

Agenda for this session

- An introduction and explanation of ERM
- The main components of ERM
- Impact of Solvency II
- What does it take to work in Risk
- CERA
- Opportunities for Actuaries



Actuaries in ERM

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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.

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The Three lines of defence

A common model to separate activities

The Board

First line of defence

- Control and reporting of risk exposures
- Monitoring against the risk appetite
- Monitors the overall risk profile
- Capital Management

Second line of defence

- Risk appetite
 - Risk and capital management strategies
- Policies and limit structures.
- · Risk framework
- Objectively challenge of execution

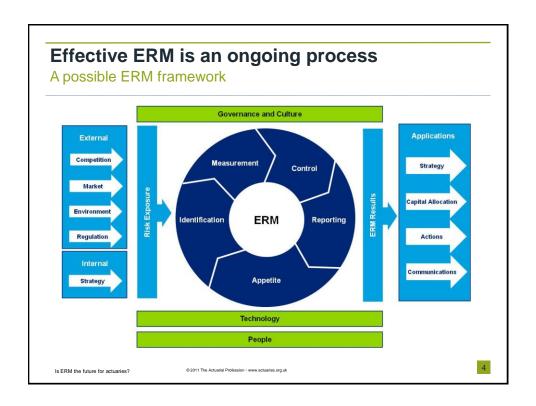
Third line of defence

- Independent assurance of the design and effectiveness
- Review the application of Internal control

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Solvency II and Risk Management

Good Risk Management is important for Solvency II compliance

- The heart of the regulations.
- Capital that reflects the risk profile.
- A 'required function'.
- Improvements required in:
 - Risk frameworks;
 - · Risk Appetite;
 - · Demonstration of risk controls;
 - Risk reporting; and
 - Documentation of risk policies

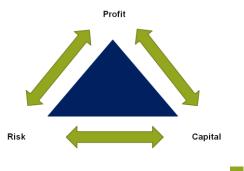
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Own Risk and Solvency Assessment

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,



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Own Risk and Solvency Assessment

The ORSA will become a key part the Risk Framework

- · And...an understanding of:
 - · Short term and long term risks,
 - · Emerging risks,
 - Interactions between risks,
 - Risk mitigation, and
 - · Management actions



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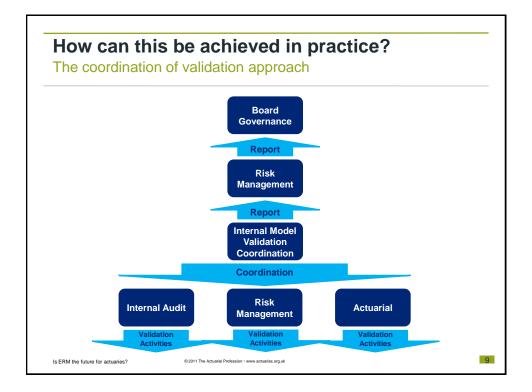
Risk Management and the Internal Model

Risk will have a key role in the Internal Model

- Risk Management's Internal Model roles:
 - Design and implementation
 - Testing and validation
 - Documentation
 - Performance analysis
 - Suggesting improvements
- · Independence?
- Actuarial function?

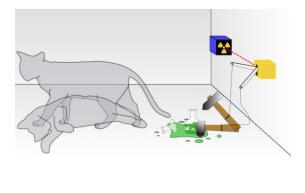
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Other Laws that Might Apply

Quantum Entanglement (Schrödinger's paradox)



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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 to work in a risk function

Business savy is required...

- 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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What is CERA?

A new qualification for actuaries as a route to CRO?

- Chartered Enterprise Risk Actuary
 - Internationally qualification
 - skills for risk management
 - Covers areas
 - Risk Modelling
 - Risk management tools and techniques
 - Economic Capital models
- Coverage...
 - technical skills Yes
 - 'business savy'? Helps to develop this



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Why should you consider CERA

Could be good for a career in risk

What CERA-qualified actuaries say

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

http://www.actuaries.org.uk/content/cera-charteredenterprise-risk-actuary-qualification-may-2011

http://youtu.be/-_-KoOtjLXs

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Enterprise Risk Management

Why should actuaries be interested

- · Risk management is changing
- · Quantitative and business skills
- Financial Risk capability
- · Importance of CROs is increasing
- · Role in Internal Model
- Challenge to current operating models



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