



The Actuarial Profession

making financial sense of the future

The future risk function and the role of actuaries
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Risk management – leading from the front

5 November 2012

Agenda and objectives

What we will cover

- The role of the risk function
- More than second line of defence – towards strategic leadership
- Organisational integration – removing the barriers
- Examples to illustrate the importance of the risk function taking the lead, and where actuarial skills are in demand

For you

Challenge to thinking on

- the role of the risk function – leading from the front, enabling and challenging the business to be resilient
- the leadership skills required – as an actuary in a modern, well run company, whether or not you work in the risk function



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1. The role of the risk function

Background

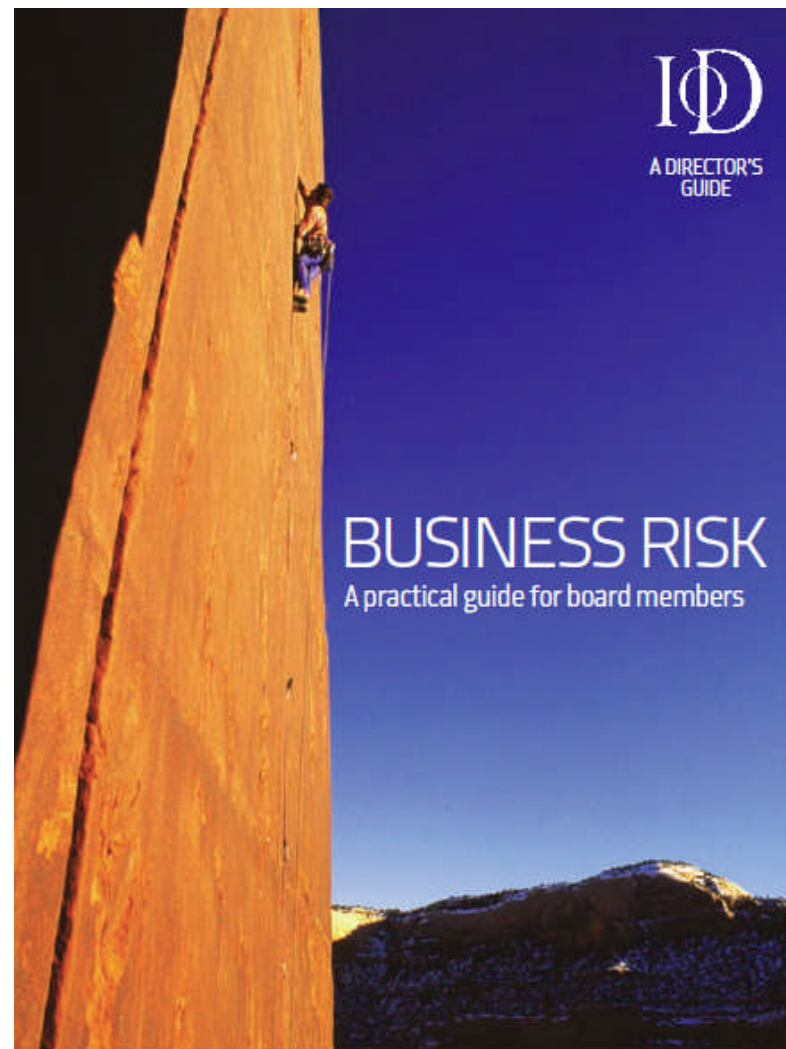
- The role of actuaries in the financial management of insurers is well established, but has been through significant change, driven by regulatory and commercial pressures
- While the ‘actuarial function’ under Solvency II gives prominence to the role of actuaries, the risk management function has an even more prominent focus – and the PRA’s new approach reflects this view
- As a result, insurers have been investing heavily in effective risk, capital and value management frameworks and processes.
- These processes need effective leadership to be successful
- That leadership can, and ought to, come from the risk function
 - An opportunity for actuaries who can demonstrate the right leadership behaviours
 - Structure (e.g. 3 lines of defence) is important, but matters less in practice than behaviours and skills
 - Examples to illustrate

Unprecedented prominence and focus on effective risk management

- Heightened regulatory and public expectations in the light of previous failures
- Increased pace of change, competition and volatility in most sectors
- Increased recognition, by all stakeholders, that risk-based decisions are 'better' decisions
- Inter-dependencies between risks increasing in complexity
- Demands for greater transparency and clarity of disclosure

Result: expectations for effective risk management to avoid or mitigate future disasters (or at least to limit volatility of earnings) are greater than ever...
...with the benefit of smart risk decisions

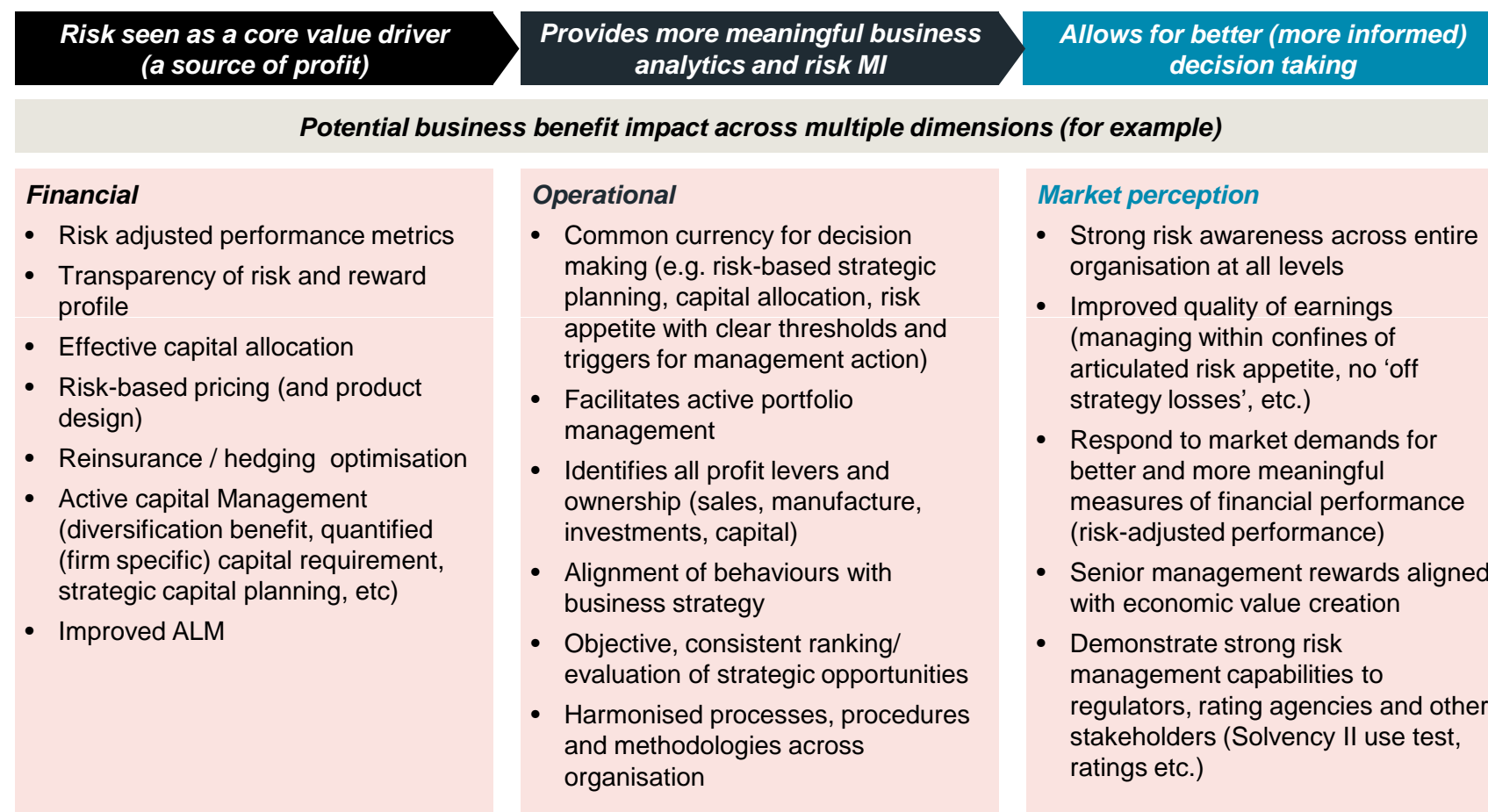
...and clear demand beyond financial services



Institute of Directors,
June 2012

Why?

