Reaping the Rewards of Effective Business Continuity Management

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KPMG

Risk Management in 2003

Presentation for ISACA Chapter Meeting

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Agenda

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Investing in BCM

- Why invest in BCM?
- How do I set priorities for expenditure?
- What are my options?

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Linking BCM and Risk Management

- A Risk Manager's view on BCM
- Operational Risk Hedging
- Lowering your Economic Capital

Investing in Business Continuity Management

Agenda

- What has changed
- Why should I invest
- How do I determine priorities
- Recovery Strategies and Options
- Maintaining my investment
- Return on Investment

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Sally Hales

Business Continuity Management

What has changed

- September 11, world-wide terrorism, anti-globalisation
- Increased regulatory pressure
- Corporate Governance
- High dependence on information availability
- Customers expectations
- Employees livelihoods

Why should I invest

Reputation
- Shareholders
- Employees
- Customers
- Regulators
- Financial markets

Market
- Brand value
- Market share
- Position
- Customer loyalty
- Cross-selling
- Agility
- Innovation

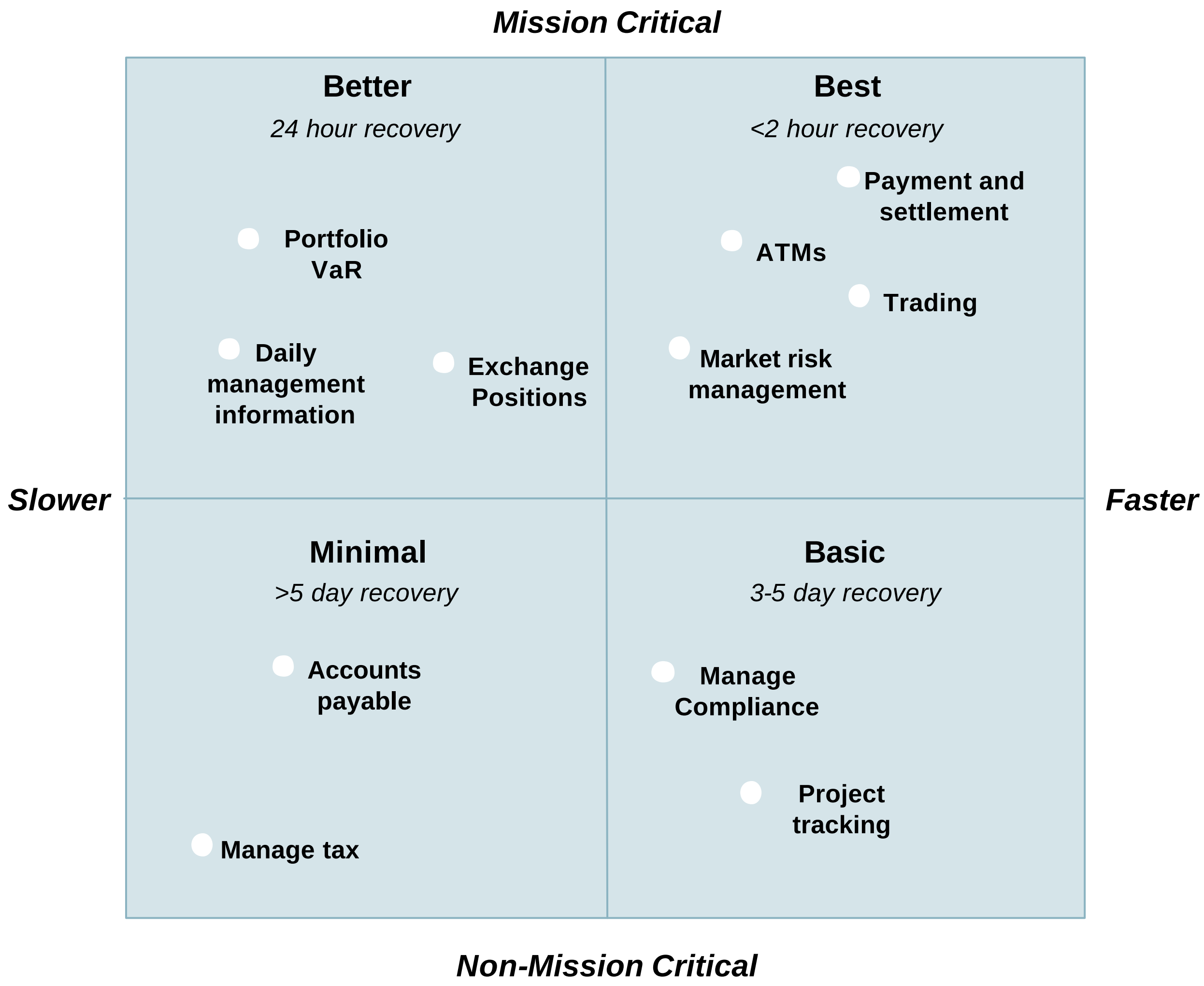
Business Continuity protects reputation and shareholder value

