# ORSA for a Life Company

How to go about the Life ORSA –
Some practical considerations on the technical aspects
of completing an initial ORSA for a life company

# ORSA for a Life Company

- Set up by Life Committee to look at some of the practical aspects of producing a Life ORSA
  - No one way to complete an ORSA
  - Likely to be an iterative process
  - Will certainly evolve

- But worth setting out some possible approaches to
  - Encourage discussion
  - Share views

- Working Party
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# ORSA for a Life Company

- Overview
- Users and Expectations
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- Scenarios and Stresses
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- Risk Management
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# ORSA for a Life Company

- ORSA what is it?

- The Company’s Own Risk and Solvency Assessment

- Company’s view of its risks and its solvency requirements
  - In light of its particular business, market and plans

# ORSA for a Life Company

- As companies begin to plan their ORSA they have
  - Article 45 of the Directive
  - EIOPA guidelines
  - Little else

- This is not a mistake
  - Risk Management ≠ Compliance

# Overview

- ORSA is expected to:
  - take account for the Company's risk profile, risk limits and business strategy
  - demonstrate continuous compliance with the capital requirements
  - identify and assess the short and long term risks
  - be used in strategic decision making
  - be performed regularly and following any significant change to the risk profile
  - form part of the regulatory reporting process

- And at the same time be
  - Useful
  - Comprehensive
  - Readable and Concise

# Overview

- Benefits
  - better risk awareness
    - more insightful decision making
    - proactive risk management
  - focus on the risks that matter
    - regular, current and relevant information
  - increased alignment of risk appetite and business strategy
  - improved capital efficiency*

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# Users and Expectations

- Key Parties
  - Actuarial and Finance – 1st Line – Much of the quantitative
  - Risk Management – 2nd Line – Assessment of risks and output

  - Management – need to buy into and use the ORSA
  - Board – need to oversee and understand the ORSA

  - Because of this vital that these last two groups take part in the journey along the way

  - Other Contributors and Users

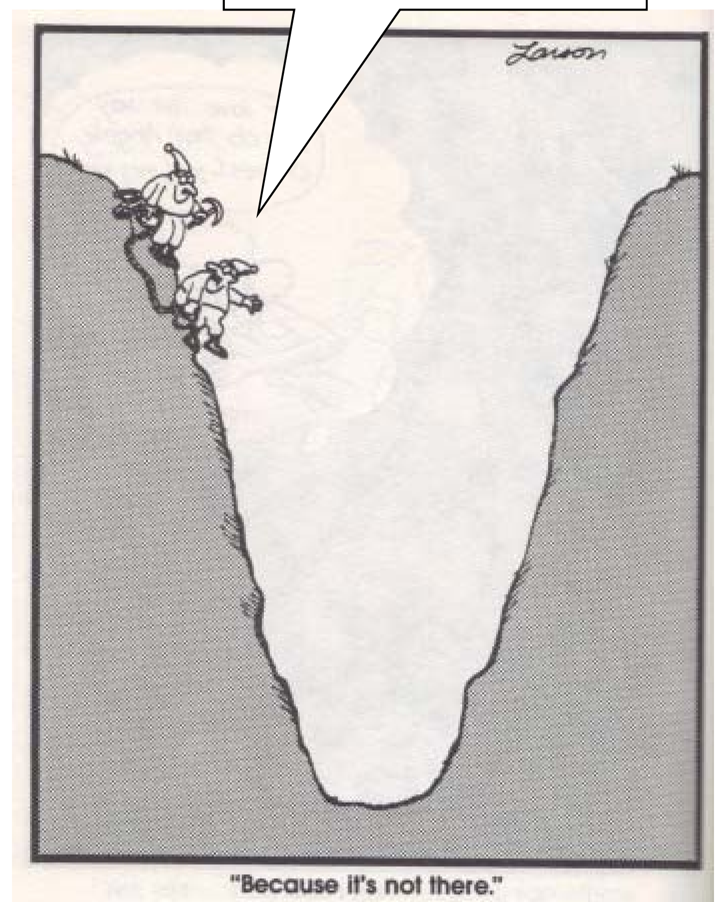
# CEO and Senior Management Team

- Risk Management
  - a journey not a destination

- Developing the ORSA will help companies to formalise how they:
  - measure the risks
  - compare the risks
  - articulate the risks

- Important that SMT engage appropriately along the way.