Taking smart risk decisions



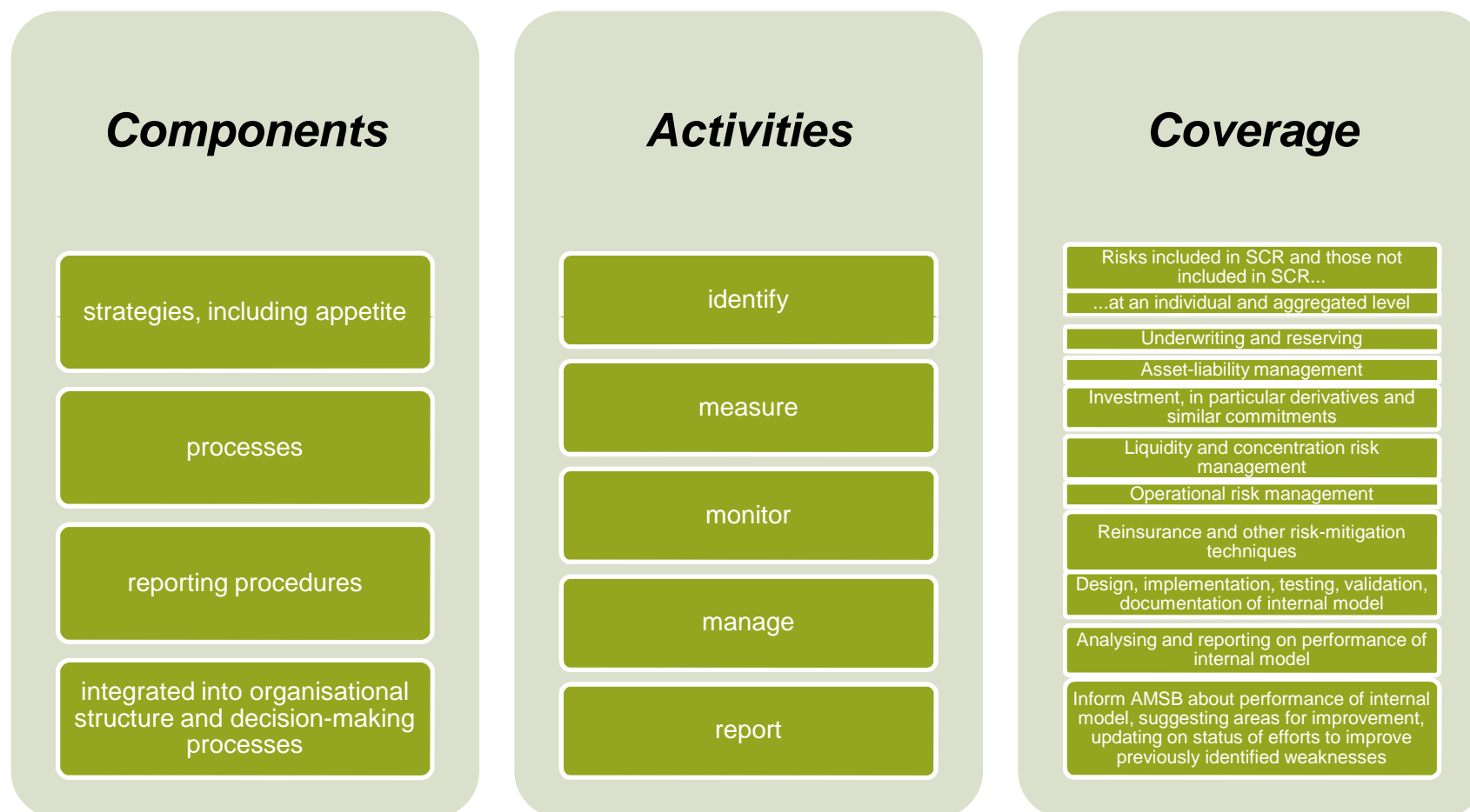
A regulatory consensus on the role of the risk function

- Risk function with clear role to implement the risk management system
- Provide challenge to business in to ensure risk continues to be managed within the limits set by the risk management system
- Ensuring material risk issues are given sufficient attention by management and the board
- Ownership of the development and validation of the internal model

“The board should hear and heed the view of these functions”

The PRA's approach to insurance supervision – Bank of England, Financial Services Authority, October 2012

E.g. Solvency II risk management system – key components, key activities and coverage



Solvency II: Risk management function and actuarial function

Risk management function

Structured in such a way as to facilitate the implementation of the risk management system

Assist AMSB and other functions in effective operation of RMS

Monitoring the RMS

Monitoring risk profile

Detailed reporting on risk exposures

Advising the AMSB on risk management matters

Identifying and assessing emerging risks

Responsible for internal model requirements

Actuarial function

Coordinate calculation of technical provisions

Ensure appropriateness of methodologies, underlying models, assumptions in technical provisions

Assess sufficiency and quality of data in technical provisions

Compare best estimates against experience

Report to AMSB on reliability and adequacy of technical provisions

Oversee calculation of technical provisions where approximations are used

Express opinion on underwriting policy

Express opinion on adequacy of reinsurance arrangements

Contribute to effective implementation of RMS, in particular risk modelling underlying SCR and ORSA

Actuarial function's role in supporting risk management

Solvency II Directive, Article 48

“Actuarial function to...contribute to the effective implementation of the risk-management system...in particular with respect to the risk modelling underlying the calculation of the capital requirements and to the ORSA”

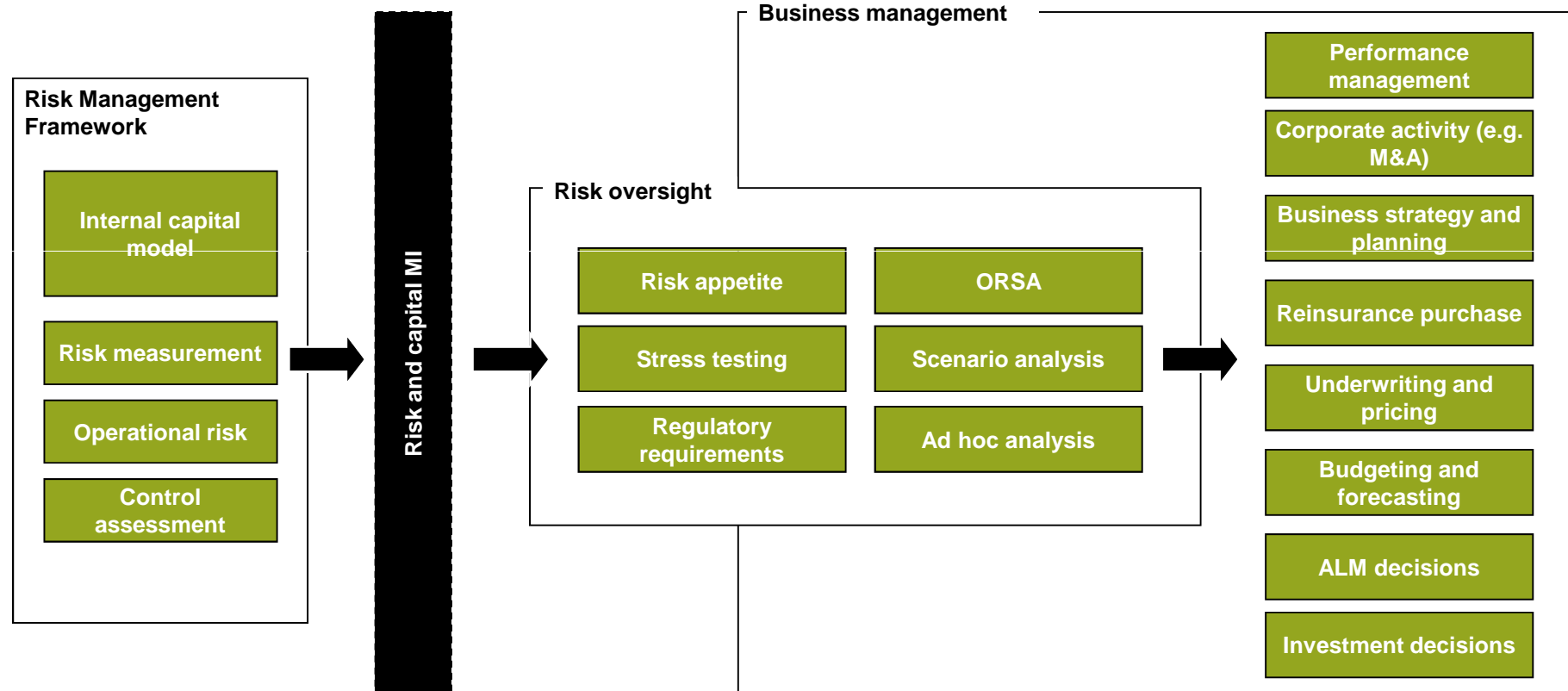
And in the UK, PRA's view (October 2012) *

“The PRA will consider the actuarial function integral to the effective implementation of the firm's risk management framework and therefore expects the actuarial function to be engaged in all aspects of risk management”


* The PRA's approach to insurance supervision – Bank of England, Financial Services Authority, October 2012

Enterprise risk-management is “everyone’s responsibility” (and shouldn’t be delegated to Risk)...