Costs
- Customer churn
- Productivity
- Backlogs
- Recovery costs
- Lost data
- Litigation
- Compensation

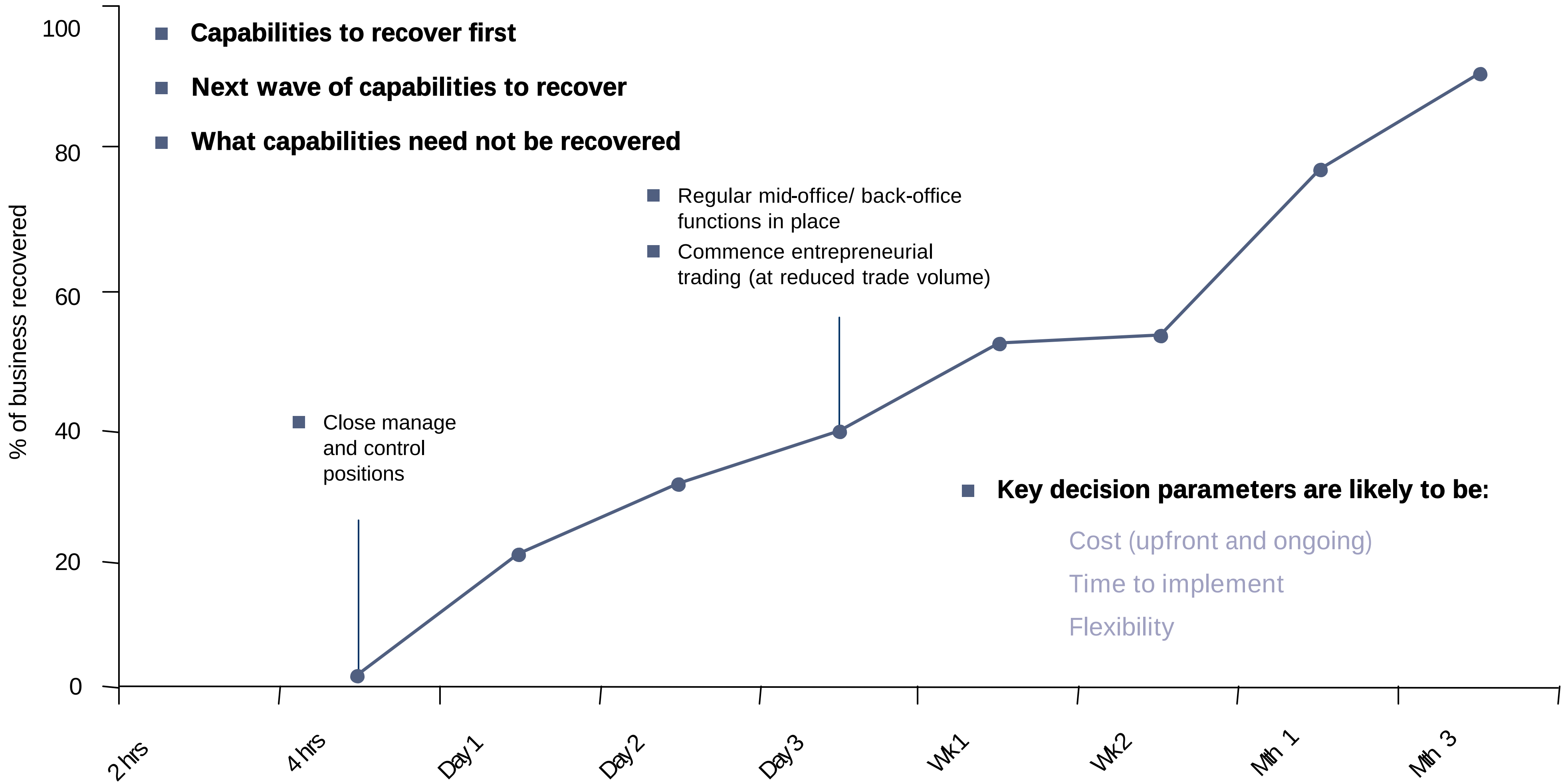
Results
- Revenue growth
- Cash flow
- Share price

