



QUANTIFYING RISK, ENABLING OPPORTUNITY

Administration and System Risk: Can we pass the buck?

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Two Definitions

- ***An actuary*** is a professional who applies analytical, statistical, mathematical and strategic thinking skills to value, bring greater understanding and improved decision making to uncertain future events
- ***Operational risk*** is the risk of loss arising from inadequate or ***failed internal processes, people and systems***, or from external events. Operational risk includes legal risk, but excludes risks arising from strategic decisions and reputational risk.

Operational Failures Relevant to Actuaries

Up to now the cost of system failures are often unknown and can be fixed or allowed for in the reserves through margins

- Incorrect Fund Allocations
- Loss of Policy History
 - Specifically unit build-up
- Benefits not discontinued after policyholder / member reaches maximum age
- Failed system / data migration
- Incorrect bonus allocations
- Failed benefit / premium escalations
- Incorrect premium collection or lapse rules

Why do Financial Institutions Fail?

Insurers*

- **management problems** appear to be the root cause of every failure or near failure
- Risks can interact in complex ways, including
 - causal links between different types of risk (for instance **operational risks** and underwriting risk or claims evaluation risk) and
 - unexpected correlations (particularly between certain asset and underwriting risks);”

Banks**

- ...**management** and control weaknesses were fundamental in almost all cases;
- **operational risk** was a significant factor in many cases;
- a major risk factor was over-ambitious expansion, often into new areas, with **systems and controls lagging behind**;
- external risks are a significant factor, but usually expose other internal problems contributing to the difficulties;
- difficulties usually arose from **different factors in combination**;

*Managing Risk: Practical lessons from recent “failures” of EU insurers, William McDonnell (2002)

** The Causes of Banking Difficulties in the EEA 1988-1998, Groupe de Contact (1999)

Case Studies: Fedsure Life

“A number of adverse events that occurred in a relatively short period of time pressurised the management and **systems** of Fedsure Life beyond its capabilities. The key financial effects thereof were poorer bonuses allotted to policyholders, reputational damage, and erosion of Fedsure Life’s financial strength. These adverse events were:

- **The operational challenges** of the Norwich takeover;
- The problems at Fedhealth and TMA;
- The curatorships of FBC Fidelity and Saambou; and
- The unforeseen deterioration in the stock market and the value of financial shares, and in particular the Investec Group“

“There are indications of shortcomings in Fedsure Life’s management and **systems** which, if they were more robust, would have enabled Fedsure Life to better withstand the pressure referred to in ... above. “

Inspection Report submitted to the Registrar of Long-Term Insurance in terms of the Inspection of Financial Institutions Act, No. 80 of 1998 by George Marx Flip Stander
<https://www.fsb.co.za/departments/communications/documents/fedsure%20report%20publication%20version.pdf>

Case Study: FSA EU Failure

An insurer with poor internal systems and controls consequently gave inappropriate and insufficient instructions when outsourcing to a claims manager.

- overpayment of claims
- loss of business from poor levels of service and
- delayed and garbled claims data.

- under-pricing and poor risk selection
- an ill-fitting reinsurance programme
- under-reserving
- the high cost of attempted remedial action.

Managing Risk: Practical lessons from recent "failures" of EU insurers, William McDonnell (2002)

Case Study: Other Operational Failures

Company	Scenario
Seymour Pierce	• A fraud went undetected at stockbroker Seymour Pierce for three years during which time an employee creamed off £150,000 of company and clients' money.
Towergate	• failed to catch deficits in the accounts over eight years due to shoddy systems • fined for failing to spot a £12.6m hole in its client money accounts.
Mitsui Sumitomo Insurance Company (Europe):	• Failed to ensure the effective and timely implementation of a new IT administration system which led to shortcomings in management information available to the board.
AIG	• Sold credit default swaps, using the AAA rating. • Key man dependency and inappropriate underlying systems meant an inability to monitor exposures on a regular basis. • Management unfamiliar with underlying risks and economic requirements. • Concentration leading to company contagion.