Because it’s not there



# I'm a Board Member what should I know?

- The ORSA process should be such to allow the Board to understand:
    - The risk profile of the company and the key drivers
    - Is there sufficient capital to support the current business plan
    - Is the company likely to be in line with its risk appetite going forward
    - What risks should be monitored more frequently
    - Material changes to the risk profile over the most recent period;
    - Risks not covered in the regulatory Capital
    - Key sensitivities in the balance sheet
    - Key drivers of expected profits

# Supervisors and the ORSA

- Supervisors tasked with ensuring that Companies are prudently managed.
- By boards and staff that understand the market environment and business risks they are carrying
- ORSA is a tool to
  - Help management articulate their stewardship
  - Allow supervisors challenge and comment
- As risk management evolves so too will the ORSA
  - As they see all ORSA reports
  - Supervisor likely to be instrumental in shaping best practice

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# Policy

- Breadth of ORSA process is very wide
- To ensure that process is coherent and valuable important to have a clearly defined policy that sets out: -
  - What you are aiming to do
  - How are you going to do it
  - Who is going to do it
  - When are they going to do it
  - How are you going to validate and challenge it
  - What actions will it lead to
  - What will make you change any of the above
- Guidelines 3, 4, 5 and 15

# Policy

- Should be approved by the board
  - Which helps to ensure appropriate engagement with Senior Management and the Board

- Policy should
  - Set out responsibilities, goals, processes and reporting procedures.
  - Justify the frequency of the regular ORSA and circumstances for a non-regular ORSA.
  - Help the board to challenge the ORSA process.
  - Describe how the process and outcome will be evidenced.

- One possible policy outline provided in report

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# Report

One possible outline*

1. Company Risk Profile

2. Current and future solvency position

3. Validation, Challenge and Assessment

* Adapted from “The ORSA: What is it and why is it good for you.” Willis Re:

# Report

1. The company's risk profile

   - The company, its business, market and drivers
   - Company's risk identification and assessment
   - Risk appetite
     - capital strategy
     - capital aims in terms of shocks and extreme shocks
   - Strategic plan and link to risk appetite

# Report

2. The Company's current and future solvency position

– Base case  - forecasted solvency on current business plan.
– Stress testing and scenario analysis
– Capital Management Plan
– Risk Mitigation and Risk mitigation strategies
– Management Actions

# Report

3. Validation, Challenge and Assessment

- Management review and conclusions
- Board review and challenge. Specifically in relation to:-
  - Policy
  - Process
  - Scenarios
  - Results
- Reconciliation to SCR and assessment of additional risks considered as part of the ORSA process.
- Evidence of link between ORSA process, strategy and capital management.

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# ORSA and Economic Capital

- What is Economic capital? No single definition but key features are:
  - sufficient capital to protect against adverse outcomes
  - with a given confidence level
  - over a given time horizon

- Should be consistent with how a company manages its business and its business strategy

- For example:
  - a business in run off has no opportunity to make future profits so may require a high confidence level; and also may consider the time horizon to the end of the run off
  - a company selling annuities may consider a longer time horizon
  - a large group may decide to target a particular credit rating
  - a subsidiary may look to the regulatory requirement  for capital efficiency

# Economic Capital vs. Regulatory Capital

- The purpose of regulatory capital is to protect policyholders
  - sufficient capital to pay out even in the event of some adverse event or experience