Regulatory ‘comfort zone’



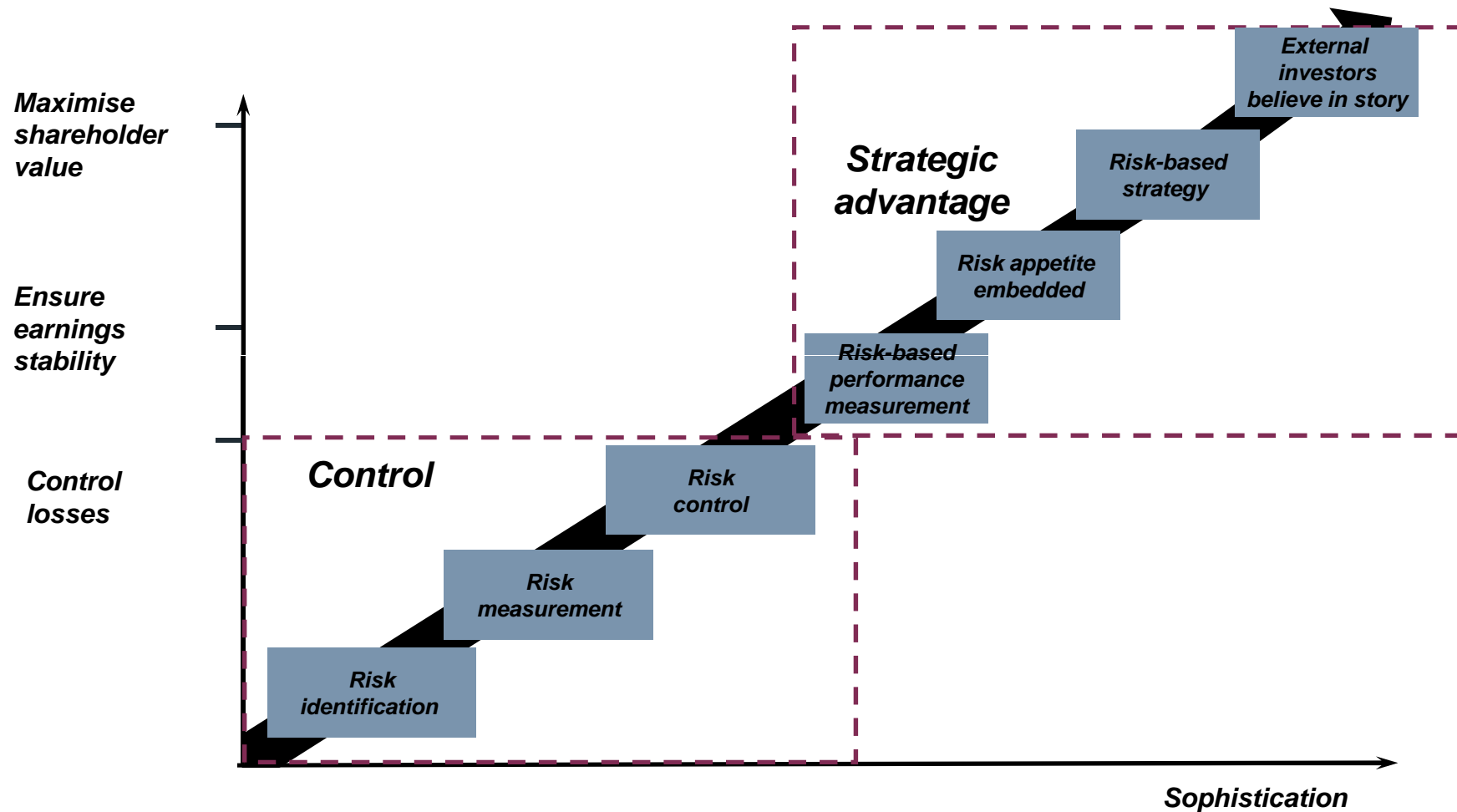
...but in practice, it requires *leadership* from Risk to make it happen



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2. More than a second line of defence – towards strategic leadership

In reality, risk management functions are on a journey towards effective strategic leadership



Enabling and challenging the business to increase resilience

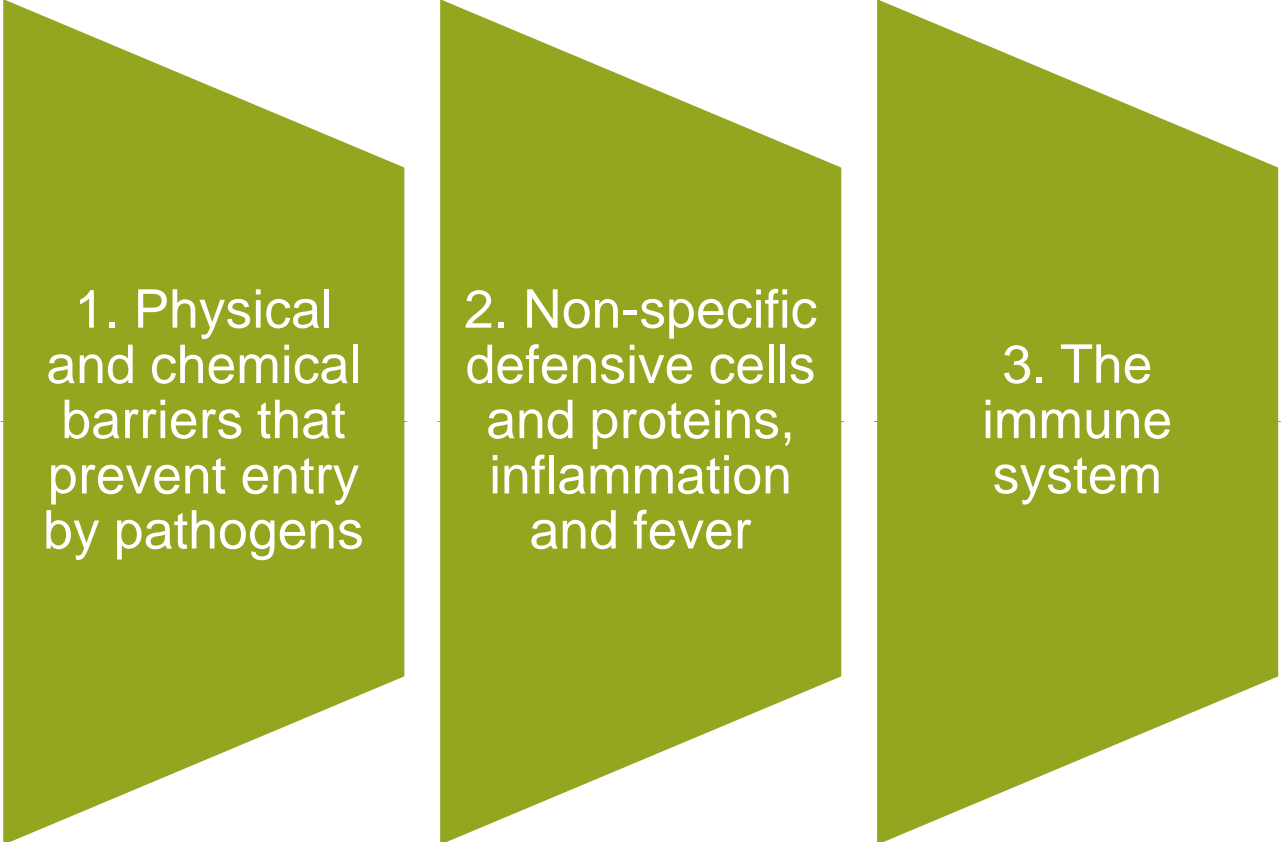
What might good look like?

Structural view

- Three lines of defence
- Actuarial vs Risk

Behavioural view

Three lines of defence



1. Physical
and chemical
barriers that
prevent entry
by pathogens

2. Non-specific
defensive cells
and proteins,
inflammation
and fever

3. The
immune
system

Purpose? (in the financial services world)

- Support the Board in active/managed acceptance of risk
- Create an opportunity for wider perspective
- Creation of gatekeeper roles
- Clarity of roles, in particular separation of risk taking from risk oversight