How much should I invest

How do I determine my priorities



Choosing the recovery strategy



Resilience or recovery

React: **Is it sufficient to react to a disaster?**

Manage: **Is ensuring the availability of operations sufficient ?**

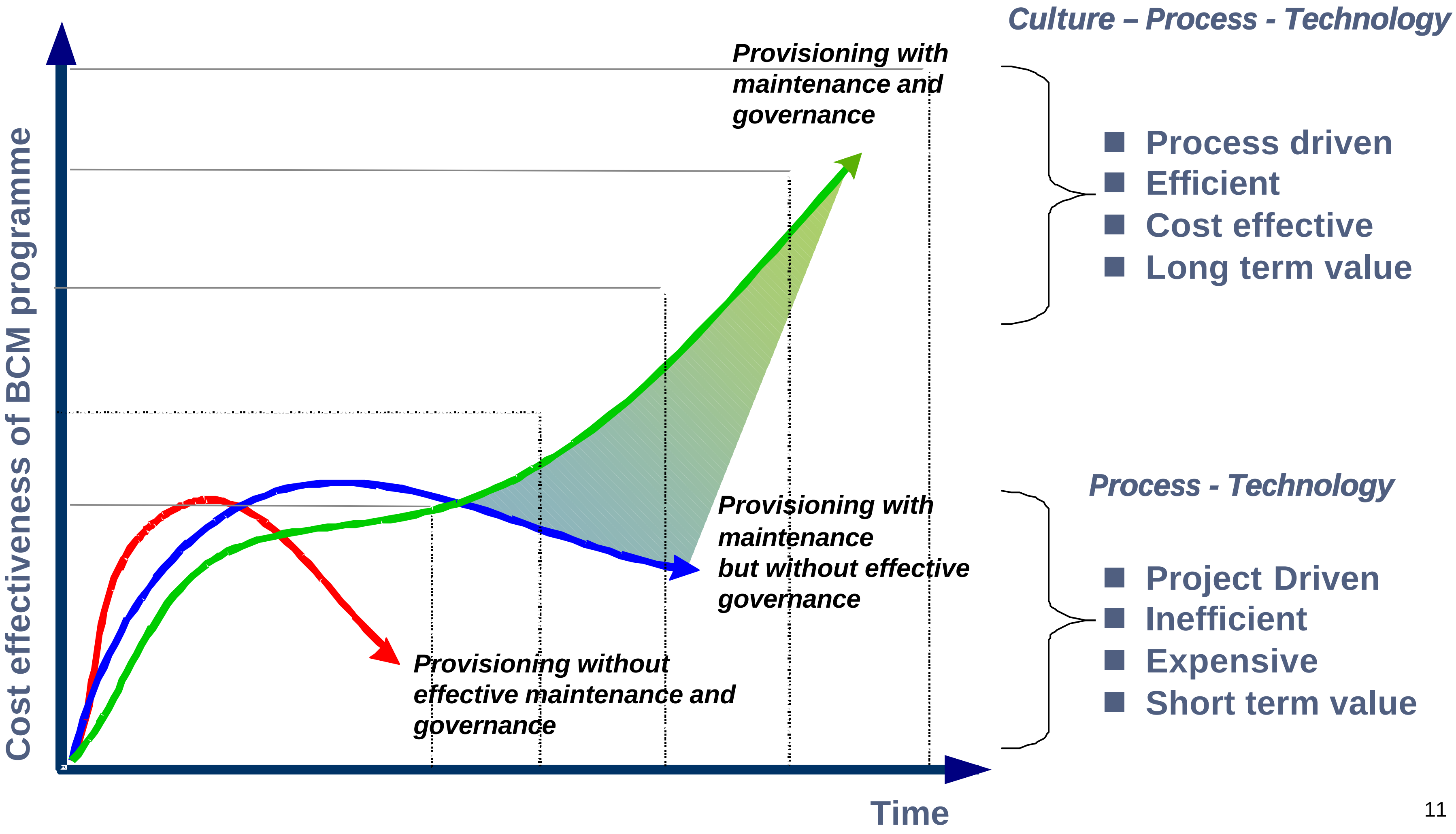
Transform: **Should business continuity capabilities be provided across the extended enterprise?**