Looking Forward

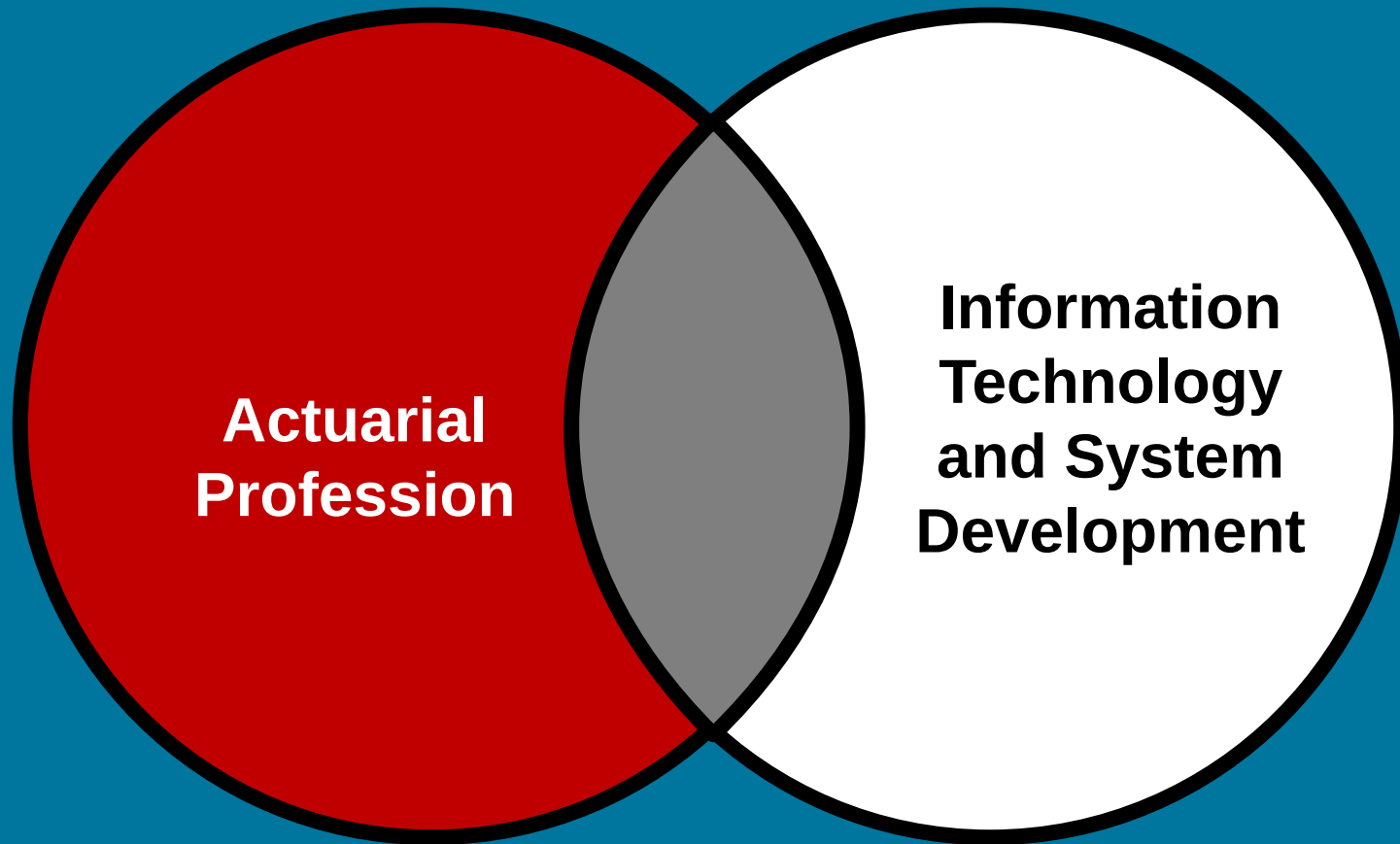
Actuarial Requirements

- IFRS17
 - Companies are embarking on multi-million Rand projects to change their systems
- SAM
 - An insurer's actuarial function is responsible for evaluating and providing advice on the internal controls relevant to actuarial matters referred to section 14 of GOI 3

