



Institute  
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## How are insurers getting most value from their capital modelling?

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### Four areas of focus

**1.** Eight qualities

**2.** Value and model use

**3.** Business planning

**4.** Your team

## 1. Eight qualities

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3

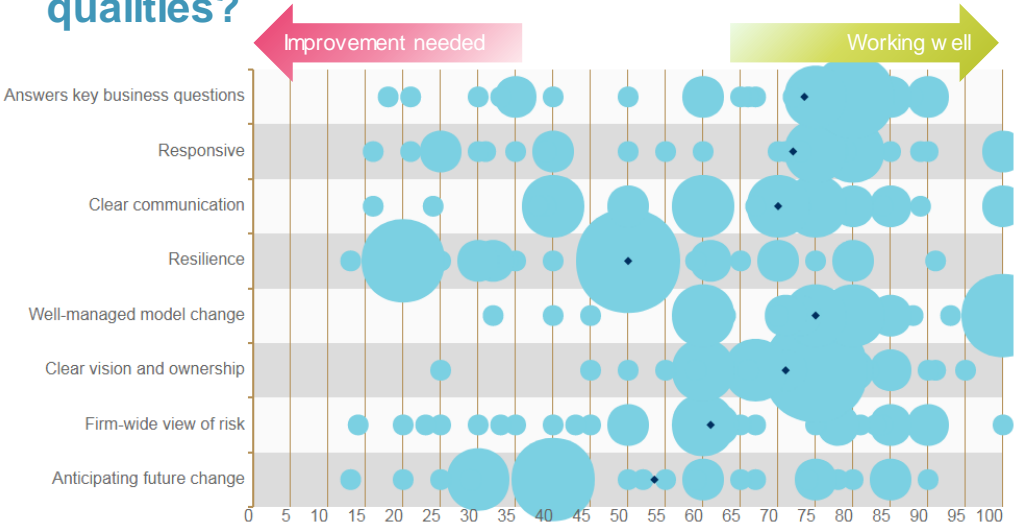
### Eight qualities of effective capital modelling