	React	**Manage**	**Transform**
Value	Recoverability	Availability	Competitiveness
Risk	Physical assets	Information assets	Competitive position
Impact	Facilities/ processes	Customer satisfaction	Extended enterprise
Focus	Event	Customer	All stakeholders
Downtime tolerance	Days	Hours/ Minutes	Zero downtime

Recovery Options

- **Flexible and scaleable**
- **Shared costs**
- **Syndicated or dedicated**
- **Control**

How do I maintain my investment



How do I maintain my investment – The Testing Element

Testing

Types of Test

- Emergency Response
- Crisis Management
- Command Centre
- Call Tree
- Desktop Walkthroughs
- Simulation Exercise
- Live Test !

Risk Profile

- Low Risk
- Low Risk
- Low Risk
- Low Risk
- Low Risk
- Medium Risk
- High Risk

Reward

- Ensures the organisation has developed viable business continuity arrangements that work.
- Ensures the business continuity arrangements meet the needs of the business.
- Ensures the organisation has identified and trained personnel for their business continuity roles and responsibilities.

How do I maintain my investment – The Cultural Element

- **Practice managing the incident**

  Managing the immediate problems from capability loss

- **Practice recovering the business**

  Recovery/ restoration of all critical activities

  Restoration of all data

- **Embed BCM within Change Management and Operational Risk**

Making BCM a part of everyday normal business operations – managing risk so that I am always there for my customers and stakeholders.

Return on investment

A Business Continuity programme can help drive:

- **Effective risk management**
- **Lower cost of data management**
- **Contain insurance costs**

One thing is for sure, Business Continuity is no longer low on the executive agenda

- **Getting it right has become increasingly important**
- **The challenges are many and varied**
- **The opportunity to lower economic cost of capital**

Linking BCM and Risk Management

Agenda

- The Risk Universe
- Economic Capital
- Operational Risk
- BCM and Operational Risk
- Going through an example
- Summary

