

7 listopada, Warszawa

Hotel InterContinental, ul. Emilii Plater 49

The Challenges of Risk Management

Grant Griffiths, Risk Management Leader Central & Eastern Europe, IBM.



The Challenges of Risk Management:

***Risk Management's role in improving
business performance***

What is Risk?

Risk means many different things

But is not

Compliance

Data

Reports

Analytics calculations and models

And it's not even Governance

Although all of the above are very important components and foundations to drive Risk Management in any organisation

What is Risk?

Risk means many different things

Loss

Potential downside

Financial (negative) event or market disruption

Potential for loss – or gain – as a result of pursuing business objectives, strategy, operations

What you're prepared to lose in order to successfully pursue and achieve your objectives (gain reward)

The impact of unexpected events on your business's financial health (or performance)

Risk categories identified by businesses

The different types of risks organisations have identified fall into five general categories:

- **Business risks**, or those associated with an organisation's particular market or industry – including Reputational Risk;
- **Market risks**, or those associated with changes in market conditions, such as fluctuations in prices, interest rates, and exchange rates;
- **Credit risks**, or those associated with the potential for not receiving payments owed by debtors;
- **Operational risks**, or those associated with internal process failures, human error and system failures including mechanical problems;
- **Legal risks**, or those associated with the possibility of other parties not meeting their contractual obligations.

In addition, ***environmental risks constitute a significant and growing area of risk management***, since reports indicate the number and intensity of natural disasters are increasing.

How is Risk and Risk Management viewed?

What perception do people have of Risk Management?

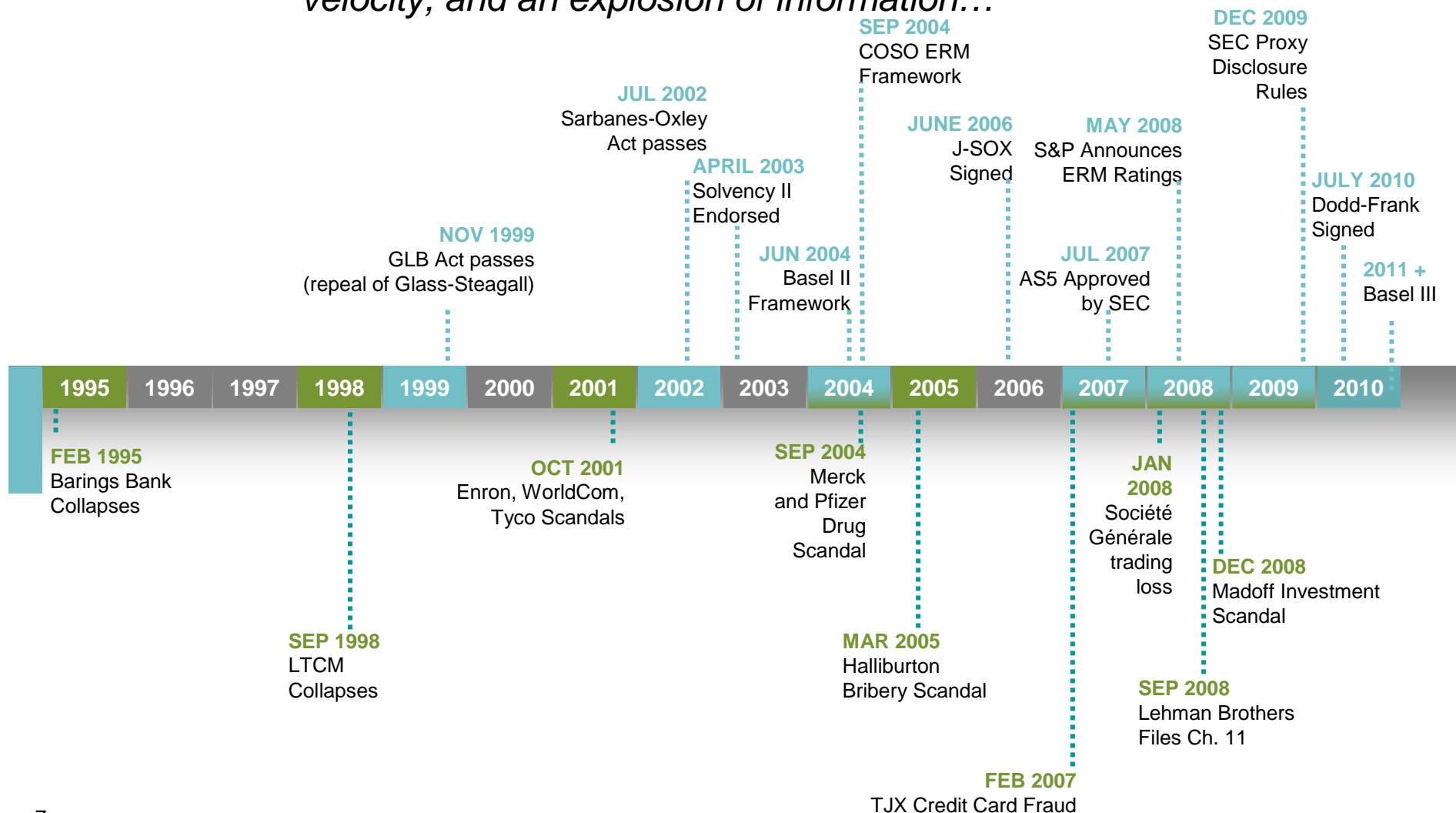
Is it necessarily a negative thing?