Separation of risk taking and oversight

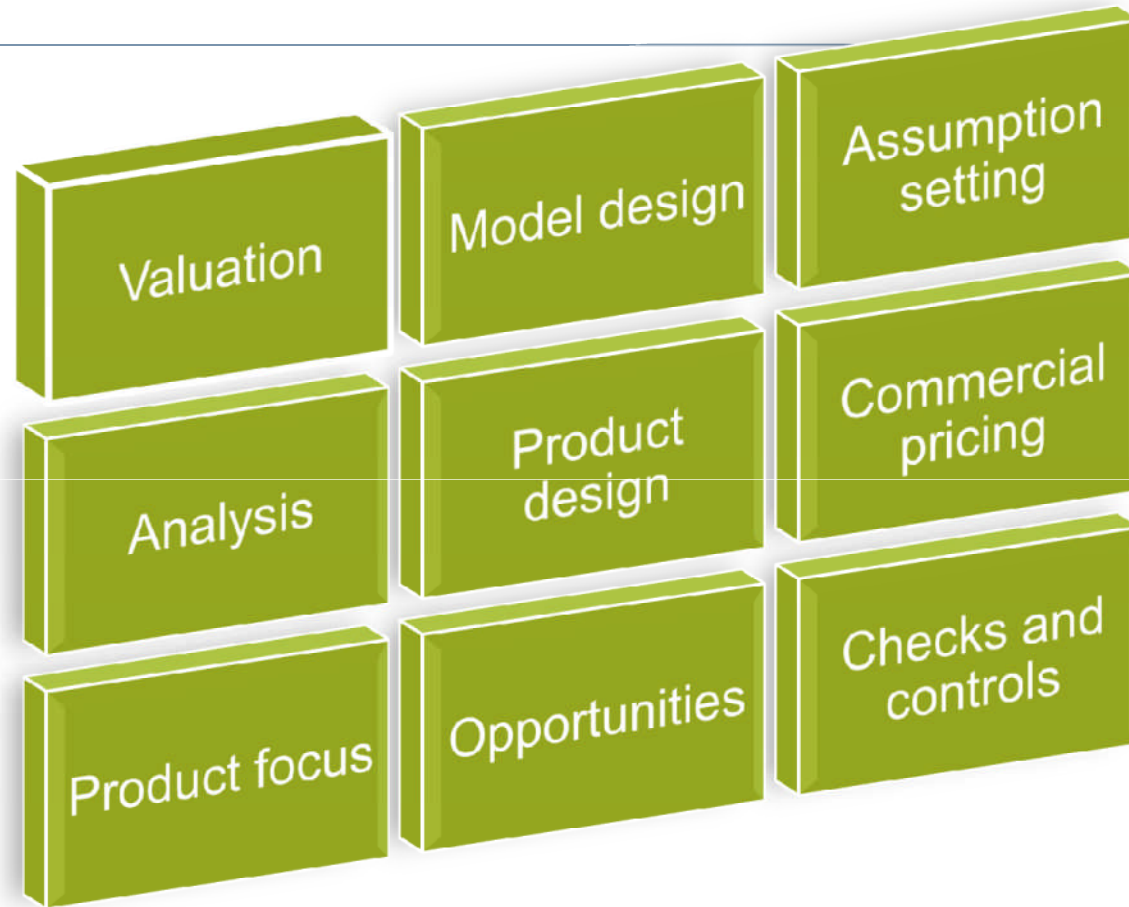
- Risk taking
 - Product design
 - Pricing
 - Investment activity
 - ALM
 - Underwriting
 - Establishing capital strategy
 - Limit setting
 - Developing and reporting KPIs
- Risk oversight
 - Risk policy
 - Risk framework
 - Risk appetite
 - Reporting by risk category
 - Independent review and challenge
 - Validation and testing

Behavioural view



Actuaries have the capability to take any of these roles

The 'Actuarial' actuary



Is it correct?

The 'Risk' actuary



Is it appropriate?

What could go wrong?

Distance and independence creates perspective

‘Actuarial’ actuary

‘Risk’ actuary



Crossing the floor

- Advantages and disadvantages
- Can you keep crossing back?
- It's the seat you sit in ~ is the Risk role a knowledge based role or a skills based role?
- Poacher turned gamekeeper
- If you're in Risk you're in Risk; if you're an actuary in Risk, you are still an Actuary!!

Good risk leadership behaviour – verbs are better than nouns

*Have a voice
at the top level
of the
organisation*

*Carry out
independent
challenge and
oversight*

*Challenge is
visible and
documented*

*Able to
communicate
complexity to
all levels*

*Comfortable
with technical
issues*

*Have a clarity
of purpose
and a strong
vision*

*Restless
curiosity and
high energy
levels*

*Actuarial/Risk
relationship
works
smoothly*

*A strong
sense of
pragmatism*

*Detailed
business
knowledge*

*Leading on
the
identification
& assessment
of emerging
risks*

*Act as
enablers and
trusted
advisors on all
areas of risk
management*

*Contribute to
strategic
decision
making*

*Working
closely with all
users of the
internal model*

*Helping the
business areas
manage their
risks*



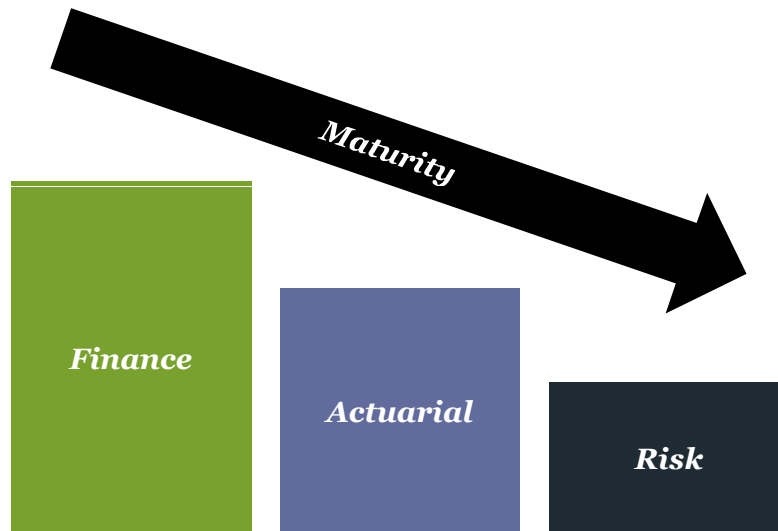
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3. Another dimension – Finance, Actuarial and Risk: integration to improve effectiveness

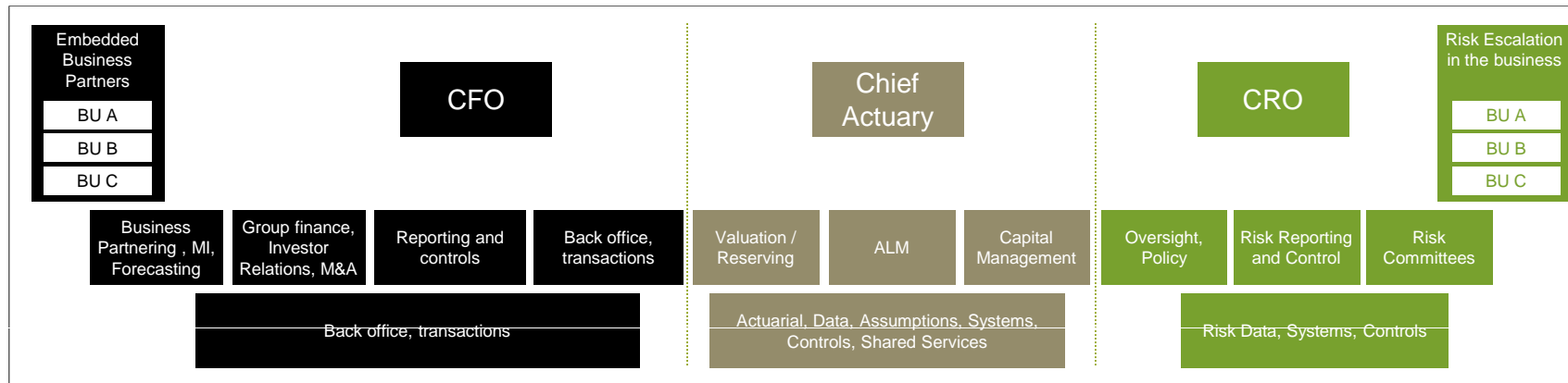
Finance, Actuarial, Risk: the need to integrate

- Finance, actuarial and risk functions are at different stages of maturity and tend to operate in isolation with unclear boundaries



