



Institute and Faculty of Actuaries

## Improving the success of InsurTech opportunities

Risk Management in a Digital World Working Party

Darko Popovic  
Richard Purcell



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## Introduction to our working party



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### Introduction to our Working Party

**Background**

- There has been significant development and enhancement of ERM Frameworks
- Increased focus and investment into innovative InsurTech opportunities
- Not clear whether risk management capabilities are being fully utilised to assess InsurTech opportunities

**Working Party members**

- |  |  |
|--|--|
| - Daniel Bruce (Chair): Partner, Crowe Horwath         | - Jools Manning: Head of Strategic Risk, Just                    |
| - Carole Avis: CRO L&G Insurance & General Insurance   | - Darko Popovic: Senior Manager, Crowe Horwath                   |
| - Matthew Byrne: Chief Actuary, NFU Mutual             | - Richard Purcell: Technical & Innovation Lead, Hymans Robertson |
| - Vitesh Gotrani: Director of Risk & Actuarial, Cyence | - Weihe Qin: Financial Risk Manager, Lloyds Banking Group        |
| - ZhiLin Lim: Senior Manager, HSBC                     |  |

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### InsurTech: An opportunity to grow the insurance market?



22 October 2018 Source: Swiss Re, Protection Review 4

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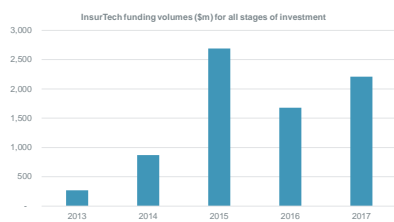
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### The growth in InsurTech funding



22 October 2018 Source: The Data Center 5

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### What we set out to do

- **Understand the current approach and views in this space:**
  - Carry out an industry survey
  - Conduct interviews with industry participants
- **Develop practical tools for insurers:**
  - Develop an overview of a typical lifecycle of an InsurTech project
  - Create a checklist for risk management considerations in the context of InsurTech solutions
  - Produce a final report

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### Results of our survey

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### Overview of the survey

- We carried out the online survey from October to December 2017, to help assess:
  - The views and general understanding of InsurTech
  - The current activity of insurers in relation to InsurTech, including their capability in assessing emerging risks from new technologies
- The survey was open to all interested parties and advertised:
  - Through IFOA member emails
  - At the IFOA's GIRO and Life Conferences
  - At the ABI's "Data, Tech and Cyber" conference
  - Through ORIC International
- Overall we received 124 responses, with 90% being IFOA members

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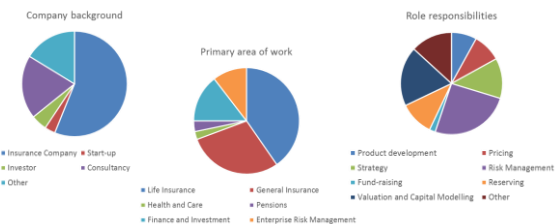
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### Profile of survey respondents



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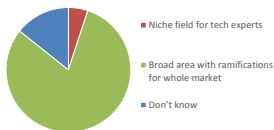
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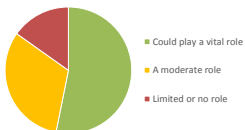
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### InsurTech can add significant value

InsurTech has ramifications for whole industry....



...and can add significant value to insurers in helping deliver the business strategy



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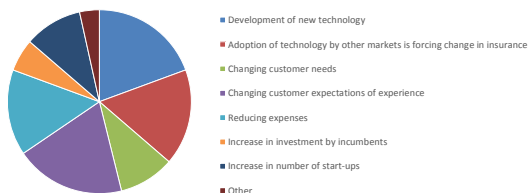
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### Drivers of development and adoption

New technology, and changing consumer needs and expectations are the key drivers of InsurTech:



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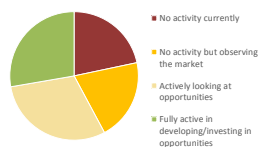
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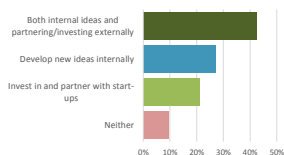
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### What are insurers doing?

Most are engaging in InsurTech in some way...



...through a variety of strategies:



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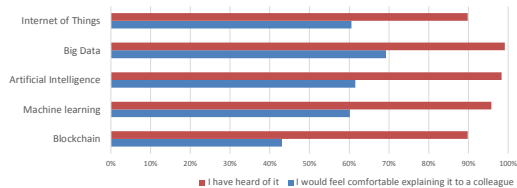
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### Low understanding of new technologies

Respondents indicated a high level of awareness of new technologies and innovations, but showed a lack of confidence and understanding of these items:



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### What are the key risks?

Respondents believe insurers recognise the key risks.....



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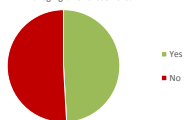
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### Are existing ERM frameworks suitable?

...but say insurers have gaps in their existing risk frameworks and risk management skills:

Do you believe your company's existing risk management framework is suitable for assessing and managing all of these risks?



Do you have the right skills to assess risks emerging from InsurTech?



