



Institute  
and Faculty  
of Actuaries

# Risk Management in a Digital World WP

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## 1. Introduction to the Working Party

- Background
  - Significant development and enhancement of ERM Frameworks
  - Increased focus and investment on digital opportunities
  - Not clear whether risk management capabilities are being fully deployed to facilitate digital decision making
- Working Party members
 

<ul style="list-style-type: none"> <li>– Daniel Bruce (Chair): Partner, Crowe Horwath</li> <li>– Carole Avis: CRO L&amp;G Insurance &amp; General Insurance</li> <li>– Matthew Byrne: Chief Actuary, NFU Mutual</li> <li>– Vivesh Gosrani: Director of Risk &amp; Actuarial, Cyence</li> <li>– Zhixin Lim: Senior Manager, HSBC</li> </ul>	<ul style="list-style-type: none"> <li>– Jools Manning: Head of Strategic Risk, Just</li> <li>– Darko Popovic: Senior Manager, Crowe Horwath</li> <li>– Richard Purcell: Technical &amp; Innovation Lead, Hymans Robertson</li> <li>– Weihe Qin: Financial Risk Manager, Lloyds Banking Group</li> </ul>
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## 2. Risk Management in a Digital World

- Early decision taken to initially focus on InsurTech
- Hypothesis:
  - Insurance companies are not fully utilising risk management capabilities to facilitate InsurTech decision making
  - There are additional benefits to be gained from doing so, at appropriate times in the investment lifecycle
  - It would be helpful for the IFoA to provide guidance



We recognise the importance of not stifling innovation

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## 2. Risk Management in a Digital World

- Phase 1:
  - Carry out an industry survey
  - Develop an overview of a typical lifecycle of an InsurTech project
  - Create a checklist for risk management considerations in the context of InsurTech solutions
  - Conduct interviews with industry participants
  - Produce a final report
- Subsequent phases
  - Currently under discussion
  - May broaden scope to other sectors or specific types of digital investment
  - May dive deeper into some of the areas that we touch upon in Phase 1

## 3. Purpose of This Session

- Share some initial phase 1 outputs
  - Survey
  - Timeline
  - Checklist
- Obtain feedback and thoughts
  - Time for Q&A at the end
  - Happy to discuss / receive comments afterwards

## 4. Overview of Working Party Outputs

### Survey Overview

- The Working Party carried out a 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:
  - 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

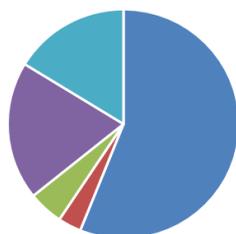
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## 4. Overview of Working Party Outputs

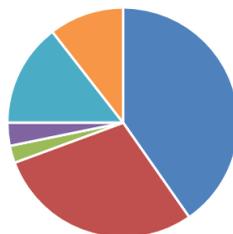
### Survey Overview

Company background



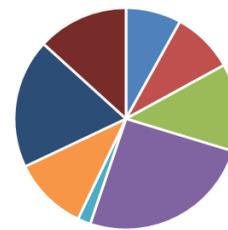
■ Insurance Company ■ Start-up  
 ■ Investor ■ Consultancy  
 ■ Other

Primary area of work



■ Life Insurance ■ General Insurance  
 ■ Health and Care ■ Pensions  
 ■ Finance and Investment ■ Enterprise Risk Management

Role responsibilities



■ Product development ■ Pricing  
 ■ Strategy ■ Risk Management  
 ■ Fund-raising ■ Reserving  
 ■ Valuation and Capital Modelling ■ Other

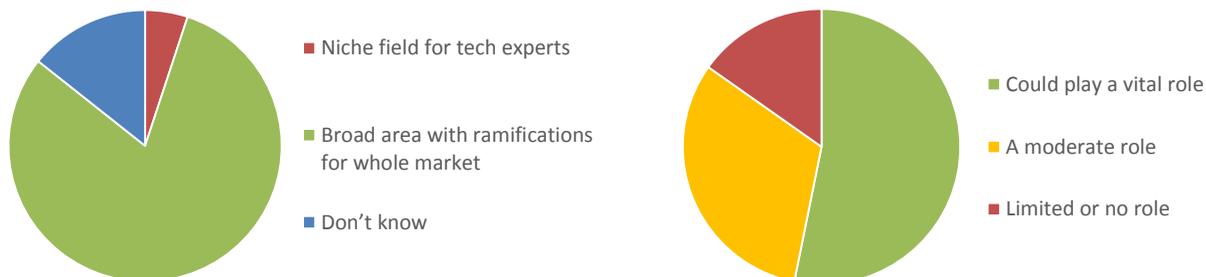
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## 4. Overview of Working Party Outputs

### Survey Outputs: Views on trends and opportunity

- InsurTech has ramifications for whole industry....
- ...and can add significant value to insurers in helping deliver the business strategy



