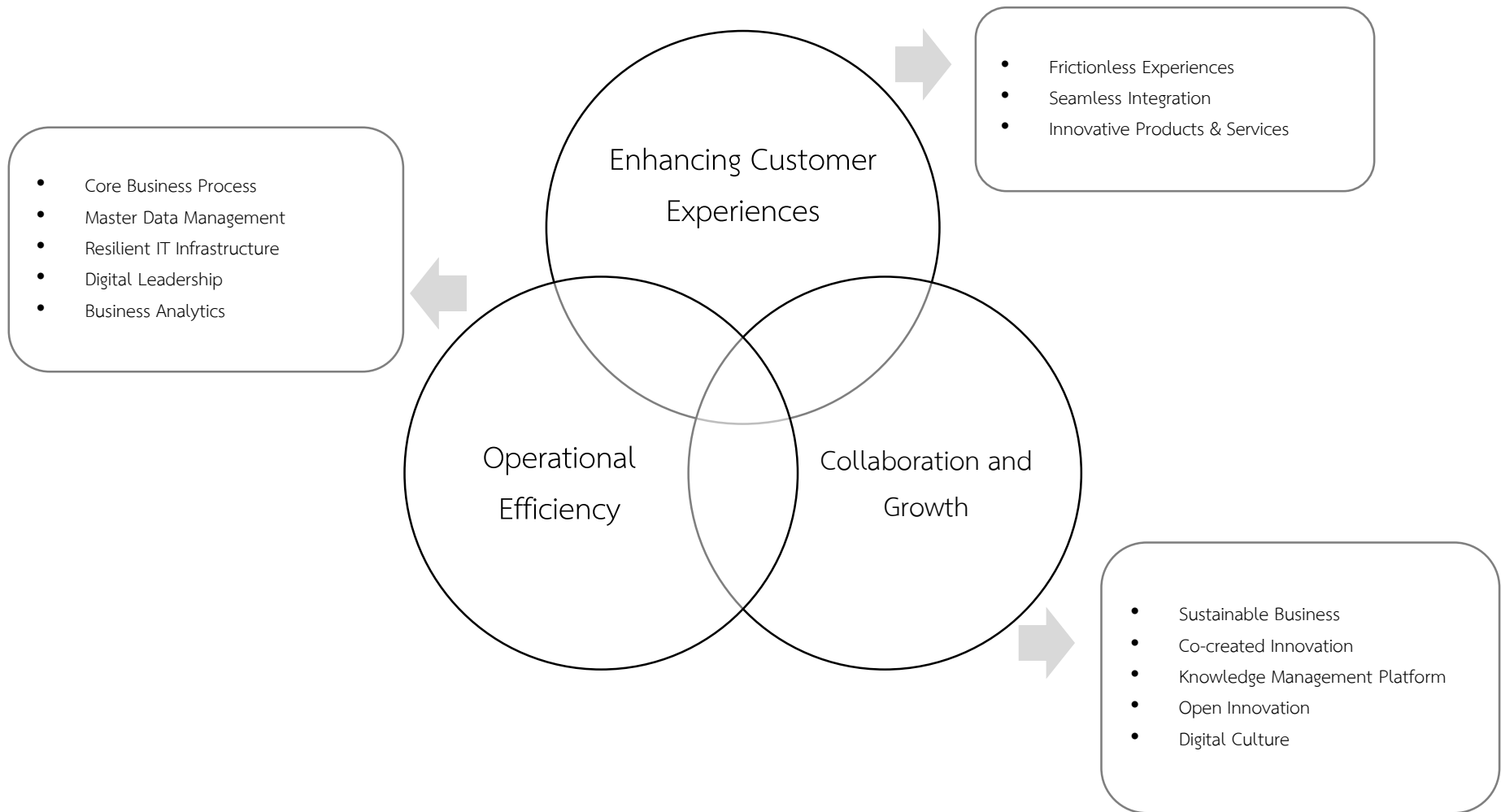
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