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### Survey conclusions

- **High value:** Embracing InsurTech opportunities can add significant value to insurers
- **Mixed approach:** Insurers are at various stages of development and are adopting different strategies
- **Skills gap:** There is good awareness, but low understanding of new technologies
- **Evolve risk frameworks:** Risk management frameworks are not suitable and need to evolve

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### Interviews




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### Overview

- **We interviewed senior stakeholders within in the insurance industry:**
  - Helping us to understand the industry sentiment and approach to risk management in practice when considering InsurTech opportunities
- **Focus of questions:**
  - Trends and opportunities
  - Key risks and how to manage them
  - Key drivers
  - Lessons learnt and any concerns
- **Key points arising:**
  - Drivers of the growth of InsurTech
  - Key emerging risks
  - Relevance of existing ERM Frameworks
  - Management of broader threats to business models and strategy

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### Mini case studies

<b>Trend areas:</b> Customer facing vs. back office	<b>Insurers vs. Start-ups</b> <small>Capital, customers, infrastructure and ideas</small>	<b>FS Sector:</b> Banking vs. Insurance	<b>Upside vs. Downside</b> <small>Risks of success as well as failure</small>
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### Some interesting quotes...

- "Industry is mainly focused on the financial risks, much less so on conduct risks. When does a price comparison site become an "advisor", for example, in the regulator's eyes?"
- "If customers are unhappy with the current product / service then the market is ripe for disruption"
- "Trend seems to be that people are asking money for undeveloped ideas, which seems to suggest a bubble forming. However, some of the underlying technologies, e.g. Blockchain, tracking device as few examples, have great potential"
- "The current framework is not unsuitable, but is certainly not optimised, if that were ever possible. I would argue the framework is not optimised for digital world because we are not in it, yet."

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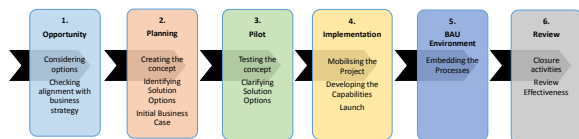
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## Overview

- A set of standard InsurTech implementation stages used during the full lifecycle of investing in an InsurTech Solution is set out below:



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## Checklist for digital solutions

ERM Framework Component	InsurTech Stages					
	1. Opportunity	2. Planning	3. Pilot	4. Implementation	5. BAU Environment	6. Review
Strategy & Business Planning	Business Strategy & Business Plan					
Risk Governance & Standards	Risk Strategy & Objectives					
	Board/ Board Risk Committee					
	Senior Management					
Risk Management Processes	Policy					
	Strategic Risk Management					
	Financial Risk Management					
	Operational Risk Management					
Risk Reporting & Communications	Stress Testing & Scenario Analysis					
	Change Processes					
	Training & Communication					
	Risk Management Effectiveness					
Risk Reporting & Communications	Risk Reporting & Data					
	Management Information					
External Communications						

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## Example 1: Details

### Considerations: Strategy & Business Planning

#### Business Strategy & Business Plan

- Do you have previous experience of delivering digital solutions? What lessons have been learned?
- What capability do you have to develop IP in house vs partner with external firms (partners can help to reduce timescales and risk)? Which approach is more aligned with strategic objectives? I.e. is owning the IP key to business?
- Does your firm work with any accelerators or wish to start its own? An internal accelerator can help to stretch your own staff and provide them with opportunities which equally benefit the organisation.

#### Risk Strategy & Objectives

- Is the digital opportunity in line with the firm's risk strategy & objectives?
- Has a high level assessment been undertaken to identify the key risks arising from the digital opportunity, including new risks introduced and/or changes to existing risks?
- Does your firm have clear and rigorous decision-making processes to follow when choosing a digital opportunity?

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### Checklist for digital solutions

ERM Framework Component	InsurTech Stages					
	1. Opportunity	2. Planning	3. Pilot	4. Implementation	5. S.M.U. Embedment	6. Review
<b>Strategy &amp; Business Planning</b>	Business Strategy & Business Plan Risk Strategy & Objectives					
<b>Risk Governance &amp; Standards</b>	Board / Board Risk Committee Senior Management Roles and Responsibilities Risk Appetite Policies					
<b>Risk Management Processes</b>	Strategic Risk Management Financial Risk Management Operational Risk Management Stress Testing & Scenario Analysis Change Processes					
<b>Risk Reporting &amp; Communications</b>	Training & Communication Risk Management Effectiveness Risk Reporting & CRISA Management Information External Communications					

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### Example 2: Details

#### Considerations: Risk Management Processes

##### Change Processes

1. Are leaders prepared to manage their functions' transitions to greater digitisation?
2. How can your firm empower leaders to adjust processes and technology investments to respond quickly to new developments?
3. What challenges are there to processing new information and making decisions?
4. What criteria are required to consider whether to change course if necessary?

##### Training & Communication

1. What gaps, if any, exist in staff competencies and skills required to drive a digital strategy?
2. What training needs to be developed and delivered?
3. Is there the necessary skills and expertise in-house or is external expertise required?

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### Checklist for digital solutions

ERM Framework Component	InsurTech Stages					
	1. Opportunity	2. Planning	3. Pilot	4. Implementation	5. S.M.U. Embedment	6. Review
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<b>Risk Management Processes</b>	Strategic Risk Management Financial Risk Management Operational Risk Management Stress Testing & Scenario Analysis Change Processes Training & Communication					
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### Next Steps



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### What next for the Working Party?

#### Digital Risk Appetite

- Form views and recommendations to assist actuarial practitioners, and other interested parties, in *defining and developing the digital risk appetite of an organisation.*

#### Blockchain

- Assist actuarial practitioners, and other interested parties, in the *developing emerging uses for blockchain to manage data*, for the purposes of insurance related activities

#### Education and Training

- Identify *current CPD and training opportunities*, and identify where the *knowledge of relevant concepts amongst actuaries* falls short of the widespread awareness of the concepts
- Develop recommendations for addressing these gaps

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### Thank you

- Report and Guideline published online – please take a look
- Working Party commencing Phase II – call for members



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Questions

Comments

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