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4

# How do you rate your firm against the eight qualities?

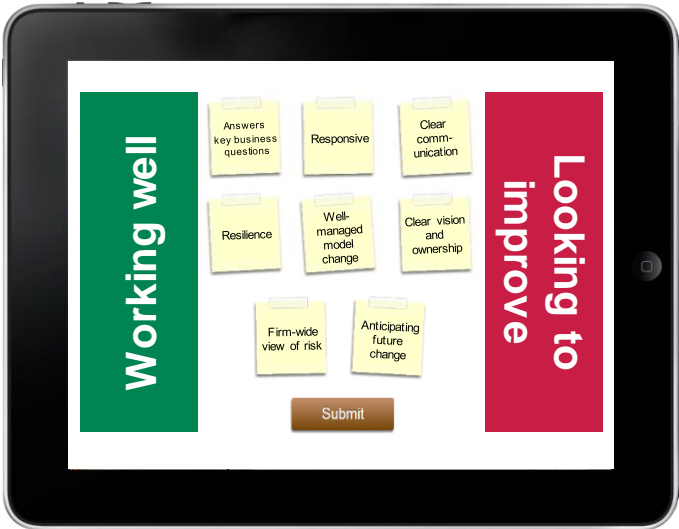


Source: LCP poll of Heads of Capital, November 2017

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5

## Board or committee workshop



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6

## Board or committee workshop



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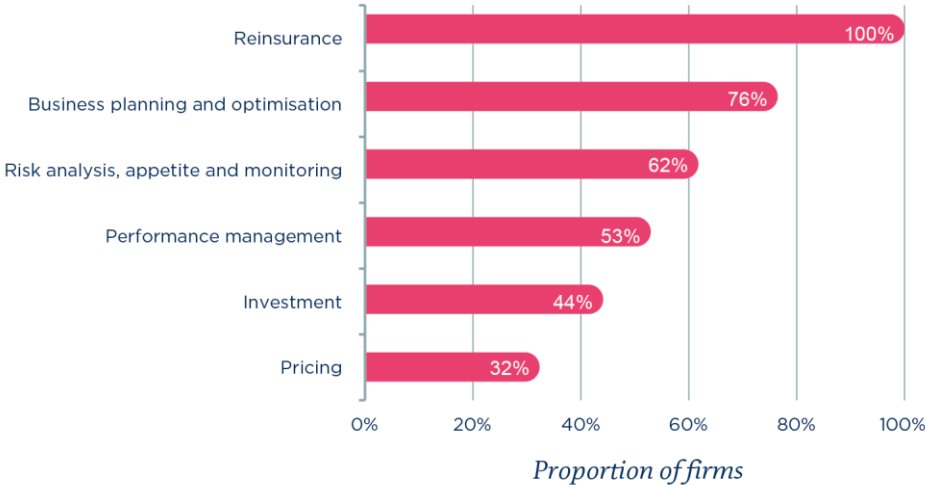
7

## 2. Value and model use

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8

# Model uses (in addition to capital setting)



Source: LCP market review – capital modelling 2017 – “How are insurers getting most value from their capital modelling?”

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9

# Conflicting (and often strongly held) views

*“Modelling is a critical part of business planning”*

**Vs**

*“It’s too circular to be useful”*

*“It’s useful for supporting pricing and/or investment decisions”*

**Vs**

*“This is better left to more specialised models”*

*“It provides a helpful input to remuneration”*

**Vs**

*“That’s not appropriate .. and can be dangerous!”*

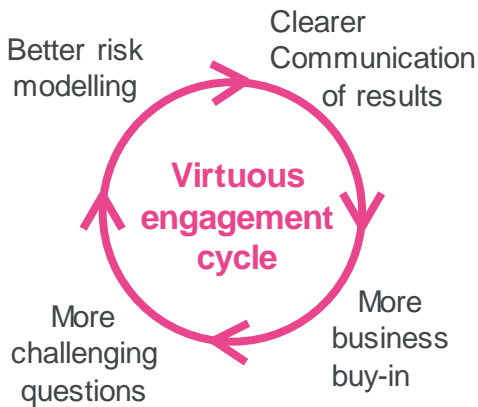


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10

## Virtuous engagement cycle

*“There was a little bit of interest ... then lots of interest ... then there was a steady pull on the model by the business as they realised the model CAN do something and they wanted it”*



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11

## Business understanding of model limitations

**Confirmation bias**

**Link to model uses**

**Results used out of context**

*“The business understands it’s ‘just a model’, but this is mentioned most when the model disagrees with preconceptions”*

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12

### 3. Business planning

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13

## What are the most challenging aspects of supporting business planning?

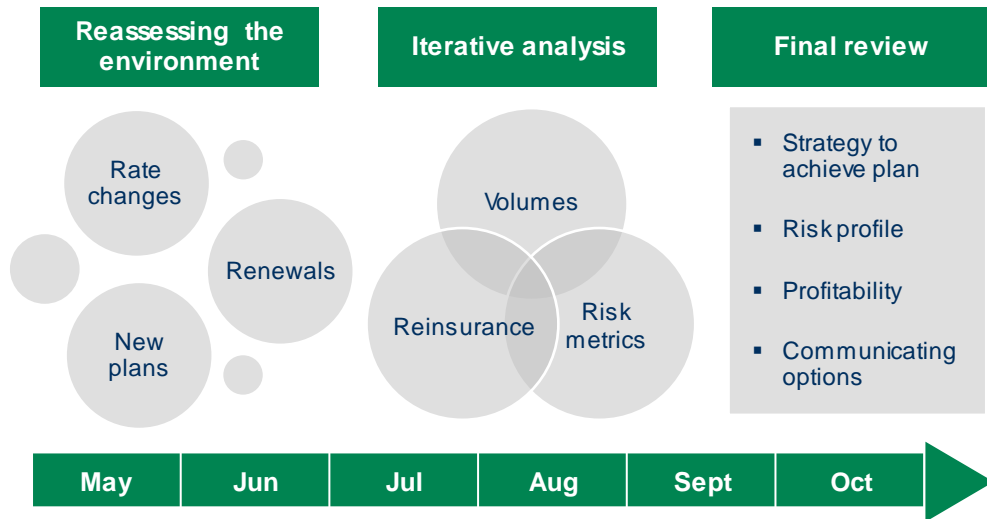
Business challenges		Operational challenges	
Aligning conflicting views 35%	Late changes 52%	Tight timelines 70%	Modelling changes to risk profile 4%
Agreeing risk measures 4%	Communicating uncertainty 26%	Poor quality data 26%	Long model run times 22%
Explaining counterintuitive results 35%	Business not engaged 22%	Managing version control 4%	Co-ordinating with other departments 22%