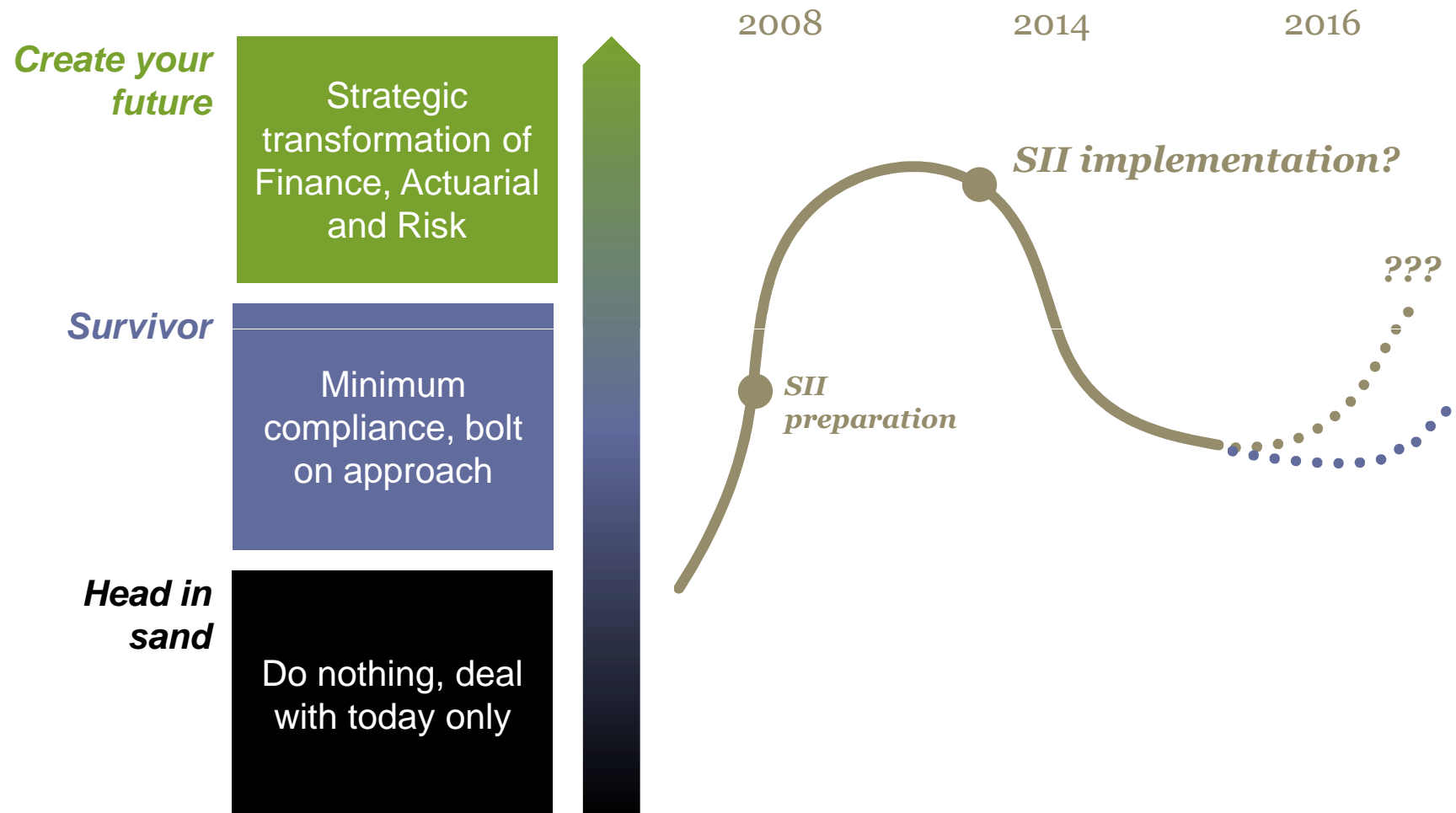
- **Silos** across Finance, Actuarial and Risk
- Different **maturity levels** across teams in terms of relative skills organisation
- **Skills and capabilities** are not shared across the teams
- **High cost resources** undertaking manual, repetitive processes.
- Overall it's a **high cost model**

Key functions today – typical model

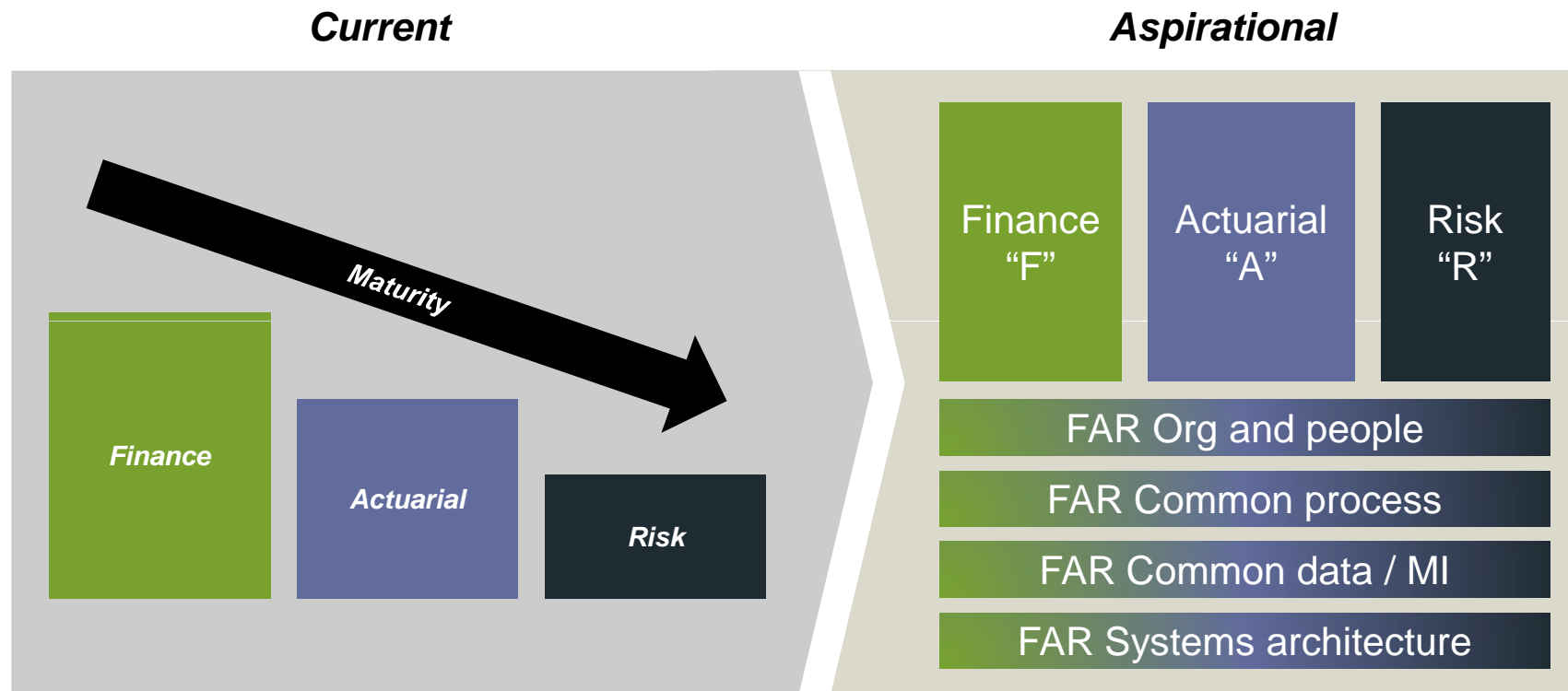


- **Data sourced differently** for similar purposes creating increased reconciliation controls and surprises in reported results.
- Limited **capacity to absorb change** and transform the function alongside keeping BAU running.
- **Multiple MI teams** producing similar metrics in different ways
- Multiple **business facing** teams
- Systems which are separate with limited / zero integration
- **Shared services** are highly developed for core financial activities, especially transactional

