



Actuarial Transformation – The Future Actuary

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1. Introduction

Actuarial Profession is at cross roads

- Actuarial functions are at risk of becoming a compliance function unless individual actuaries, actuarial functions, and the profession undertake a fundamental transformation
- The profession in Australia recognises it and has undertaken a comprehensive re-branding campaign
- There are tools and frameworks which can facilitate transformation





2. What is Actuarial Transformation?

Changing the operating model, supporting technology or process for an actuarial function to recognise benefits for the organisation such as

Faster close (reserving)

Headcount saving

Transfer of resources to more value-adding activities

Better analytical capability

Reduced operational risk

Regulatory compliance

Enhanced service to organisational customers (e.g. UW, Finance, Claims, etc)

Actuarial department support of organisational strategy development and execution

Historically transformations triggered by:

- Regulatory changes
- Management initiatives
- Mergers and acquisitions
- Operational failures
- Organisational changes



3. What does a transformation achieve?

Improved Efficiency:

- Reduce manual processes
- Automate regular reports
- Greater accuracy and consistency
- Make better use of actuarial function for analysis and insights

Enhanced Controls:

- “Single source of truth”
- Reduce operational risk from poor inadequate processes
- Increase accountability through governance

Increased Effectiveness:

- Enhance support provided to key decision makers
- Delivering insights not reporting
- Enhance outcomes for key stakeholders, not only actuaries

Talent Management:

- Focus on analytics and not on manual processes
- Attract and retain top talent
- Improved perception of actuarial value add increases opportunities for actuaries



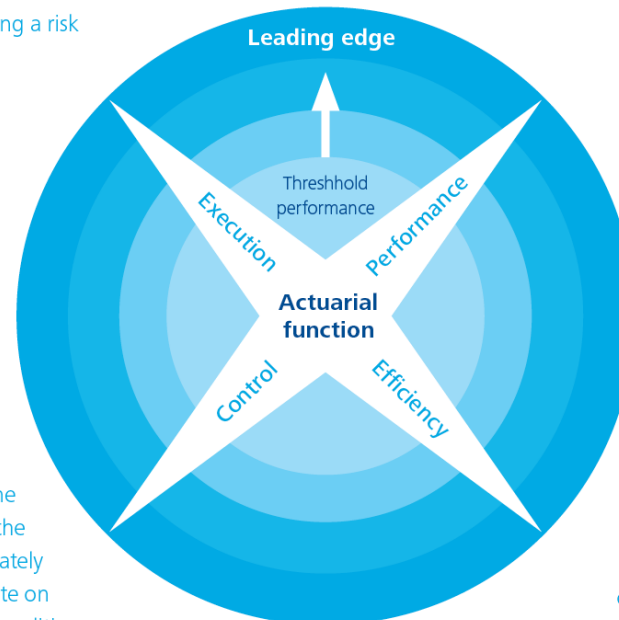
4. Four Faces of the Chief Actuary

Catalyst

Catalyse behaviours across the organisation to execute strategic and business objectives while at the same time creating a risk intelligent culture.

Strategist

Provide actuarial leadership in determining strategic business direction, and supporting other strategic activities such as product development and pricing vital to the future performance of the company.



Steward

Protect and preserve the critical frameworks of the organisation and accurately report and communicate on financial position and condition to internal and external stakeholders.

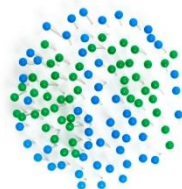
Operator

Balance capabilities, talent, costs, and service levels to fulfill the actuarial function core responsibilities efficiently.