Source: LCP poll of Heads of Capital, June 2017

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14

## A framework for business planning



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15

## Helping everyone stay on track

				Risk Measures				Model run
	Reported	Premium £m	Profit £m	Capital £m	1 in 10 loss £m	Probability of loss (%)	Top Cat Scenarios £m	
<b>Risk appetite</b>				750	50	20%	310	
<b>Baseline results</b>	Board 22 May	987	55	690	25	18.0%	253	v17.3
Updated PPO risk parameters	Risk committee 26 May	-	+2	+25	+5	+1.2%	+23	v17.3.1
Increased motor volumes	UW committee 27 May	+30	+5	+5	-2	-0.8%	-	v17.3.2
<b>Latest results</b>	Rerun 28 May	1017	62	720	28	18.4%	276	v17.4
<b>Risk headroom</b>				30	22	1.6%	34	
Option 1 - Reduce reinsurance		+101	+5	+25	+5	-0.3%	+20	v17.4.0.1
Option 2 - New product launch		+50	+4	+5	+8	+1.0%	+30	v17.4.0.2
Option 3 - Both		+151	+9	+26	+11	+0.8%	+50	v17.4.0.3

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16



## Tailoring it for your business



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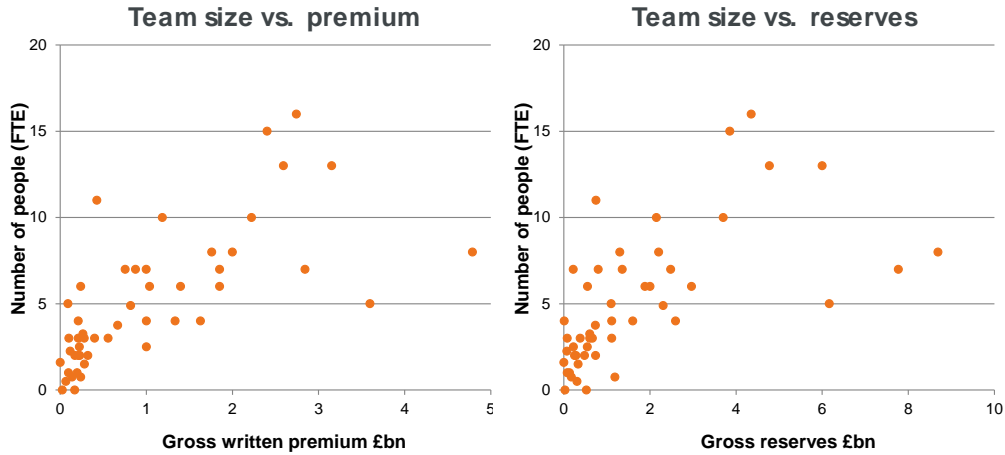
17