What to do about it

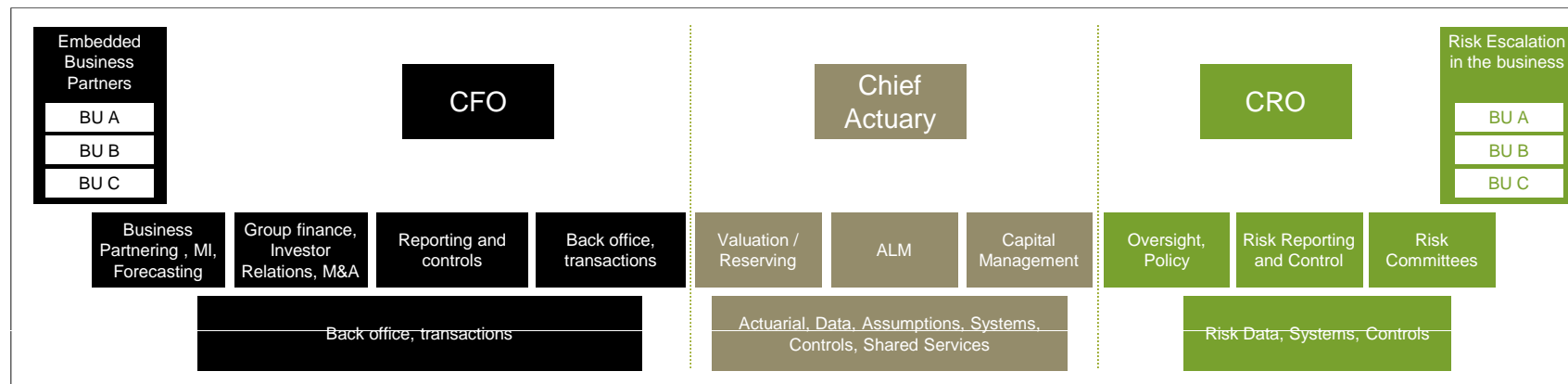


Towards an integrated view

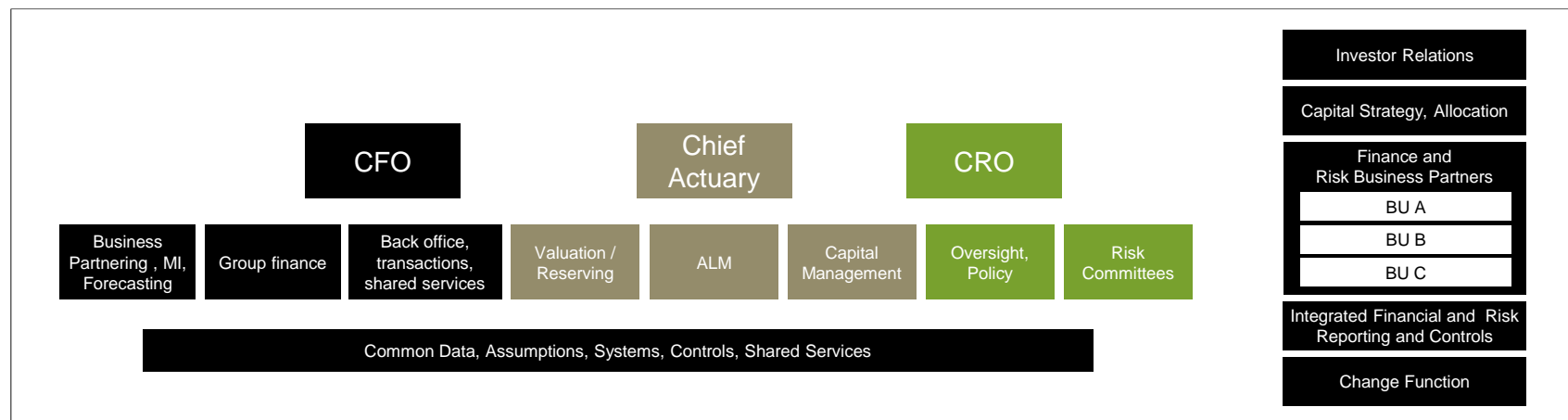


Removing the barriers

Current

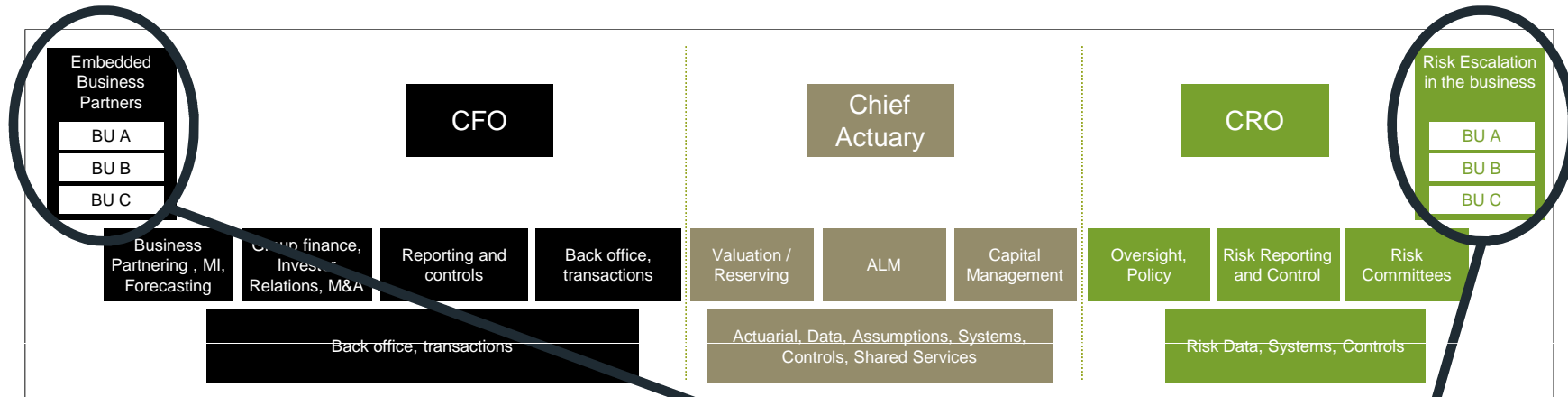


Integrated

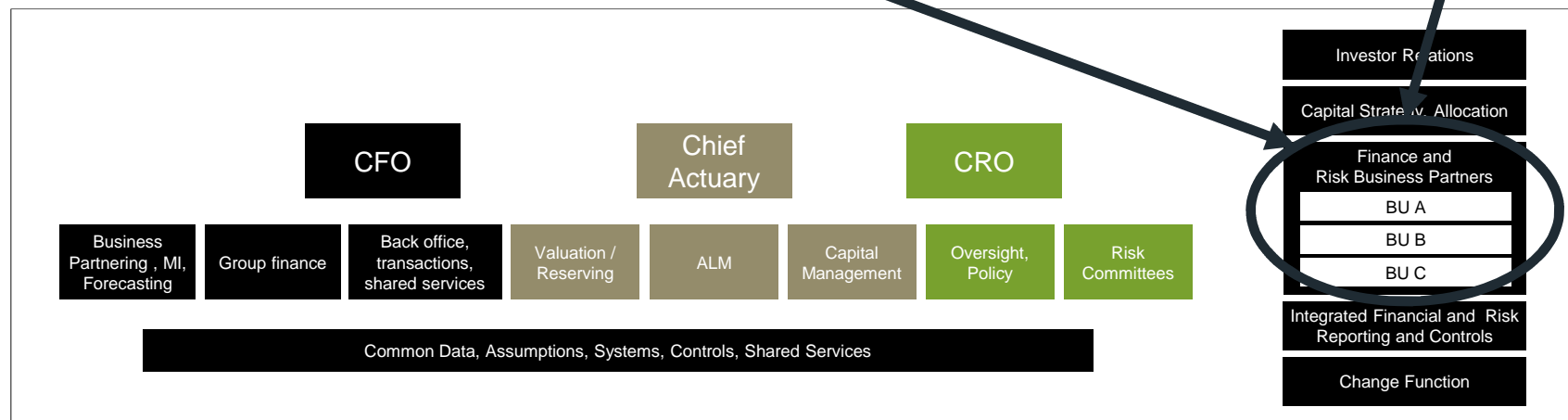


Integrated – business facing

Current

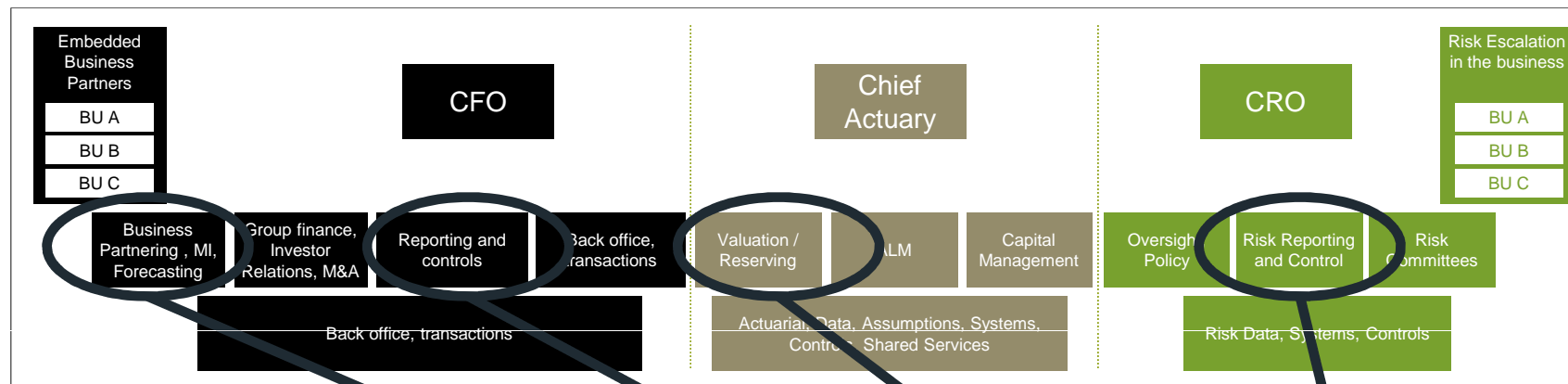


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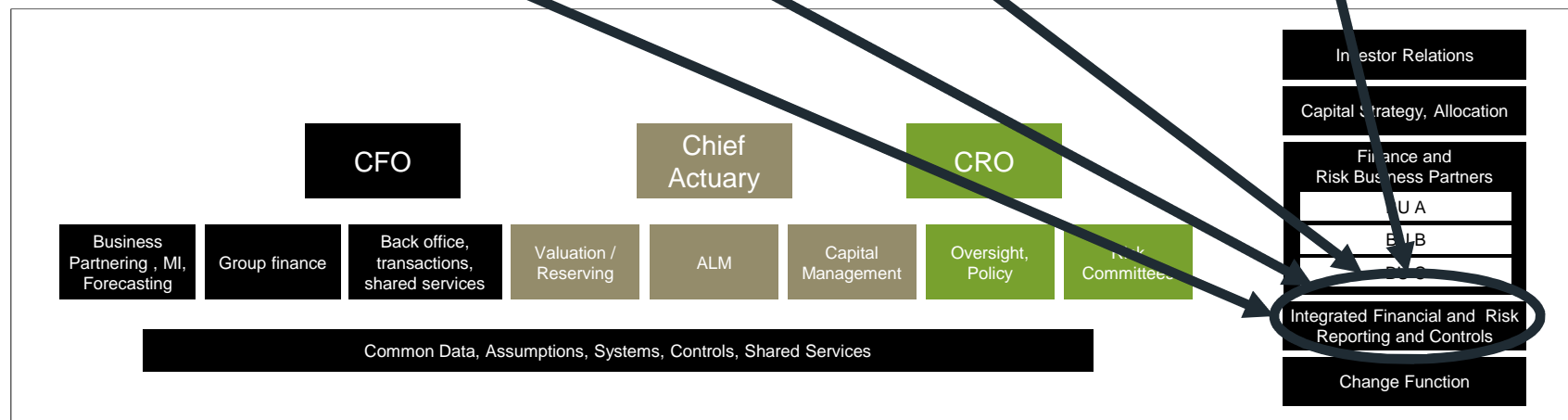