5. Global survey on the actuarial function

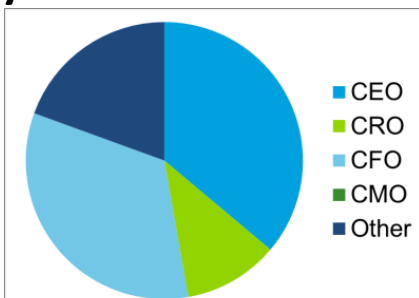
Geographic coverage: 100 responses from Australia, Canada, Denmark, Hong Kong, South Africa, Sweden, UK and USA



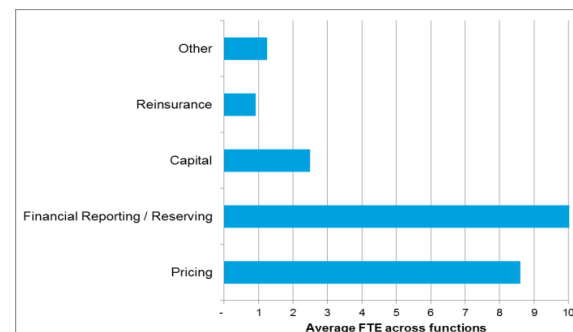
Responses split roughly 50/50 between small and large teams with the following FTE mix:

Average Team Structure	Small	Large
Senior Qualified	3	15
Newly Qualified	4	14
Students	8	19
Not Studying	1	5
Other	1	5

The Head of Actuarial reported primarily to the CFO or CEO:



The functions covered:





6. Emerging themes

We identified 7 emerging themes:

1. Current actuarial functions are at full capacity but not at full potential
2. Key drivers are bad data and technology
3. Operational and process efficiency
4. Overcoming constrained resources to transform the nature of actuarial work
5. Aligning with business and strategy
6. Actuaries as catalysts for change
7. Creating perceptions we want for the collective actuarial profession/function



6.1 Actuarial functions are at full capacity but not full potential

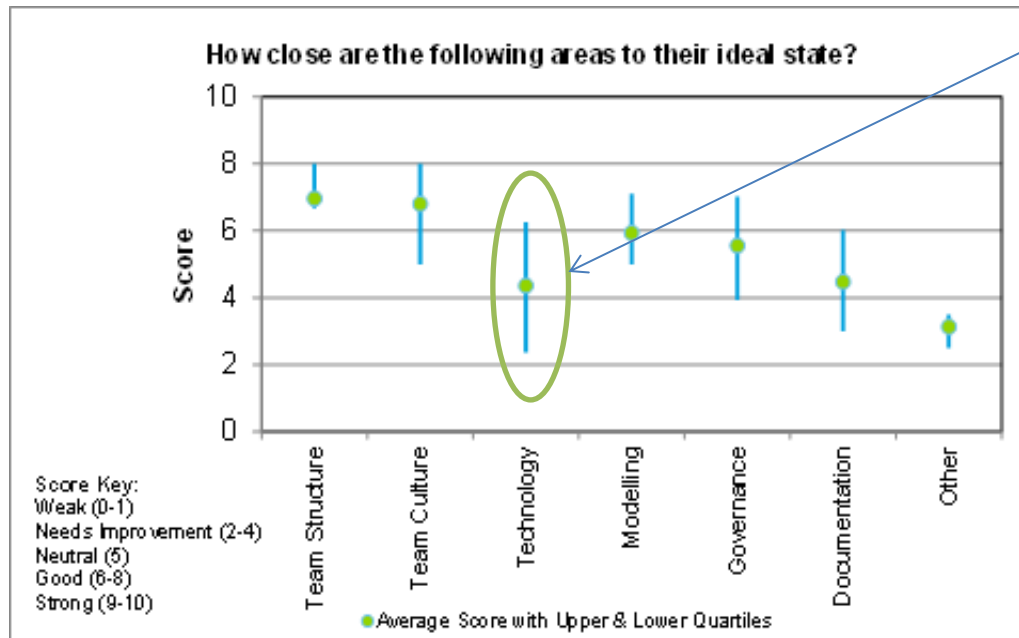


— Future State — Current State

- Historically the actuarial function was a influencer of insurance company strategic direction
- Currently actuarial functions are focussed on operational, rather than strategic outcomes
- The actuarial sphere of influence remains in reserving and pricing which is protected through insurance regulations
- Our view is that actuarial functions are very much taken up with performing their operations (but not completely efficiently), and are as a result missing the bigger business and strategy picture.