Why is it at the top of most organisations' agendas?

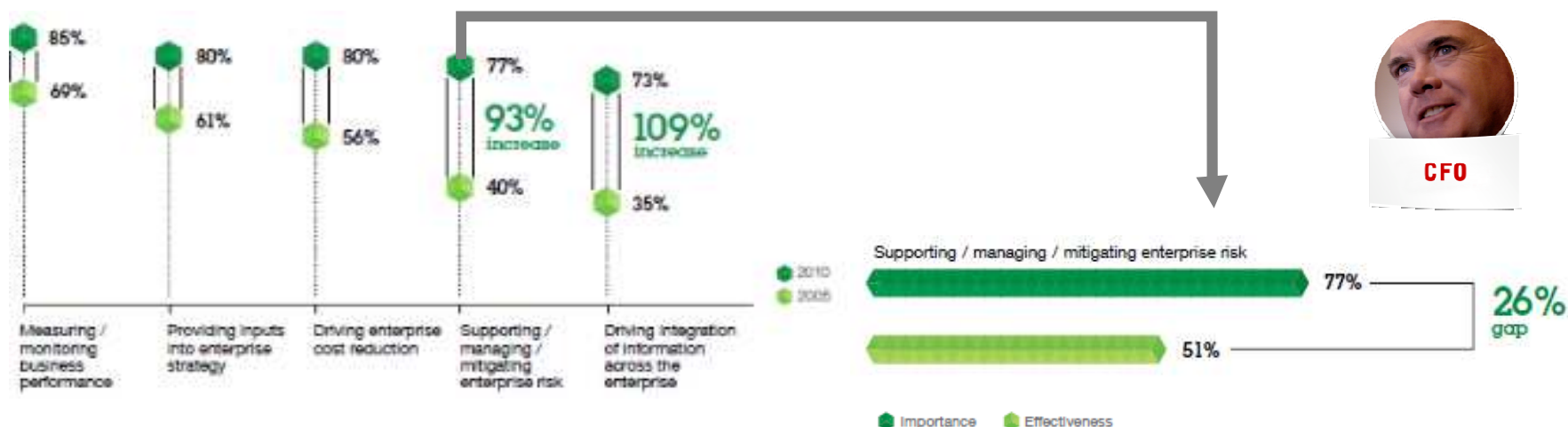
Exactly how does it effect an organisation's profitability?

Can it improve business performance?