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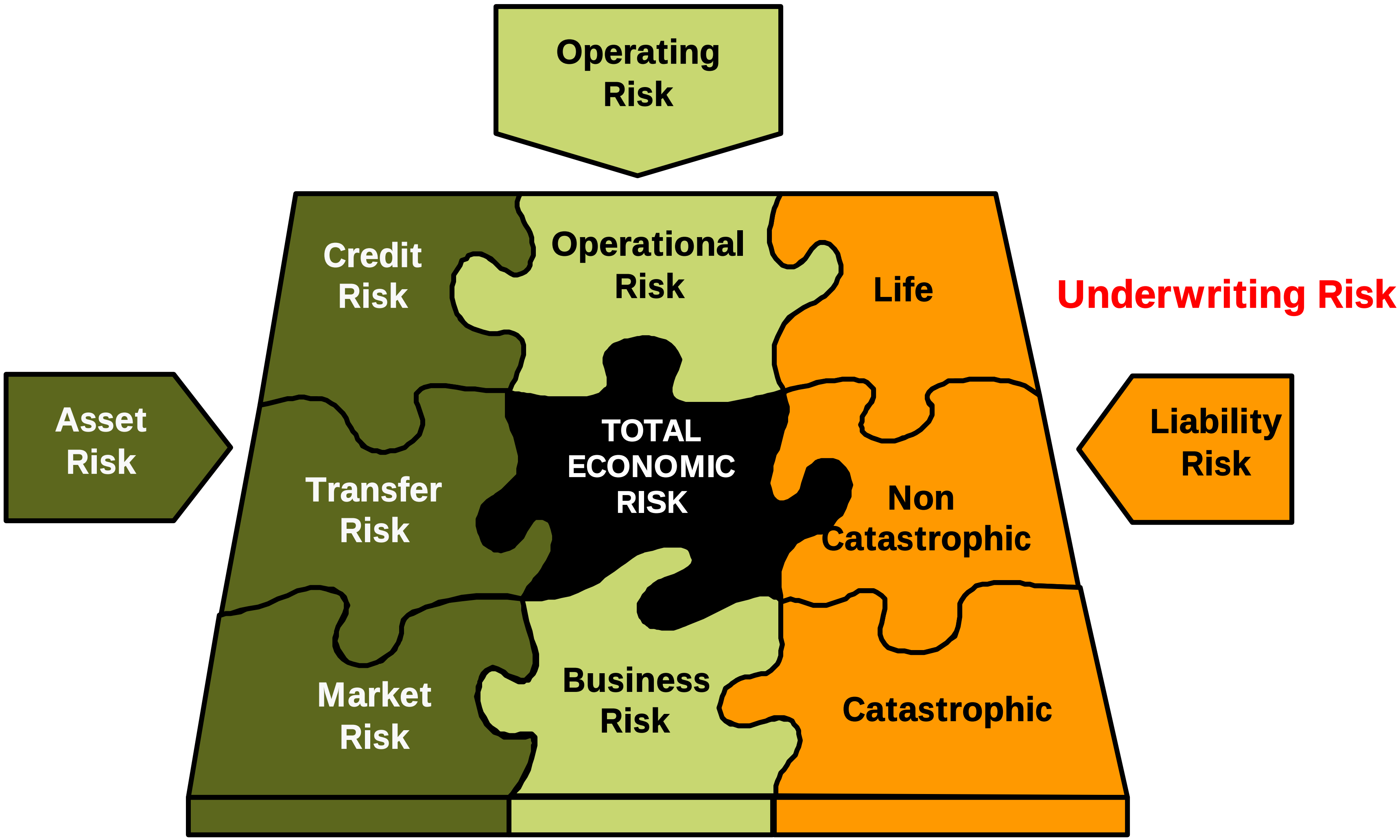
Operational Risk Management

The Risk Universe for a Financial Institution



What is Economic Capital?

- To better understand the levels of risk a financial institution is exposed to, a consistent measuring methodology is needed.
- Economic Capital is defined as the amount of capital that a financial institution requires in order to **cover** eventual **unexpected losses** and still remain solvent over a **certain time horizon**, usually 1 year, and with a **level of certainty**, such as 95%, 99%, etc.
- Economic Capital will translate different risk types into a common language, e.g. money, to facilitate comparison and ranking (**apple-to-apple**).
- The amount of capital that a financial institution consumes should be directly related to the amount of risk that it faces. A truth with some modifications though…
- A useful tool, however only one of many in the managerial toolbox. – **No "silver-bullet" solution.**

Economic Capital – some practical uses

TACTICAL

- **How risky is this customer?**
- **How should we price different loans?**
- **Which relationships are profitable?**
- **Is it taking within its limits?**