6.2 Key drivers are bad data and technology



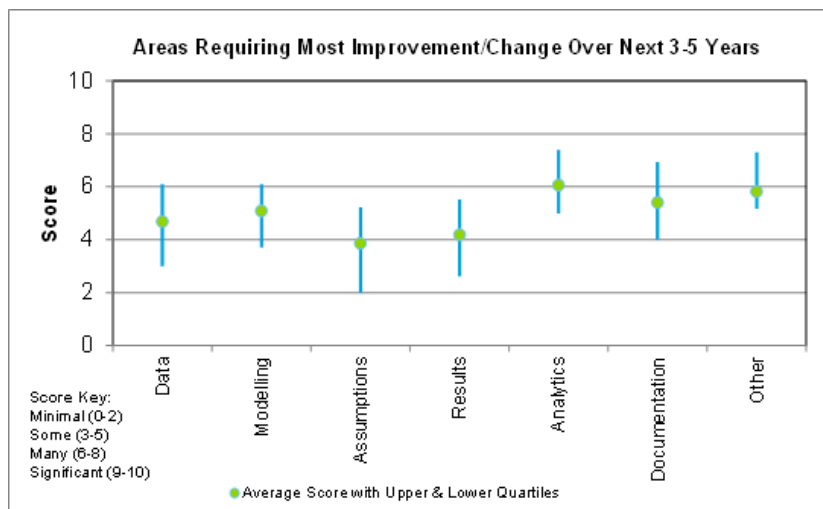
- Technology is furthest away from the ideal state according to our respondents
- Average responses for each area are all less than 8, that is no category is rated as strong. All are rated as needing improvement or bottom end of good, signifying there are very few aspects that are near the ideal state.
- Modelling, a core actuarial element, had an average response of 6 which is at the lower end of “good”
- Another key improvement area is documentation which was rated at the lower end of neutral or needs improvement.

... There are tools available to improve all of these elements...



6.3 Operational and process efficiency

- Operational inefficiencies can prevent the actuarial function from carrying out value added analysis. Respondents suggest that data, models, assumptions and results require some improvement while more changes are needed for analytics.
- Generating efficiencies in production processes can free up the actuarial function to undertake more analytics.



Operational efficiency encompasses:

- Team structure
- Onshoring vs. Offshoring
- Insourcing vs. Outsourcing

Process efficiency encompasses:

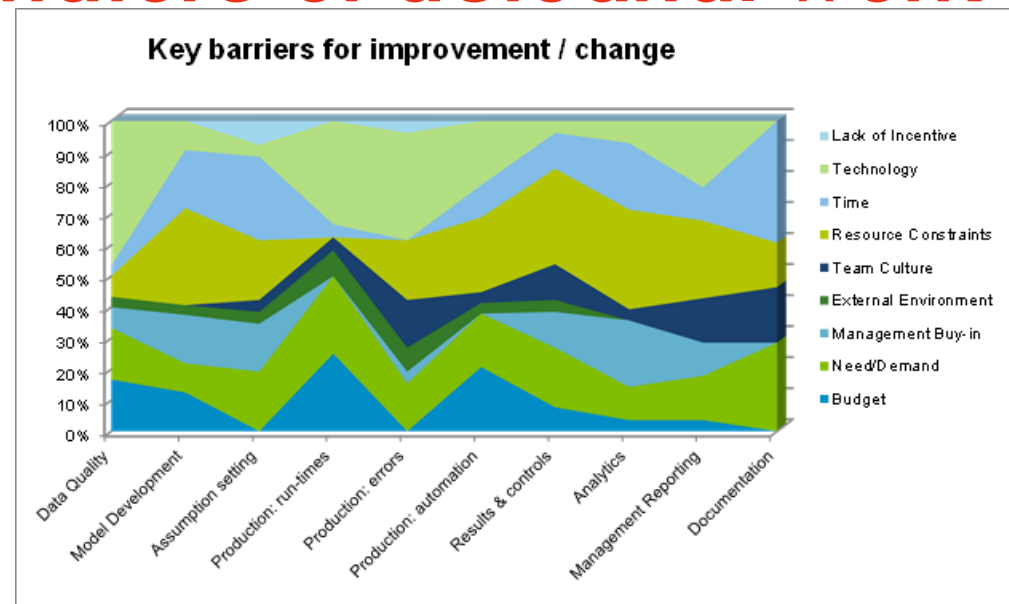
- Well organised systems
- Automated and repeatable vs. manual processes
- Easily accessible data

...Assessing the maturity of the actuarial function is key to improving operational and process efficiency...