Integrated – reporting

Current

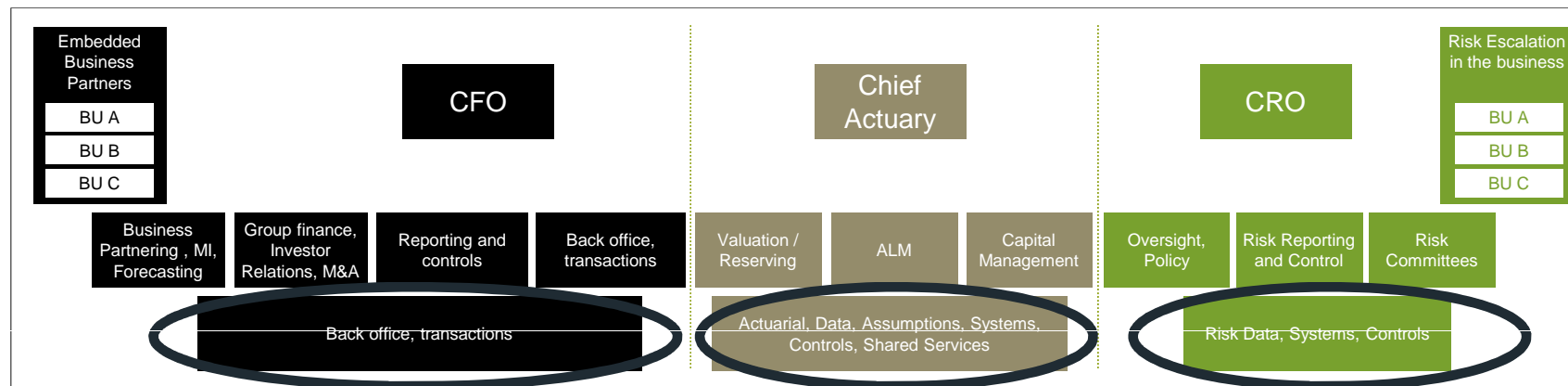


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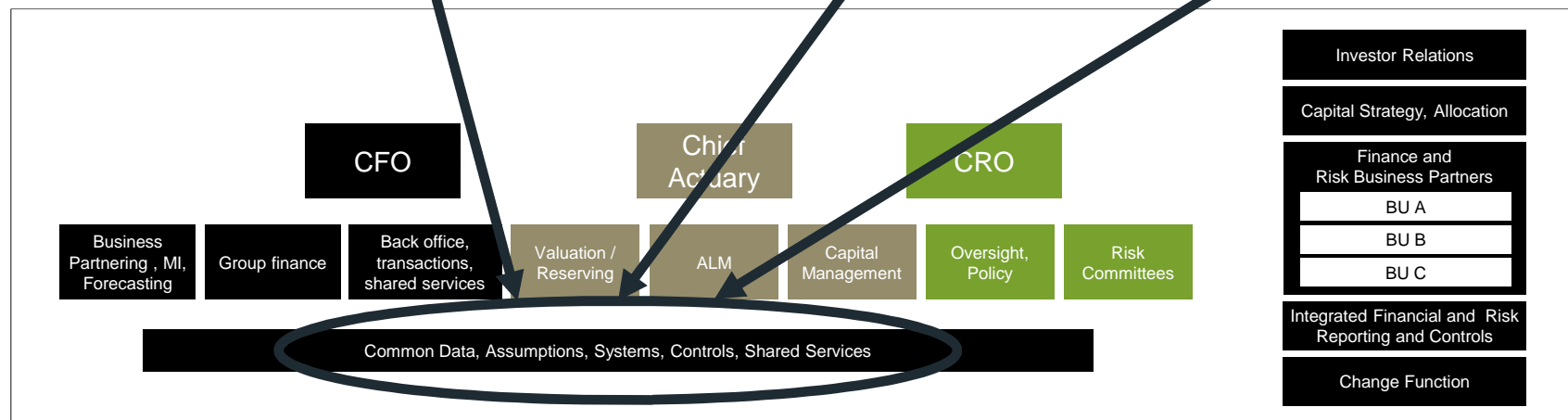


Integrated – enablers

Current



Integrated

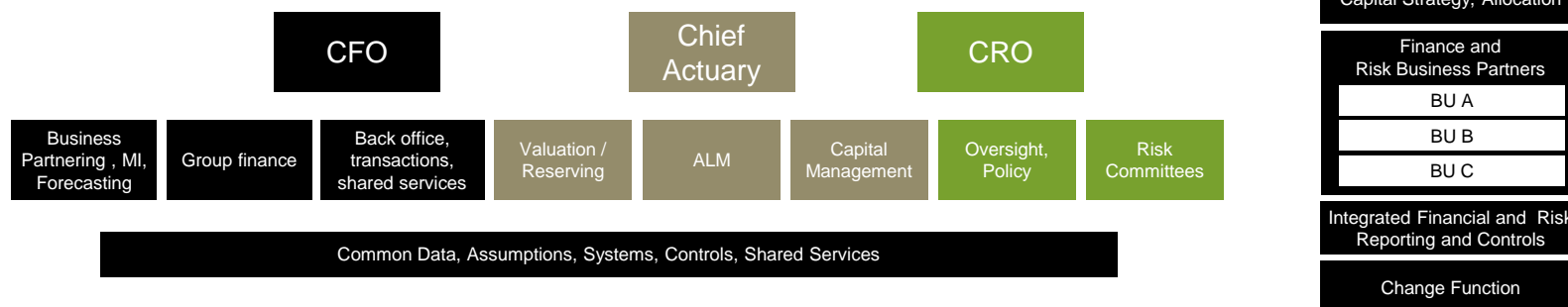


Summary of the integrated model

- **Features**

- Organisation more closely **integrated** across FAR
- **Right skills** allocated to **right processes** rather than organised by qualification
- **Integrated reporting / MI** capability for financial and risk and operational MI
- Risk will have a **greater voice** in external communications and stakeholder management
- **Shared data** or sources of data limits the need to reconcile across functions.
- **Role rotation** and career paths across the integrated function and with the business
- **'Para'** roles created, e.g. 'para actuary' with basic skills to undertake low value actuarial work to a high quality
- **Change** capability built to enable a 'self-heal' approach rather than reliance on consultants / contractors

Integrated





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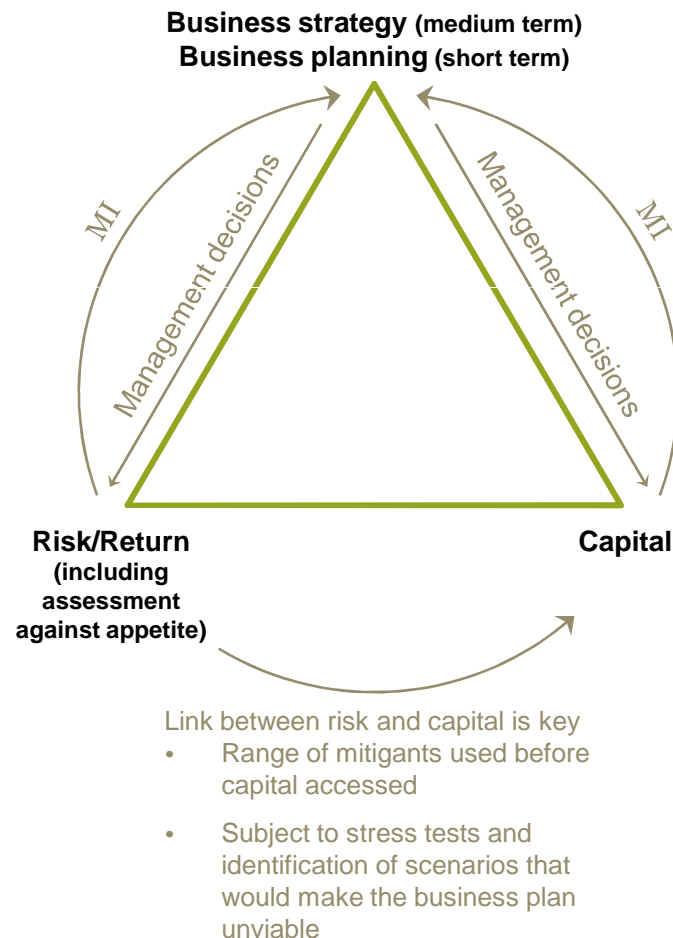
4. The modern risk management toolkit – some examples of Risk taking the lead

Discussion

- Who does what – Finance, Risk, Actuarial, Internal Audit?
- Where should Risk take the lead?
- Skills and behaviours required – how could actuarial skills ensure that Risk's leadership is as strong as possible?
- What is the operating model in your own organisation?