Rating	**EDF**
1	.020%
2	.10%
3	.50%
4	2.00%
•	•
•	•
•	•

Transaction Pricing

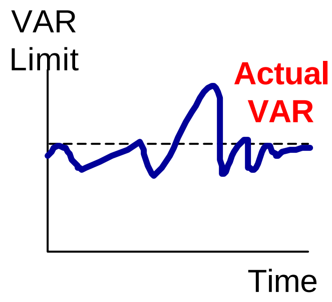
Economic Price =

Cost of Funds
+ Non-int expense
+ EL
+ Cost of Capital

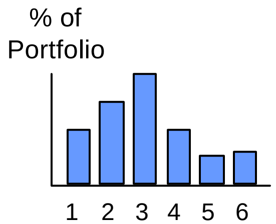
Relationship Profitability

Interest Margin
+ Non-int income
- Non-int expense
+ EL
÷ Economic Capital

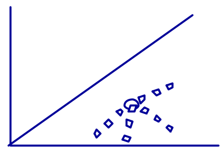
= RAROC



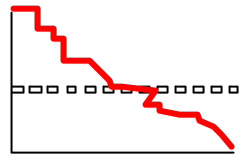
Portfolio Risk Rating Profile



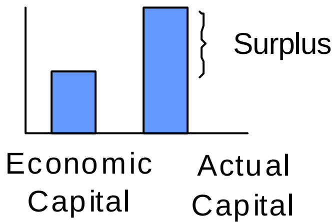
Portfolio Risk/Return



Bus. Unit Profitability



Capital Adequacy



STRATEGIC

- **What is the risk profile of my customers?**
- **Portfolio segments have attractive risk/return?**
- **Which business activities should be expanded?**
- **Do we have enough capital to support our risk?**

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What is Operational Risk?

- In the early days Operational Risk was given a negative definition, however that didn't support the establishment of Operational Risk as a separate risk type, and has now been replaced by…

  …an industry accepted definition of Operational Risk (as is adopted by Basel):

  – *"the risk of loss resulting from inadequate or failed internal* ***processes****,* ***people*** *and* ***systems*** *or from* ***external events****"*

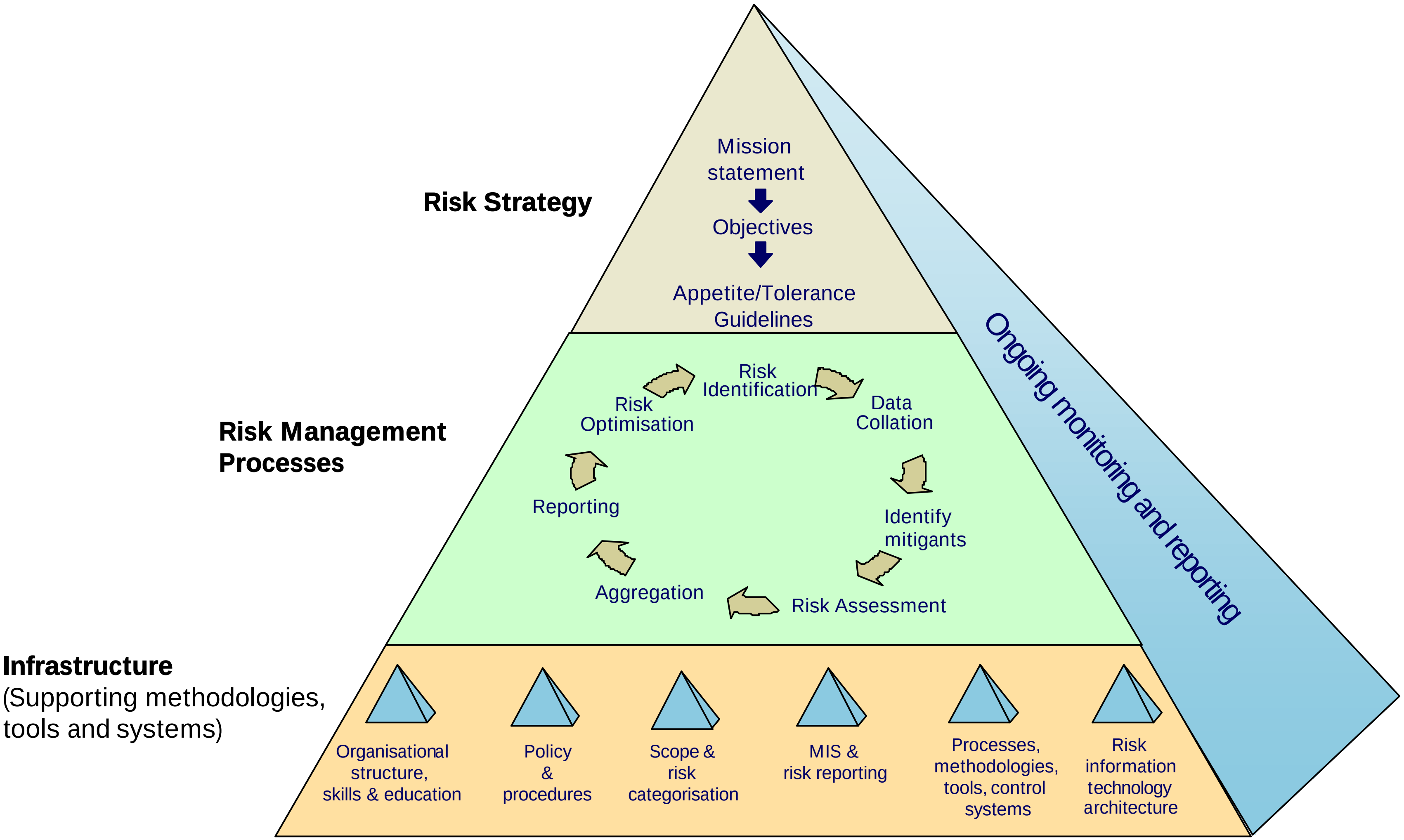
- To facilitate the understanding and management of Operational Risk, categorisation is often used. There are 3 main paths:
  – By **CAUSE**, i.e. what was the root cause behind the loss?
  – By **EVENT**, i.e. impact based categorization - basis of data collation for operational risk
  – By **EFFECT**, i.e. how the loss affects the P/L and maybe also other type of impacts; reputational and regulatory.