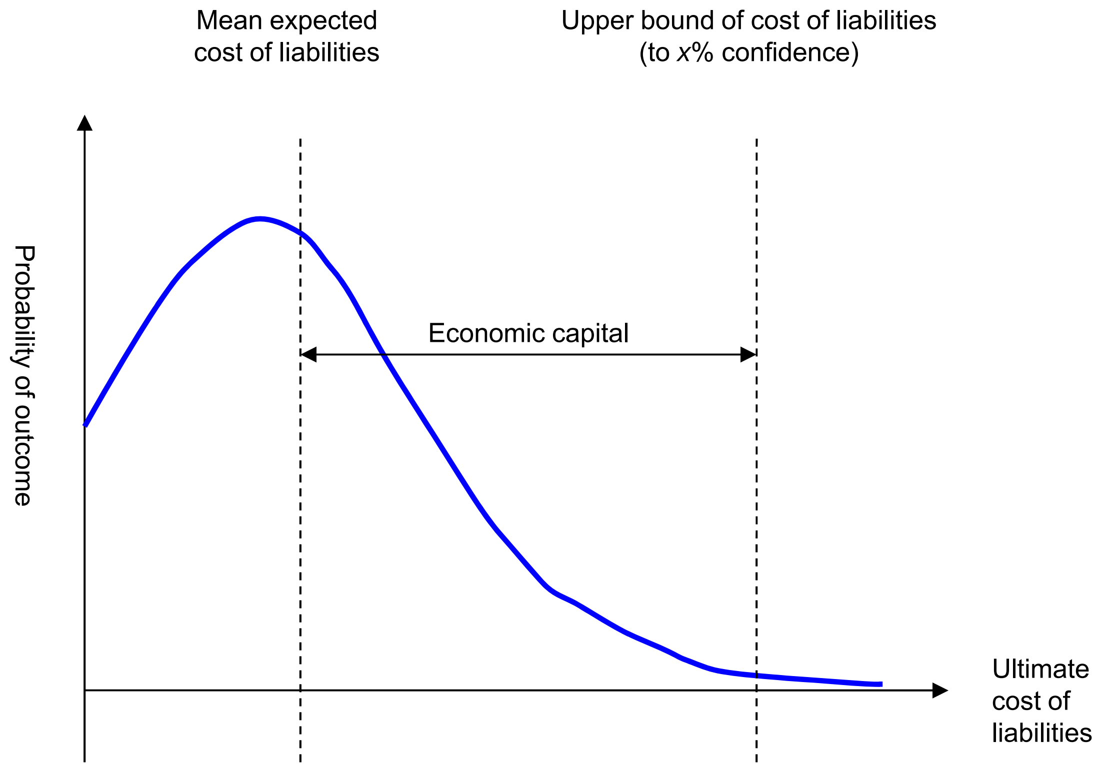
- The purpose of economic capital is:
  - to protect against adverse experience
  - to support business plans and strategy
  - to ensure the viability of the company

- If the regulatory capital is to protect policyholders then economic capital is what the company needs achieve its business plans and protect the future performance and viability of the business.

- The ORSA is an assessment of the adequacy of the Economic Capital not an alternative measure of Regulatory Capital

# How to calculate Economic Capital

- Generally need a financial model of the underlying business
  - capturing all the assets and liabilities
  - projecting the development of the business over the time period



# Benefits of Modelling Economic Capital

- Improve understanding of the business dynamics
- Understand sources of profitability
- Calculate the capital used by different business lines
- Help consider different strategies
- Understand the impact of possible extreme events

# Developing a Standard Model into an EC Model (1)

- Need to Consider
  - How to incorporate new business
  - What confidence level and time horizon to use
  - Impact of the stresses on different risk factors
  - How to aggregate risks
  - What additional risks need to be included

- Additional risks include:
  - Pricing risks – loss of profitability/pressure on margins
  - Liquidity risk
  - Sovereign bond risk
  - Changes in the legal or fiscal environment

  - Emerging Risk
  - Hard to quantify risks such many operational risks
  - Particular Scenarios which may lead to actions rather than Capital eg Eurozone breakup

# Developing a Standard Model into an EC Model (2)

- Calibration of stress factors
  - Could start with the standard model calibrations
  - Or start with Group calibrations - adjusted if required
  - larger / long established companies could use their own data, if they can meet the tests and standards required
  - expert judgement – a topic in itself

- Validation of the standard model
  - Even if using the standard model, for the ORSA a company needs to consider at least:
    - company specific risks
    - If the standard parameters/methods are appropriate

# Economic Capital and Risk Appetite

- A company's risk appetite statement is an important element of the ORSA

- Economic Capital can define overall capital objectives
  - eg a company may have a risk appetite statement saying that they wish to maintain 1X0% of the required capital