Example 1

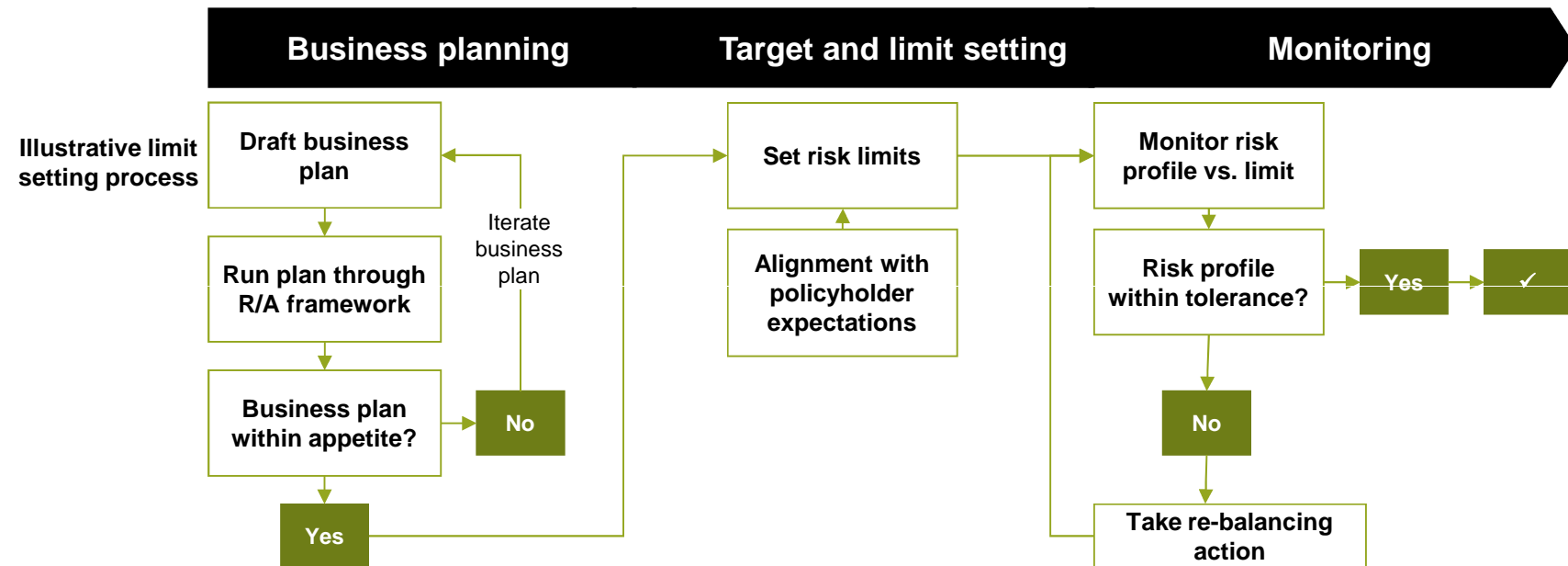
ORSA – the heart of risk & capital management



- Risk and capital management framework and processes for
 - assessing and managing risk, built on a clear articulation of the risk appetite
 - assessment of the adequacy of financial resources to meet liabilities and achieve the business plan
 - the holding of an adequate level of capital taking into account the risks to which the business is exposed
 - the use of stress and scenario testing of the capital position to monitor assumptions underlying its solvency assessments and identify those current or future scenarios that might require management action
- Owned by the risk function
- But requires input from all key functions

Example 2

Risk appetite framework: use in planning and monitoring



Example – setting a credit risk limit

Business plan
We plan to write £100m of new volume in life protection

Check vs. risk appetite
Increase in mortality risk and credit risk but remain within CaR & EaR tolerance

Limit setting

- Running capital model on business plan suggests:
 - Mortality risk = 12% ecap
 - Credit risk = 24% ecap
- At the start of the year we set limits:
 - Mortality < 15%, Credit < 25% of required capital
 - New protection risk volumes < £110 m

Monitoring

- After 6 months, credit markets deteriorate meaning even though only £60m of new protection business written, credit accounts for 23% of ecap
- Take action to reduce new volumes and look to rebalance FI portfolio in to high quality issuers

Example 3

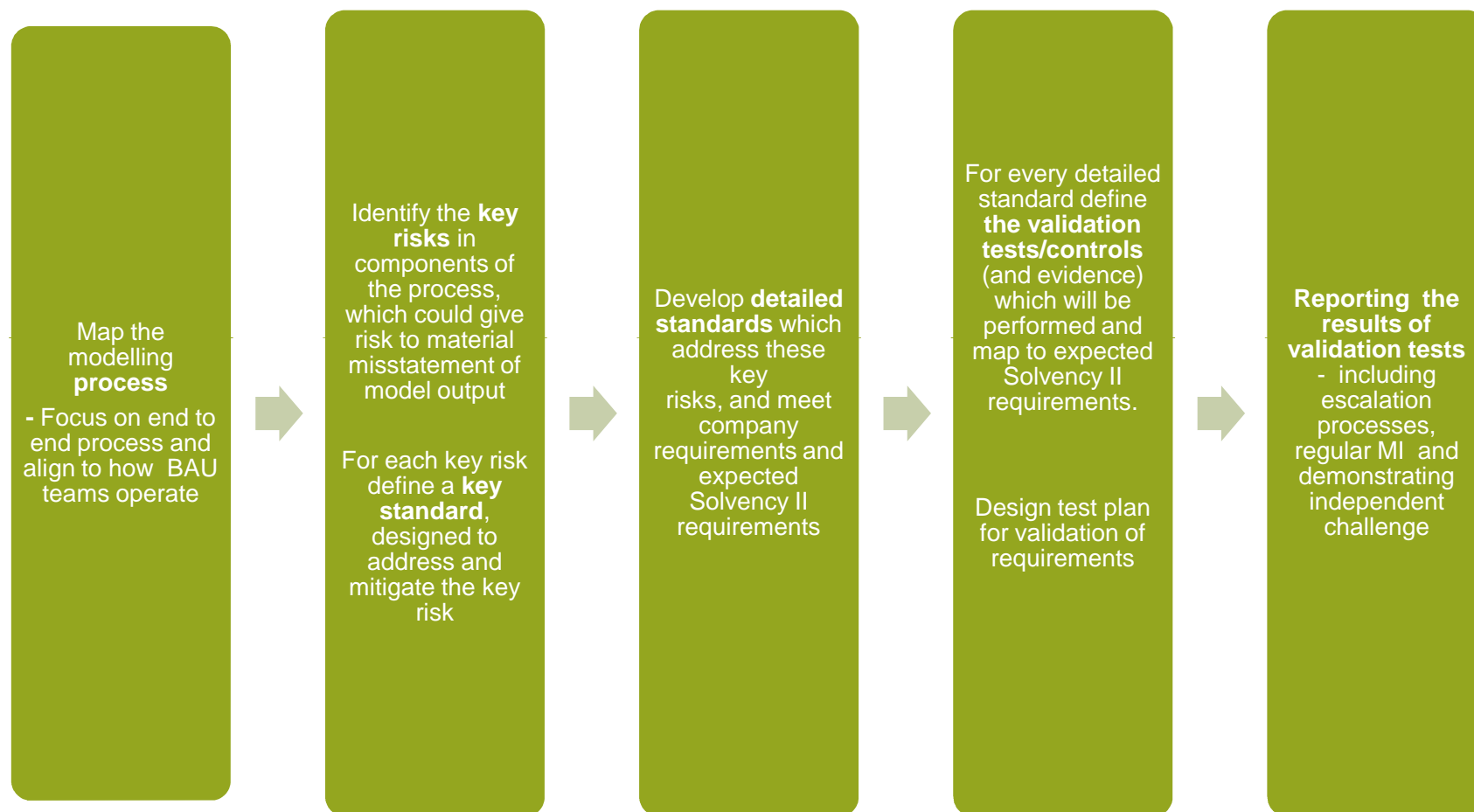
Internal model validation

- Aims
 - minimise model risk (risk of inappropriate capital requirements due to model use) and meet regulatory requirements
 - bring to the Board's attention the areas of material weakness and uncertainty

Typical challenges

- Complexity
- Subjectivity – significant level of judgement to be challenged
- Ensure independence and depth of challenge
- Timescales – limited time to get it right

Model validation: developing an effective and workable approach – led by Risk



In conclusion

- Ensure clarity of roles of risk function and actuarial function
- Verbs better than nouns – ensure nothing falls between the cracks
- The risk function's primary role is to enable effective risk management across the organisation – risk management should not be delegated to the risk function
- About much more than frameworks and checking – requires leadership in
 - Supporting the business in becoming resilient
 - Providing credible challenge
 - Having the willingness and ability to escalate
- Actuaries who embrace these roles can play a key leadership role in the modern, risk-managed organisation

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.