- As Operational Risk is such an heterogeneous risk type, the categorisation is extremely important, I will come back to this in a few slides…

Why has Operational Risk become so important now?

- Operational Risk is nothing new, it has always been around, manifested as frauds, natural disasters, process and human errors, etc, and is now widely accepted to be the cause for many losses in financial institutions.
- Basel 2 (and PSB/Solvency 2 for Insurers) is the **KEY** reason
- In addition to the regulatory driver there have also been a lot of recognition of the business benefits with having an Operational Risk Framework…
  - **"What gets measured get managed"** – Improved and consistent MI.
  - To reduce the risk from having a real **show-stopping Operational Risk loss**.
  - **Better understanding** of the Operational Risk exposures.
  - **Economic Capital**.
  - **Cost control** and reduction of earnings volatility.
  - **Rating Agencies & Equity/Bond Analysts** have started to show an increased interest in how Operational Risk is managed at financial institutions.

The Operational Risk Management Framework



Operational Risk Categorization — Events

The Event hierarchy (as proposed by Basel) is a means of categorizing Operational Risk losses in terms of the following Event types:

- **Internal Fraud –** Losses due to acts of a type intended to defraud, misappropriate property or circumvent regulations, the law or company policy, excluding diversity/discrimination events, which involves at least one internal party.
- **External Fraud –** Losses due to acts of a type intended to defraud, misappropriate property or circumvent the law, by a third party.
- **Employment Practices and Workplace Safety –** Losses arising from acts inconsistent with employment, health or safety laws or agreements, from payment of personal injury claims, or from diversity/discrimination events.
- **Clients, Products & Business Practices –** Losses arising from an unintentional or negligent failure to meet a professional obligation to specific clients (incl fiduciary and suitability requirements), or from the nature or design of a product.
- **Damage to Physical Assets –** Losses arising from loss or damage to physical assets from natural disaster or other events.
- **Business Disruption and System Failures -** Losses arising from disruption of business or system failures.
- **Execution, Delivery & Process Management –** Losses from failed transactions processing or process management, from relations with trade counterparties and vendors.

Operational Risk Hedging

- For credit and market risk, hedging is a quite straightforward process, the existence of standardised and liquid derivatives markets (for most products) has made it possible to (more or less) exactly tailor one's risk exposures.

