

**The Actuarial Profession**  
making financial sense of the future

**Life Conference and Exhibition**  
*Keith Bevan & Anthony Bentley*

**Actuaries in ERM**  
Making ERM relevant to the actuaries

22<sup>nd</sup> November 2011

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## Agenda for this session

- An introduction and explanation of ERM
- The main components of ERM
- Impact of Solvency II
- What does it take to be a CRO
- CERA
- Opportunities for Actuaries



## What is Enterprise Risk Management?

### Three core themes

strike a balance between too much risk and not enough risk

risk-taking ..is aligned with its objectives

incorporating risk information into strategic planning, management decision making, product design and more.

*UK Actuarial Profession*

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## The Three lines of defence

### A common model to separate activities

#### The Board

##### First line of defence

- Day to day management, control and reporting of risk exposures in accordance with the risk appetite, strategies and policies set by the Board.
- Monitors the overall risk profile
- Ensures that adequate financial resources are maintained.

##### Second line of defence

- Assists the Board to formulate the firm's appetite for risk, risk and capital management strategies, policies and limit structures.
- Leads development, implementation and maintenance of risk frameworks
- Objectively challenges execution of actuarial, risk and compliance strategies, approaches and related management information.

##### Third line of defence

- Provides independent assurance on the design and effectiveness of the overall system of internal control, including risk management and compliance.
- Internal Audit is independent of the businesses, finance and actuarial functions and reports directly to the Audit Committee.

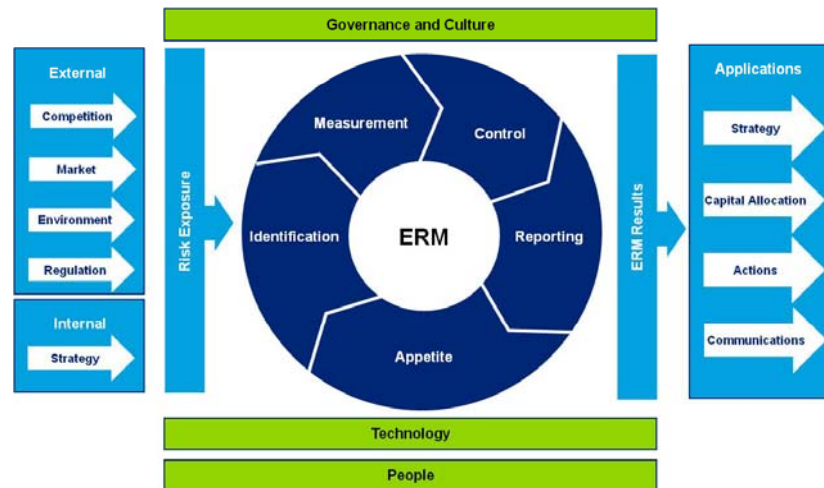
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## Effective ERM is an ongoing process

A possible ERM framework



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## Solvency II and Risk Management

Good Risk Management is important for Solvency II compliance

- Solvency II puts the management of risks at the heart of the regulations.
- The Solvency Capital Requirement is designed to be reflective of the risks that underlie the business.
- Risk Management is one of the 'required functions'.
- Solvency II will lead to improvements in:
  - Risk frameworks;
  - Embedding of Risk Appetite;
  - Demonstration of risk controls;
  - Improved Risk reporting; and
  - Documentation of risk policies

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## Own Risk and Solvency Assessment

The ORSA will become a key part the Risk Framework

- The ORSA process requires integration of:
  - Strategic planning,
  - Risk appetite,
  - Risk identification, and
  - Risk monitoring,
- As well as understanding of:
  - Short term and long term risks,
  - Emerging risks,
  - Interactions between risks,
  - Risk mitigation, and
  - Management actions



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## Risk Management and the Internal Model

Risk will have a key role in the Internal Model

- Risk Management has a role for Internal Model firms to:
  - Design and implementation
  - Testing and validation
  - Documentation
  - Performance analysis
  - Suggesting improvements
- Are all these tasks independent?
- What about the role of the actuarial function?

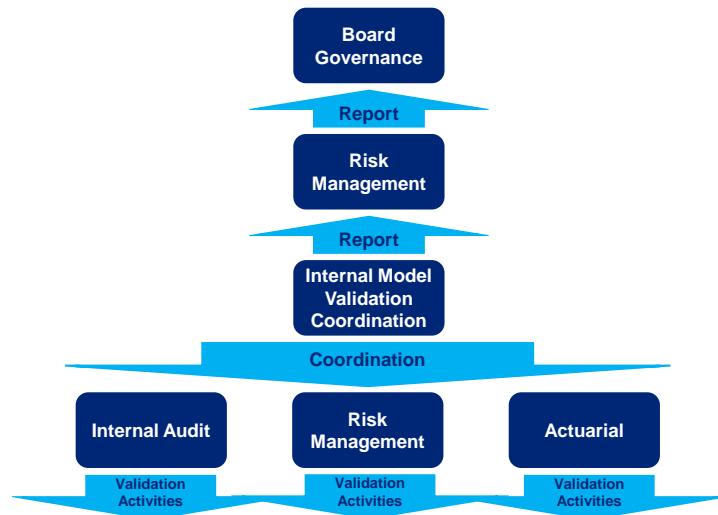
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## How can this be achieved in practice?