## 4. Your team

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18

# Capital modelling team sizes

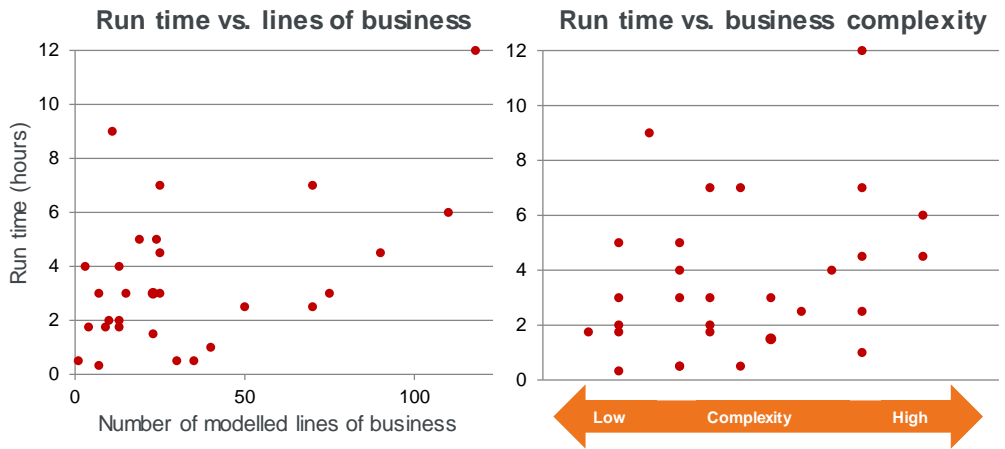


Source: LCP survey and discussions with 50 insurers, 2017 and 2018

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19

# Model run times



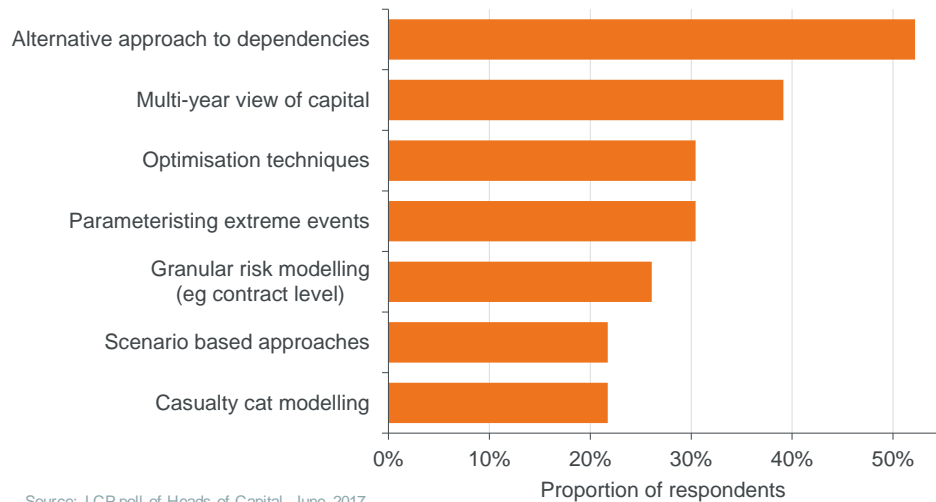
Four firms have a run time of between 18 and 48 hours. To improve readability, these are not shown on the above charts. They have between 3 and 200 lines of business and a range of business complexities.

Source: LCP survey of 35 insurers, 2016/17

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20

## What aspect of capital modelling would you research if you had a university team?



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21

## Where next?

**1.** Eight qualities

**2.** Value and model use

**3.** Business planning

**4.** Your team

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22

## More views from the market

*“Yes the model adds value. However, once the catastrophe and reinsurance calculations have been done, there is a lot of regulatory baggage”*

*“Common structures provide a framework, like knowing where to look in a newspaper for the crossword and editorial”*

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23

**Questions**

**Comments**

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24