- Economic capital can be used to:
  - define risk limits in terms of an economic capital measure
  - ensure overall solvency
  - help understand the impact of proposed business decisions
    - e.g. changes in volume mix, new products, changes to investment strategy etc

- Guideline 4(b) – The ORSA policy should ….. include additionally at least consideration of the link between the risk profile, the approved risk tolerance limits and the overall solvency needs;
  - Economic capital should provide that link

# Practical obstacles

- No magic answers unfortunately

- Some obstacles to think about are:
  - availability of resources
  - balancing the use of approximations with having sufficient detail
  - setting assumptions for risks, in particular ones specific to the company
  - allocating overall economic capital to specific risks/products
  - IT resources e.g. if using a stochastic model
  - developing a model that is understandable to management and the Board
    - if not readily understandable then unlikely to be practically useful

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# Stress and scenario testing

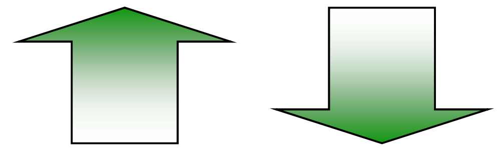
- Stress and scenario testing is very important in the ORSA

- Advantages
  - Focus on the key risks
  - Independence
  - Can reflect realistic and extreme stresses and scenarios
  - Can address key management concerns:
    - e.g. long term contraction in the marketplace or a prolonged low interest rate environment
- Also reverse stress testing
  - ‘How much of a particular stress can I withstand?’

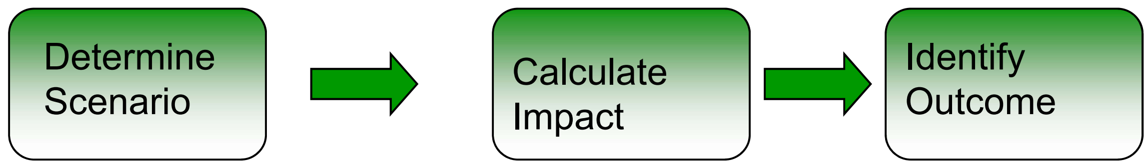
- Helps Companies articulate and communicate their approach to risk management

# Scenarios

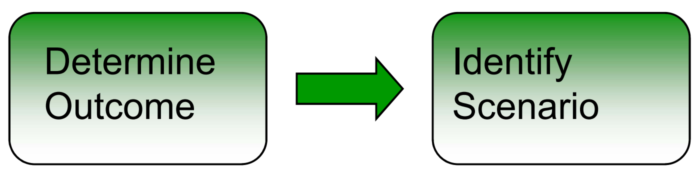
- Business Scenarios
  - Flexing the business plan and assumptions



- Stress Tests
  - What happens if




- Economic Scenarios
  - What economic scenarios would result in stresses
  - Knock-on impacts
- Reverse Stress Tests



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# Projections - Introduction

***Guideline 10 – Forward-looking perspective***

*The undertaking's assessment of the overall solvency needs should be **forward-looking** and at least **cover separately each year of the business planning period**.*

- Quantitative element of the ORSA
- Time horizon: business planning period (likely 3-5 years)
- Content: Economic Balance Sheet, SCR, MCR…
- Sufficient granularity to enable:
  – Assessment of Own Funds
  – Monitoring of Risk Profile vs. Risk Appetite & Tolerance metrics

# Projections – Practical difficulties

- Different levels of complexity depending on method for calculating SCR and Economic Capital:
  - Standard Formula vs. Internal Model
  - Deterministic vs. stochastic