- However, for Operational Risk things aren't as straightforward, we have basically 4 different categories of hedging tools or mitigants to play with:
  - **Controls** – checks and balances
  - **Insurance** – ART
  - **Awareness** – Education & Training
  - **Business Continuity Management**

- Let's take a closer look at BCM…

BCM and Operational Risk

- After estimating Economic Capital at a Gross level for Operational Risk loss types such as *“**damage to physical assets**”* and *“**business disruption and system failures**”*, one need to assess any potential deductible mitigants:
  - Can this risk be reduced and if so how?
  - How much will the risk-reduction activity cost?
  - Will it be cost effective? I.e the financial benefit of having it in place versus the cost of implementing it.
- If proper BCM arrangements are in place, the economic capital charge set aside for these types of losses will be reduced given a realistic and risk sensitive calculation methodology.
- Of course, this should also be recognised in the cost/benefit analysis when deciding about investing in BCM components.
- With a better understanding of its risk exposures and their potential financial impact (gross and net) a financial institution is better prepared to decide what to do about its risk:
  - Accept the risks
  - Reduce them to an acceptable level or
  - Sometimes even decide to increase them
- …let us go through an example

Let us go through an example…

Loss Event Categories	Frequency	Severity - Gross	Deductibles - Insurance	Deductibles - BCM	Severity - Net
Damage to Physical Assets Losses arising from loss or damage to physical assets or other events such as: -Terrorist bombing -Fire -Sabotage by employees -Natural disasters -Aeroplane crashing in the building -Utility failure	1/20 years	**<u>Direct Loss</u>** £ 200M	£ 100M	£ 40M, as having BCM in place will reduce consequential losses	£ 100M
		<u>Loss of Income</u> £ 150M		£ 120M	£ 30M
Business Disruption and Systems Failure Inability to conduct and manage core activities due to a catastrophic failure of: -IT infrastructure -Networks -Telecom systems -Critical IT applications -Hacker intrusion or computer viruses	1/10 years	**<u>Direct Loss</u>** £ 50M	£ 30M	£ 15M, as having BCM in place will reduce consequential losses	£ 20M
		<u>Loss of Income</u> £ 90M		£ 80M	£ 10M
Clients, Products and Business Practices Losses arising from an unintentional or negligent failure to meet a professional obligation to specific clients (including fiduciary and suitability requirements), or from the nature or design of a product.	As Clients, Products and Business Practices is partly a **consequential loss** from the above Loss Event Categories, the effect of BCM will reduce the severity	**<u>Direct Loss</u>** £ 400M	£ 100M	(£ 40M + £ 15M) £ 55M	£ 245M

Let us go through an example…some comments

- This example shows how BCM components and insurance can be offset against an economic capital charge.
  - The deductible numbers and capital savings should be a **integrated part of the cost/benefit analysis of a BCM investment.**
  - This information is useful for Senior Management showing how the economic capital assessment reflects the risks of the various business activities and how **investing in BCM will lower overall economic capital**.
- In this example, economic capital has been assessed for some of the loss event categories for Operational Risks.
  - These numbers are then aggregated up to a single capital number for operational risk and also aggregated with the other risk types and allocated out to the different business units.
  - Loss of future income, which could be seen as either an indirect loss or as part of business risk have also been represented to highlight the fact that BCM components need to be considered for **other risk types, including credit risk and market risk, as well.**
- Investments in BCM could also alter not only the severity assessment but also the **frequency of losses** occurring.
  - For instance, improved security measures could reduce the risk of a terrorist or hacker attack. Lowering the probability of a loss will, of course, also reduce the economic capital set aside for the specific loss event category.
- Assessing the severity and frequency of losses for Operational Risk can be done by modelling a combination of **internal and external loss data**, **scenario analysis** and forward-looking components such as **Key Risk Indicators** and **control assessments**.
- The purpose with this example is to highlight the effect BCM will have as a risk mitigant and how it should be treated in estimating the risks and corresponding capital a financial institution might be exposed to. This is a simplified example of how these calculations would be done and would in real life **include a number of additional modelling parameters and assumptions.**

Summary

- I hope this presentation has showed you that BCM and Risk Management should be inextricably linked….
- …however most financial institutions still haven't recognised the ultimate benefits of BCM as part of its mitigation strategy within its Risk Management Framework.
- BCM will serve as **key mitigant** for Operational Risk exposures.
- Economic Capital could be the *"common language"* that marries BCM and Risk Management.
- A **risk sensitive** Economic Capital methodology will – *ceteris paribus* - reward investments in BCM components with a **lower capital charge.**
- Still **no guidance from Basel** on capital relief for investing in BCM components – however, insurance will to some extent be deductible against regulatory capital under AMA.