6.4 Overcoming constrained resources to transform the nature of actuarial work

Element	Key Barrier to Improvement
Data Quality	Technology
Model Development	Resource Constraints
Assumption setting	Time
Production: run-times	Technology
Production: errors	Technology
Production: automation	Resource Constraints
Results & controls	Resource Constraints
Analytics	Resource Constraints
Documentation	Resource Constraints



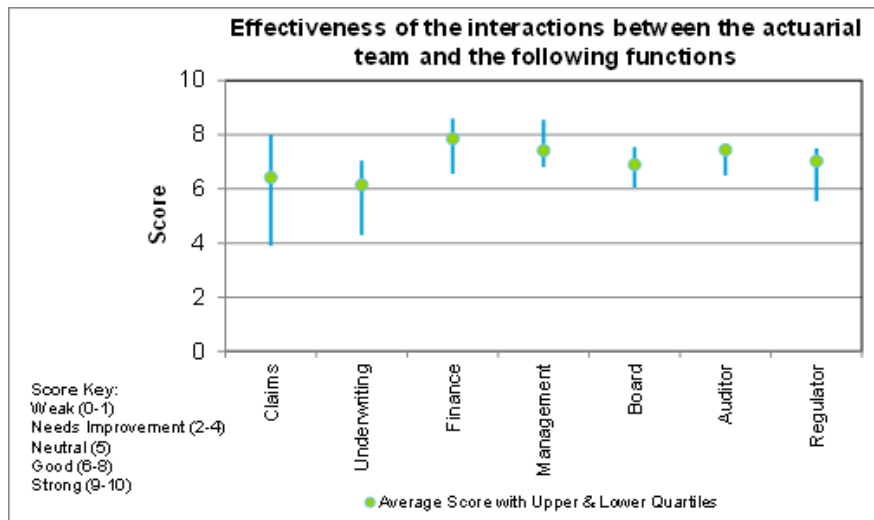
...Under a resource constrained environment, value can be found. Actuarial functions can focus on the key (not all) barriers ...

...These elements of the actuarial function are connected and it is key to understand their interactions when overcoming the barriers to improvement...



6.5 Aligning with business and strategy

Strong relationships and links to other functions are a key requirement for aligning with business and strategy



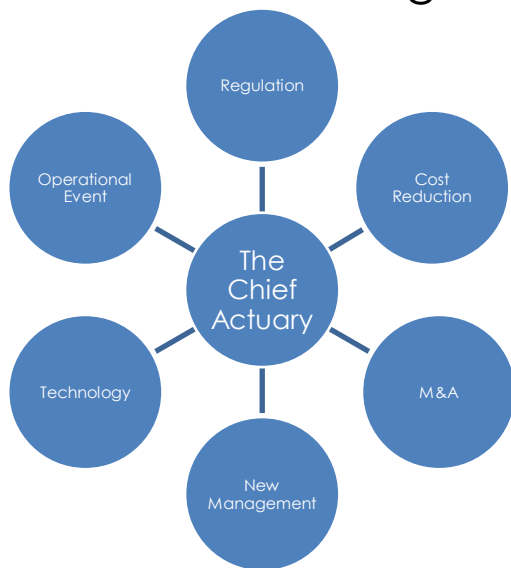
- Chief actuaries think that the actuarial function on average has good (upper end of good) interactions with Finance relative to Claims and Underwriting (neutral to good categories), however this depends on the nature of actuarial work
- Actuaries, with their strong understanding of claims experience should be an invaluable business partner for the claims and underwriting teams.