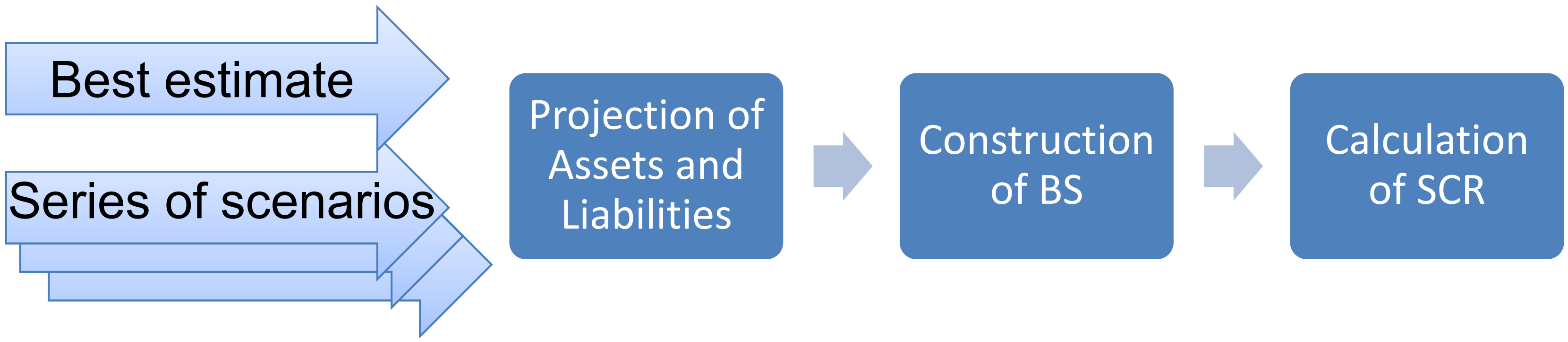
- Likely that estimations will be required

# Projections – Possible Methodologies

| | |
|---|---|
| Roll Forward | • Simple roll-forward of BS components and SCR<br>• Adjustments based on key risk drivers |
| Deterministic projection | • Projections over pre-defined deterministic paths<br>• BE "path" + a series of scenarios |
| Replicating Portfolios | • Replicating portfolio for the Liabilities<br>• Projection based on market indicators |
| Partial Nested Stochastic Projection | • Limited number of stochastic projections<br>• Series of "paths" |
| Nested Stochastic Projection | • Nested stochastic projection over the time horizon<br>• Practical difficulties |

- Appropriate to the nature, scale and complexity of the risks inherent to the business

# Projections –Deterministic projection




- Calibration of scenarios:
  - Company's objectives
  - Likely deviations from BE over the ORSA horizon
  - Company's responses to risks/events
  - Risks not covered by SCR
  - Facilitate business decisions and assessment of risks
  - Include management actions (responses to stressed situations)

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# Continuous Monitoring - Introduction

***Guideline 11- Regulatory capital requirements***

*The undertaking should ensure that the ORSA includes:*

*a) procedures that enable the undertaking to reliably monitor its* ***compliance on a continuous basis with regulatory capital requirements*** *whilst taking into account potential future changes in the risk profile and considering stressed situations;*

*b) processes and procedures to allow the undertaking to* ***monitor and manage the quality and loss absorbing capacity of its own funds*** *over the whole of its business planning period.*

- Risk management (and so the ORSA process) is a continuum

# Continuous Monitoring – How?

Similar processes probably already in place

- Focus on key risk drivers
- Establish regular monitoring
- Triggers for management actions

- Possible methods
  - Approximations based on Key Risk Indicators
  - Estimates based on Sensitivities and Scenarios
  - Internal or Economic Capital Model: Partial or Full model runs
    - Consider triggers for model runs

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# Risk Management

- Qualitative part of the ORSA

| | |
|---|---|
| **Non-quantifiable risks** | **Emerging risks** |
| **Deviation of risk profile from SCR assumptions** | **Deviation from Risk Appetite** |
| **Adequacy of Internal Model/Economic Capital Model** | **Management actions and risk mitigation techniques** |
| **Quality of ORSA sub-processes** | **Adequacy of the risk management system** |