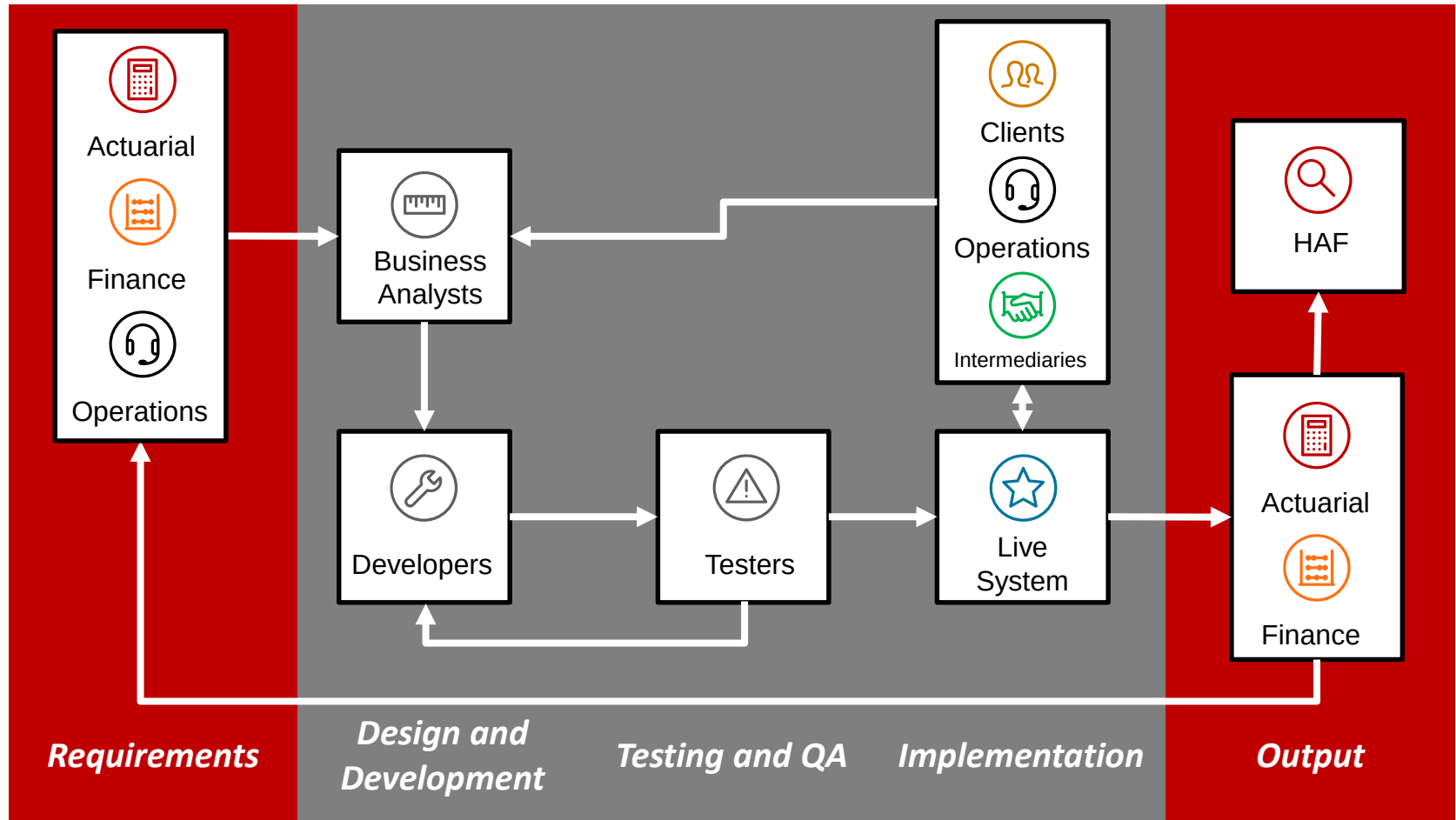
Potential Problems

- Little actuarial Involvement in decision makings
- No governance body for IT
 - No minimum standard for software
 - Anyone can develop a system
 - Little responsibility from or accountability from everyone
 - Little quality guarantee
- No minimum timeline or penalties on implementations
- Development with no experience in insurance
- No standard system audit process

How do we bridge the gap?