...Actuarial insights can add much value to various functions of the organisations. There are tools available to enhance these connectivities...



6.6 Actuaries as catalysts for change

Drivers of Change



Driver of Change	Result
Regulation, M&A, cost reduction, etc (External)	Reactionary, layered on existing processes, resistance to change
The Chief Actuary (From within)	Responsive, strategic, forward looking, challenge the status quo

...If we do not drive change, then we will, by default, be recipients of it...

...Other professions such as Accounting and Risk Professions have had the benefit of a transformation to help them evolve and stay relevant...



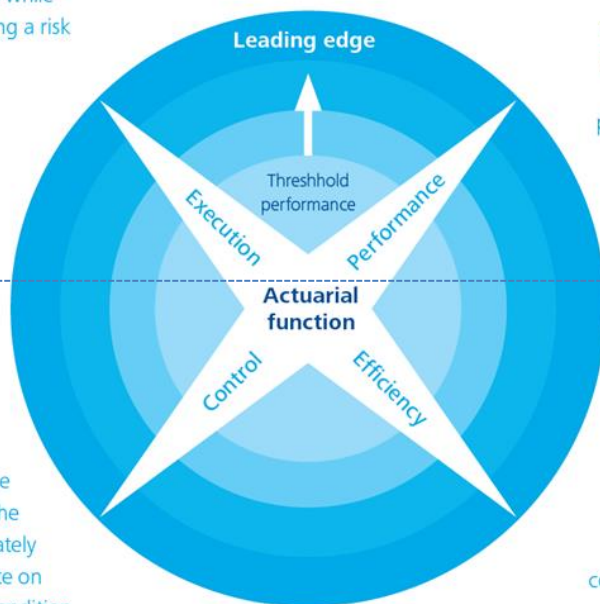
6.7 Creating perceptions we want for the actuarial profession/function

Catalyst

Catalyse behaviours across the organisation to execute strategic and business objectives while at the same time creating a risk intelligent culture.

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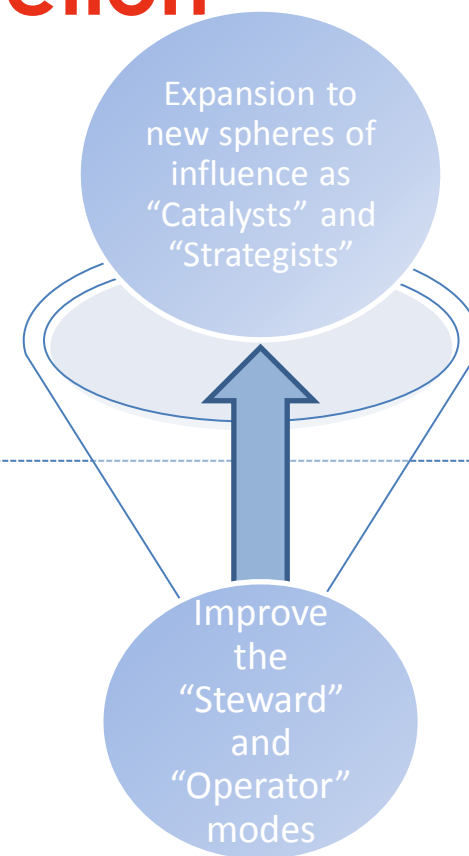


Steward

Protect and preserve the critical frameworks of the organisation and accurately report and communicate on financial position and condition to internal and external stakeholders.

Operator

Balance capabilities, talent, costs, and service levels to fulfill the actuarial function core responsibilities efficiently.





7. Conclusion

- What our stakeholders want has changed from accuracy and precision to insight and understanding
- Actuarial functions are highly focused on the operational aspects of running the function which has not left bandwidth for business and strategic aspects
- Fundamental change is required to generate ability to focus on other aspects – an Actuarial Transformation
- There are frameworks and tools to help make the change
- Deloitte will publish an expanded Point of View on this subject.