- Development of risk responses: mitigate, transfer, accept

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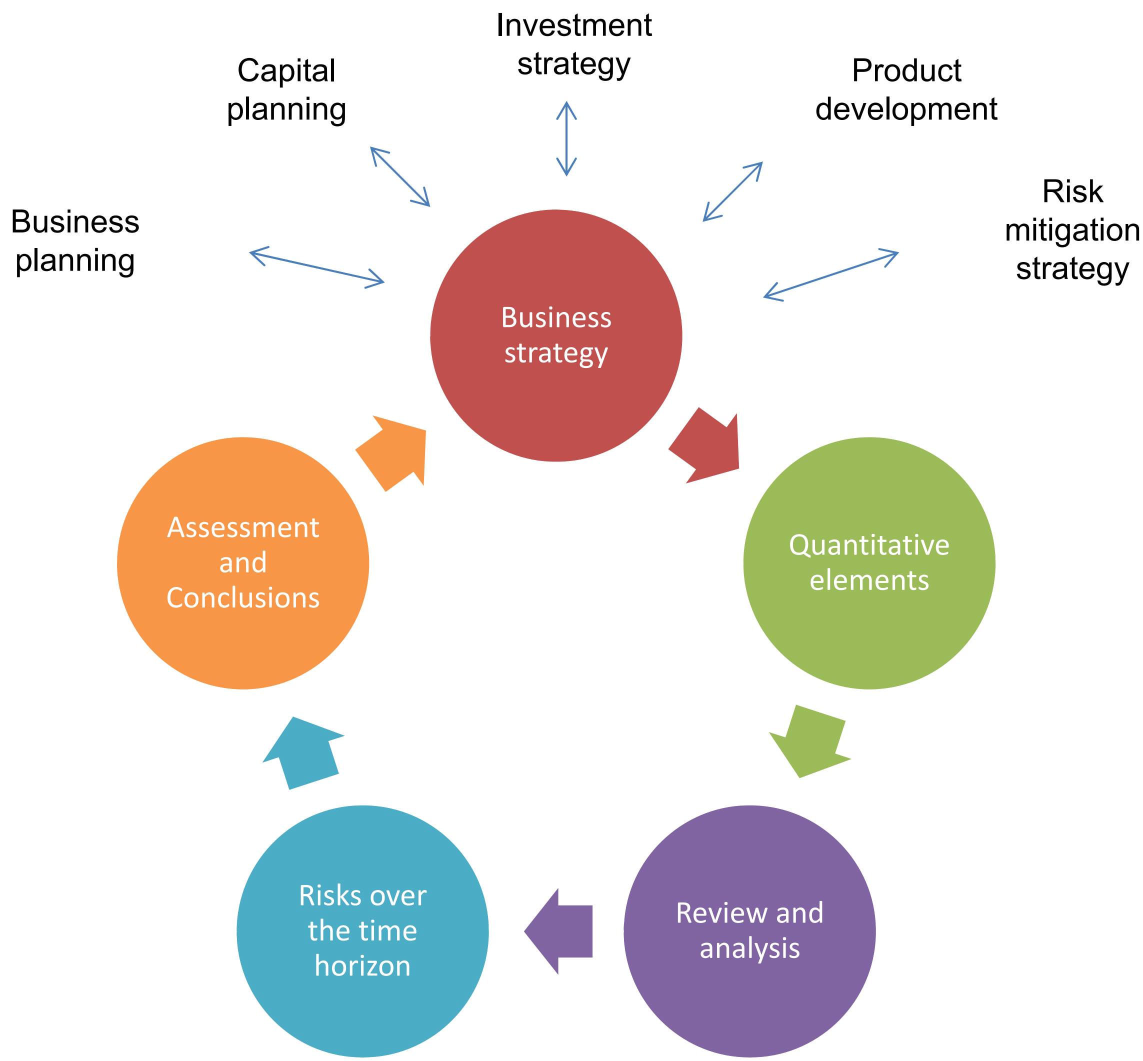
# ORSA Process



# Conclusions

Key aspects to consider for the first ORSA:

- Identify and engage all stakeholders at an early stage – Education is important!
- Bring management along the way throughout the whole process

- Use the *ORSA Policy* as a tool for planning how to approach the ORSA
- Internal Economic Capital might be a new calculation for many companies (although most will already have existing building blocks that can serve as a foundation)

- Connect the ORSA with the Company's strategy
- Ensure the ORSA adds value to the Company

- Use stress tests, reverse stress-tests and scenario analyses
- Iterative process
- Trial runs ("pilots") in advance of 2014 helpful