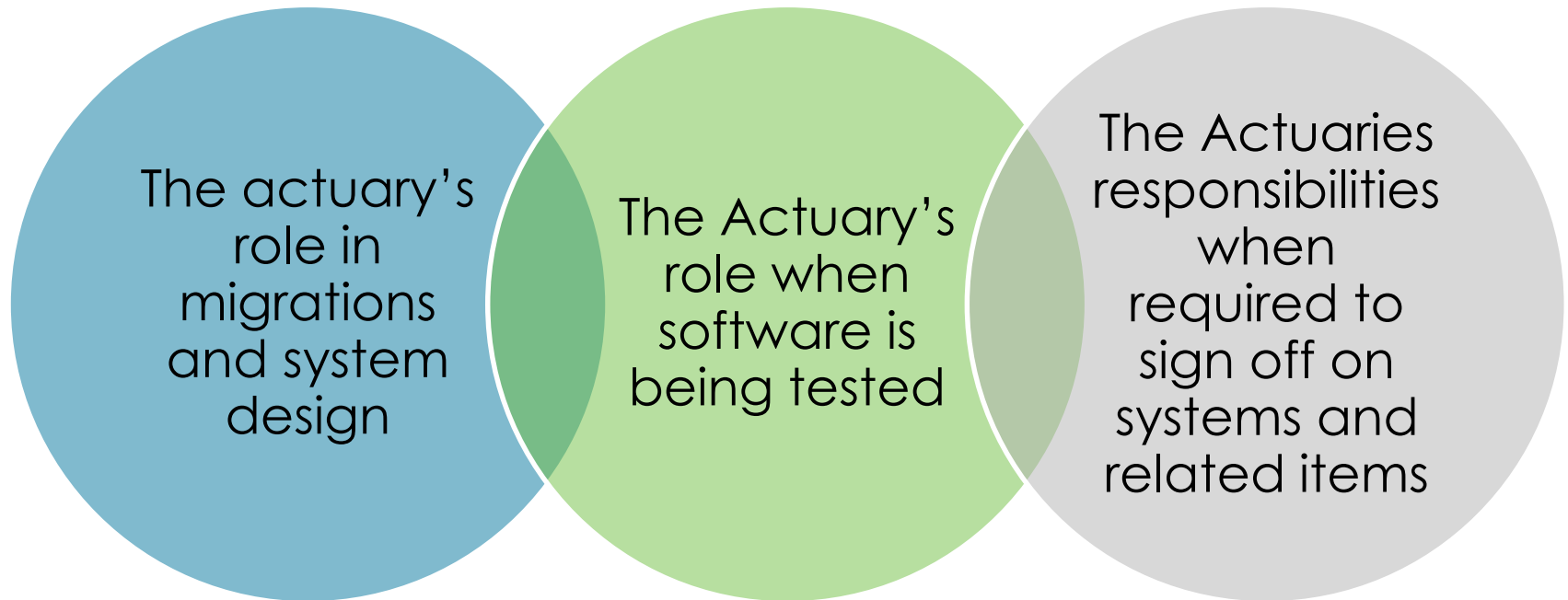
System Stakeholders



What Does the Systems Committee Aim To Do?

- Create awareness of operational risks associated with an institutions' systems
- Providing assistance to members who are currently involved in this work
- Protect the profession's reputation:
 - Producing standards and best practise guidance notes
 - Provide guidance on the actuary's responsibility
 - Ensure complete relevant and appropriate data is used
 - Aim is not to be prescriptive

Targeted Areas for Guidance



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Get Involved!

- Send any thoughts or suggestions
- Meetings on the third Thursday of every month
- Please participate in surveys

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