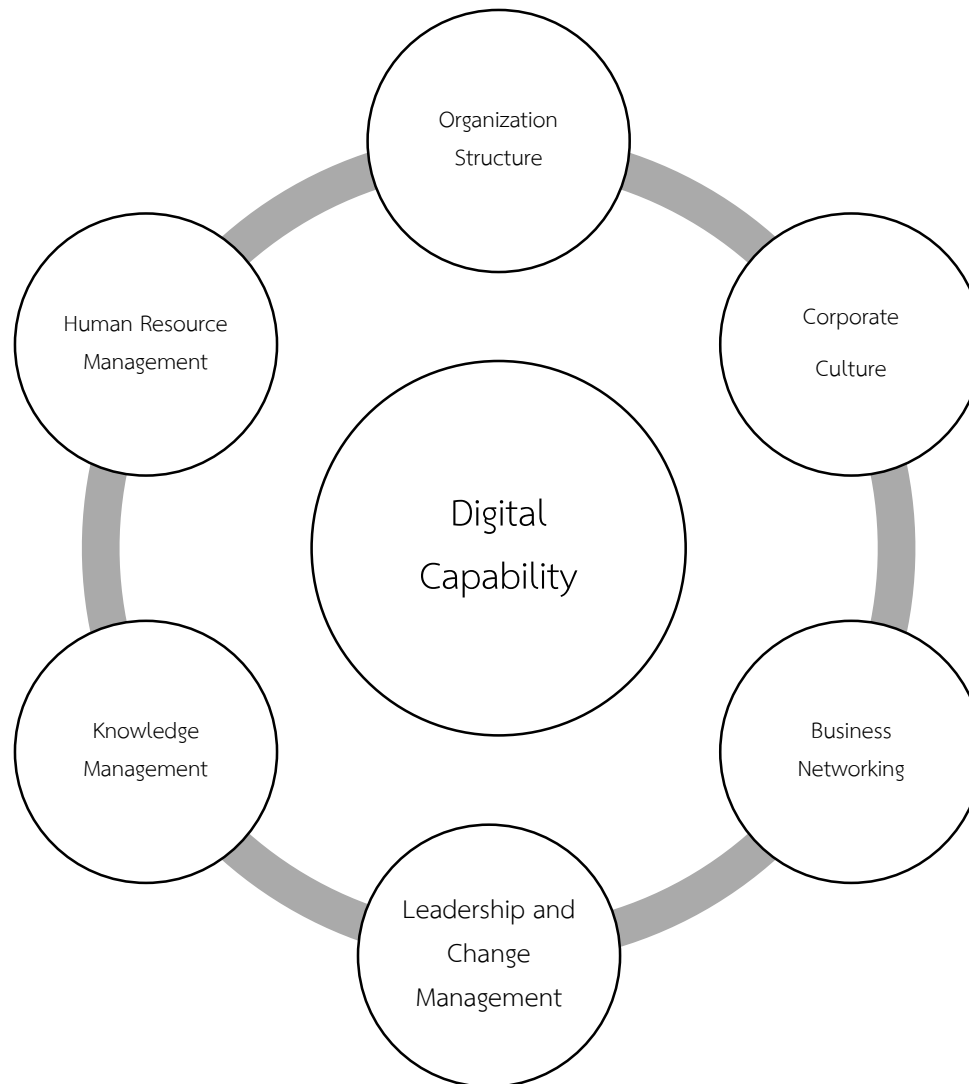
## Digital Insurance Roadmap