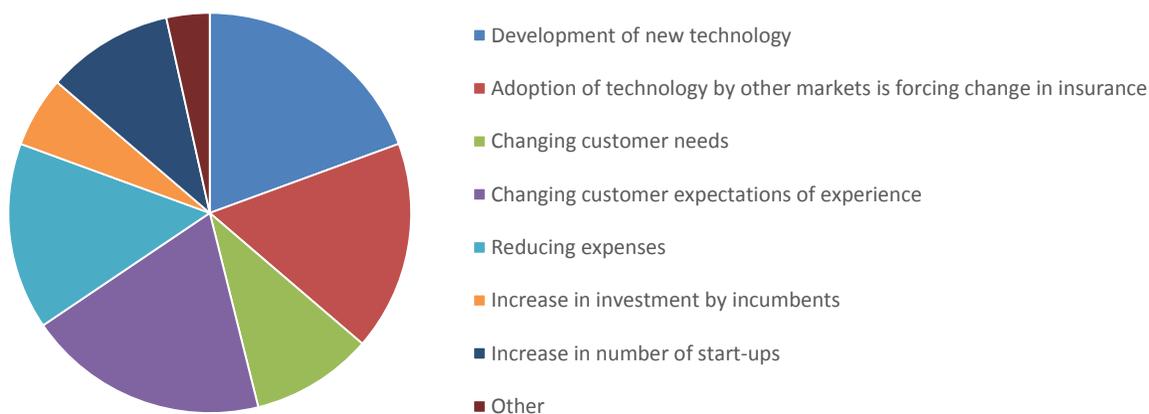
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## 4. Overview of Working Party Outputs

### Survey Outputs: Views on trends and opportunity

- New technology and consumer expectations are the key drivers of InsurTech:



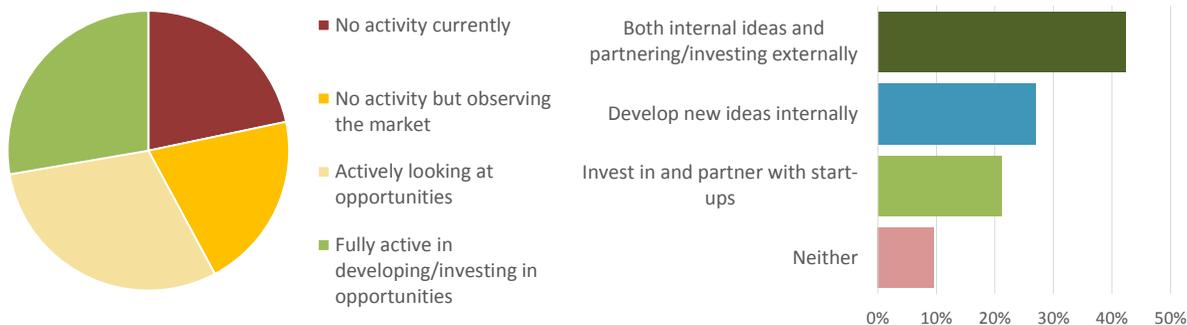
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## 4. Overview of Working Party Outputs

### Survey Outputs: What are insurers doing?

- Most are engaging in InsurTech in some way...
- ...through a variety of strategies:



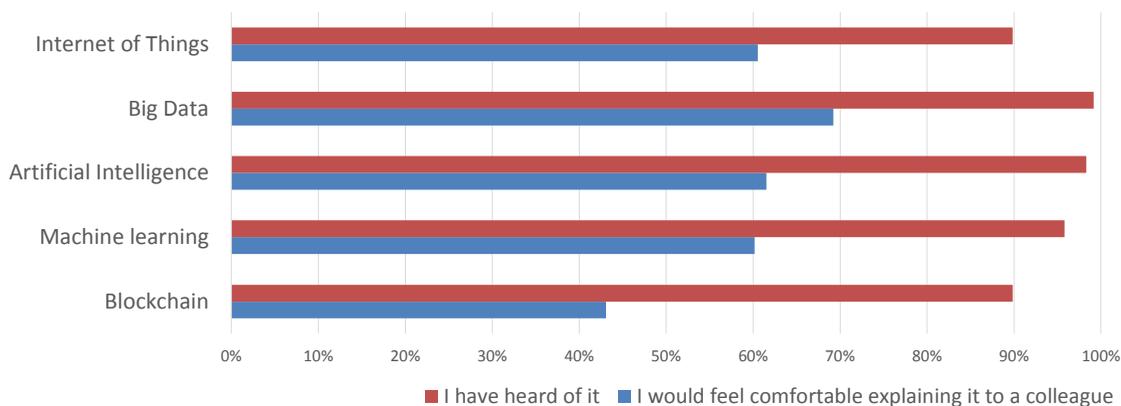
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## 4. Overview of Working Party Outputs

### Survey Outputs: Awareness and skills

- 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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## 4. Overview of Working Party Outputs