The coordination of validation approach



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## What is required to be a CRO today?

There are a number of skills required

UK Actuarial profession - key characteristics of an effective CRO were:

**“Managerial thinking, including leadership, the ability to see the bigger picture, thinking outside the box and pragmatic judgement”**



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## Ideal Skills of a CRO

- Effective politician
- Big picture thinking
- Thorough understanding (including technical detail)
- Knowledge of the business and industry
- Determination / Unswerving doggedness
- Gravitas and credibility
- Forward looking
- Imagination
- Commerciality



## Ideal Skills of a CRO – Do Actuaries Match Up

- Effective politician ?
- Big picture thinking ✓
- Thorough understanding (including technical detail) ✓
- Knowledge of the business and industry ✓
- Determination / Unswerving doggedness ✓
- Gravitas and credibility ✓
- Forward looking ✓
- Imagination ✗
- Commerciality ✓



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## **Precursors to Being an Effective CRO**

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- Board access (membership is better!)
  - Minimum of membership of the senior exec committee
- Trusted advisor to the CEO
- Budgetary control
- Resources
- No 'no go' areas
- Healthy fear
- Supportive governance

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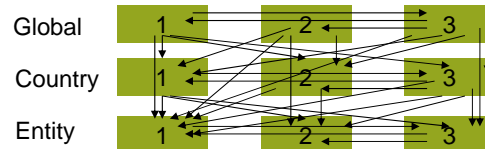
## **Plan of Action – What to do first**

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- Ask the obvious questions
- Overview – dashboards
- Find the controls embedded in the business
- Know the timetables
- Business planning
- Know the exposures
- Transactions / Due diligence
- Culture

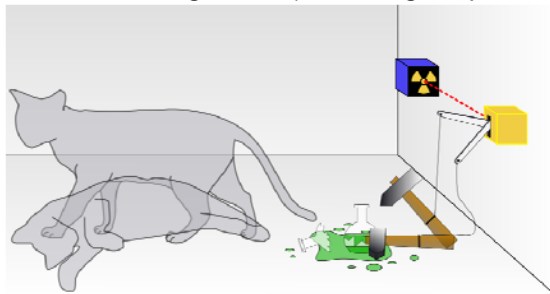
## Three Lines of Defence Model – In Reality

- It's only a model:
  - check what you're doing
  - consider the risks as a whole
  - independently review their operation
- Time is better spent thinking about attack
- Should it be applied to whole departments?
- Is independence good?
- How can this work in multi-dimensional organisations?



## Other Laws that Might Apply

- Heisenberg's Uncertainty Principle
  - Measurement affects the system
- Quantum Entanglement (Schrödinger's paradox)



- 1<sup>st</sup> law of Thermodynamics (Conservation of Work)



## What is CERA?

A new qualification for actuaries as a route to CRO?

- Chartered Enterprise Risk Actuary
  - A new internationally recognised qualification
  - Designed to provide the skills to work in a risk function
  - Covers a lot of the core areas required
    - Risk Modelling
    - Risk management tools and techniques
    - Economic Capital models
- But...
  - Mostly focuses on technical skills
  - More 'business savy' is required to be a CRO



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## Why should you consider CERA

Could be good for a career in risk

### What CERA-qualified actuaries say

- *"It opens the door to a wider risk management role outside the traditional actuarial life and pensions roles"*
- *'CERA is slightly different from the other subjects as involves more business knowledge and business experience and makes you stand out from the crowd and from other actuaries ...'*
- *'If you look at the changes the EU is making ... there is a lot more focus on risk and risk management, so even in traditional areas we are having to think about a wider range of risks ... '*

<http://www.actuaries.org.uk/becoming-actuary/pages/cera-chartered-enterprise-risk-actuary-qualification>

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## Enterprise Risk Management

### Why should actuaries be interested

- The role of risk management is changing
- Actuaries have a mix of quantitative and business skills
- Financial Risk capability is moving to risk function
- Importance of CROs is increasing
- The risk-management function will be responsible for the design, implementation, testing, validation and the analysis of the performance of the internal model
- This is pushing many actuarial and risk functions to challenge their current operating model



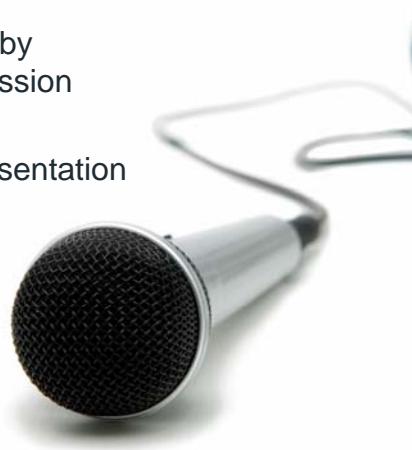
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## Questions or comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.

The views expressed in this presentation are those of the presenter.



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