## Digital Insurance Strategic Plan



## Digital Capability Maturity Elements





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ปัจจัยการประเมินศักยภาพองค์กรนวัตกรรม

1

2

3

4

5

1. โครงสร้างองค์กร

ความเหมาะสมของโครงสร้างองค์กรที่มีผลต่อประสิทธิภาพต่อการจัดการนวัตกรรมองค์กร

2. ภาวะผู้นำ

ลักษณะของภาวะผู้นำที่ส่งผลต่อกระบวนการจัดการนวัตกรรมองค์กรในแต่ละขั้นตอน

3. การจัดการทรัพยากรมนุษย์

แผนงานและการจัดการทรัพยากรมนุษย์ที่มีผลต่อการประสิทธิภาพการจัดการนวัตกรรมองค์กร

4. วัฒนธรรมองค์กร

วัฒนธรรม พฤติกรรมและบรรยากาศในการดำเนินงานขององค์กรที่มีผลต่อการจัดการนวัตกรรมองค์กร

5. การจัดการความรู้

รูปแบบและลักษณะการจัดการความรู้กับการสนับสนุนกระบวนการจัดการนวัตกรรม

6. ยุทธศาสตร์

การกำหนดยุทธศาสตร์และกลยุทธ์ที่ส่งผลต่อกระบวนการจัดการนวัตกรรม



สมาคมประกันวินาศภัยไทย  
Thai General Insurance Association

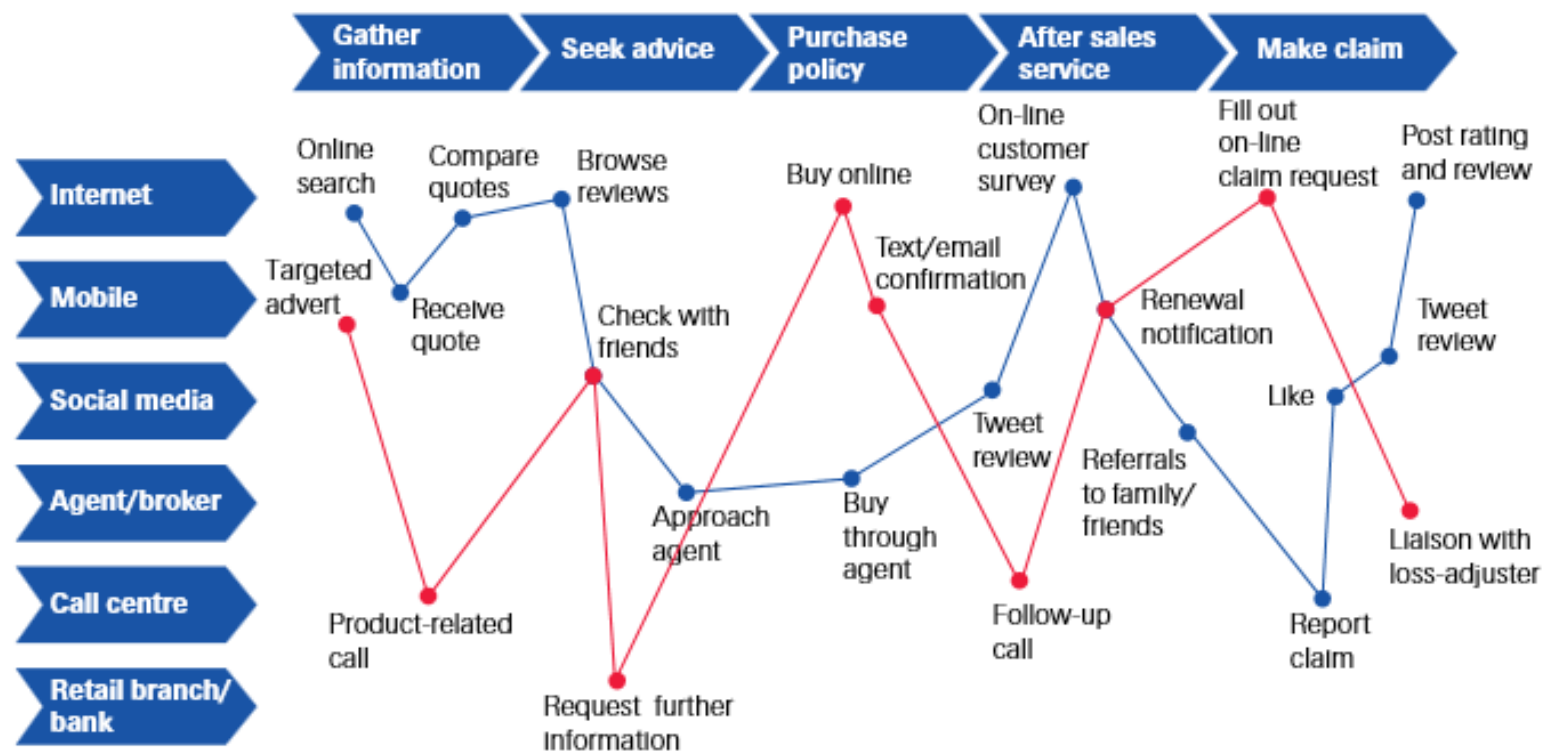
ขอบคุณครับ





สมาคมประกันวินาศภัยไทย

Thai General Insurance Association



Note: The red line shows an example buying journey initiated by a mobile advert, and the blue line a purchase experience via online search.

Source: Swiss Re Economic Research & Consulting based on insights from "Powering the Cross-Channel Customer Experience with Oracle's Complete Commerce", Oracle (2012)

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## FACEBOOK'S TOP COUNTRIES AND CITIES

COUNTRIES AND CITIES WITH THE LARGEST ACTIVE FACEBOOK USER BASES

## COUNTRIES WITH THE LARGEST NUMBER OF ACTIVE FACEBOOK USERS

#	TOP COUNTRIES	USERS	% TOTAL*
01	UNITED STATES	214,000,000	11%
02	INDIA	191,000,000	10%
03	BRAZIL	122,000,000	7%
04	INDONESIA	106,000,000	6%
05	MEXICO	76,000,000	4%
06	PHILIPPINES	60,000,000	3%
07	TURKEY	48,000,000	3%
08	THAILAND	46,000,000	2%
09	VIETNAM	46,000,000	2%
10	UNITED KINGDOM	42,000,000	2%

## CITIES WITH THE LARGEST NUMBER OF ACTIVE FACEBOOK USERS

#	TOP CITIES	USERS	% TOTAL*
01	BANGKOK	24,000,000	1.3%
02	MEXICO CITY	19,000,000	1.0%
03	DHAKA	16,000,000	0.9%
04	JAKARTA	16,000,000	0.9%
05	ISTANBUL	14,000,000	0.7%
06	CAIRO	13,000,000	0.7%
07	SÃO PAULO	12,000,000	0.6%
08	NEW DELHI	12,000,000	0.6%
09	LIMA	11,000,000	0.6%
10	HO CHI MINH	9,700,000	0.5%



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## AVERAGE E-COMMERCE REVENUE PER USER

AVERAGE TOTAL AMOUNT SPENT ON E-COMMERCE PURCHASES BY EACH E-COMMERCE USER IN 2016, IN UNITED STATES DOLLARS