### Survey Outputs: Suitability of ERM Frameworks

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



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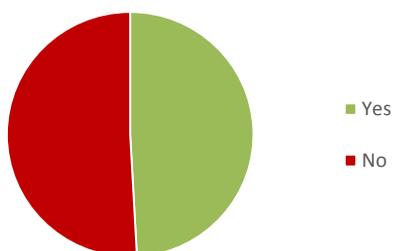
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## 4. Overview of Working Party Outputs

### Survey Outputs: Suitability of ERM Frameworks

- ...but say they 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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## 4. Overview of Working Party Outputs

### Working Party view on survey outcomes

- 1) Varied approaches across the sector in the context of exploring InsurTech opportunities and digital transformation projects
- 2) Existing ERM Frameworks may need some further development:
  - Created before the widespread emergence of InsurTech
  - Perceived gaps in the understanding and processes in relation to managing the risks of InsurTech
  - Closing this gap becoming increasingly important as InsurTech becomes even more prevalent
- 3) Identification of a skills gap, where the relative knowledge of concepts falls short of the widespread awareness of them

Looking forward, this suggests:

- Organisations will need to consider further developing their existing risk frameworks to more effectively cater for developments in InsurTech
- Individuals will need to improve their understanding of and expertise in InsurTech, in order to fully articulate and effectively manage the risks associated with InsurTech opportunities and propositions

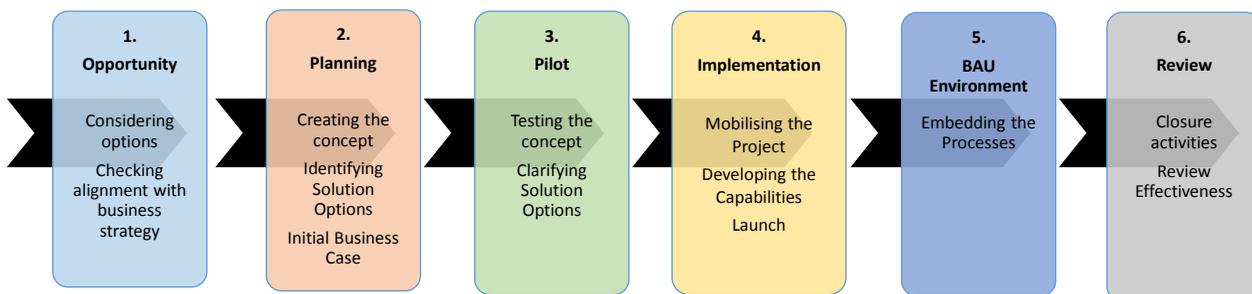
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## 4. Overview of Working Party Outputs

### A Timeline for InsurTech Solutions

- A set of standard InsurTech implementation stages used during the lifecycle of planning, implementing, embedding and reviewing delivery of an InsurTech Solution is set out below:



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## 4. Overview of Working Party Outputs

### A Checklist for InsurTech Solutions

- The Checklist for Digital Solutions is set out below – this links an example Enterprise Risk Management Framework to the InsurTech implementation stages on the previous slide.

ERM Framework Component		InsurTech Stages					
		1. Opportunity	2. Planning	3. Pilot	4. Implementation	5. BAU Environment	6. Review
<b>Strategy &amp; Business Planning</b>	Business Strategy & Business Plan						
	Risk Strategy & Objectives						
	Board / Board Risk Committee						
<b>Risk Governance &amp; Standards</b>	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						
	Training & Communication						
<b>Risk Reporting &amp; Communications</b>	Risk Management Effectiveness						
	Risk Reporting & ORSA						
	Management Information						
	External Communications						

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## 4. Overview of Working Party Outputs

### A Checklist for InsurTech Solutions (continued)

#### 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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## 4. Overview of Working Party Outputs

### A Checklist for InsurTech Solutions (continued)

#### Considerations: Risk Management Processes

##### Risk Management Effectiveness

1. To what extent is the firm able to evidence that risk management has been taken into consideration appropriately throughout the decision making process including challenge and review from relevant committees and stakeholders?
2. Has your firm undertaken a review of the InsurTech implementation and the extent to which risk management activities have facilitated a better outcome? These learnings can then be taken forward to subsequent opportunities.
3. The review should include:
  - Effectiveness and engagement of key stakeholders with the risk process
  - Updating of risks/issues/actions
  - Whether actions were taken to mitigate or manage risks
  - Reporting of risks to the appropriate person/committee
  - Key learnings from the project
4. This should also include consideration of whether the project has appropriately mitigated or managed risks.

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## 5. Next Steps & Contact Details

- Receive further feedback, including further interviews
- Form conclusions and finalise report in Q2 2018
- Sessional meeting scheduled for October 2018 in Edinburgh
- Agree phase 2 activity, including working party membership

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# Questions



# Comments

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