Risk has never been a bigger challenge than in today's business environment ... *new regulations, globalisation, increased risk and business velocity, and an explosion of information...*

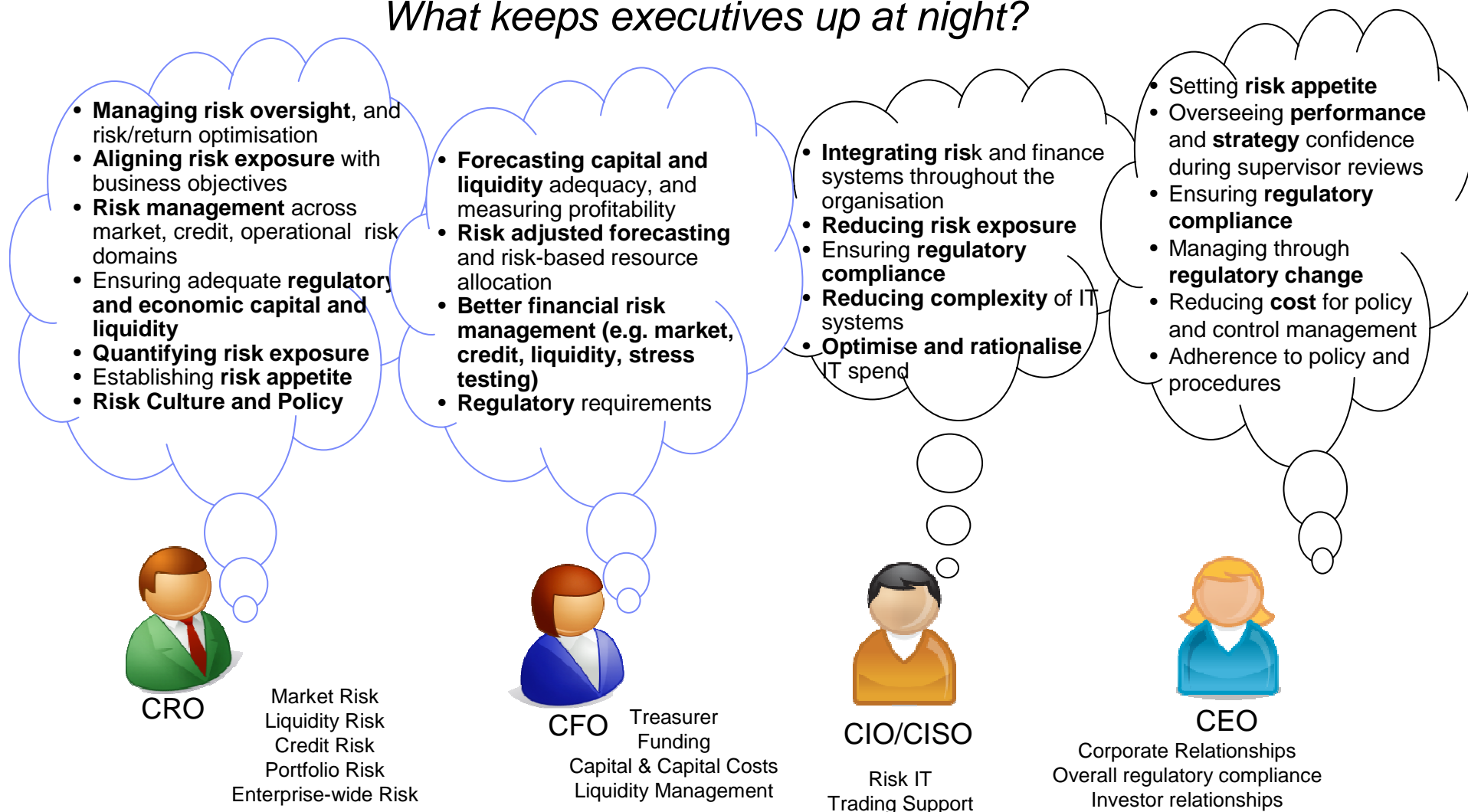


all demand more effective compliance and risk management practices and better alignment of risk and performance management objectives for better business outcomes



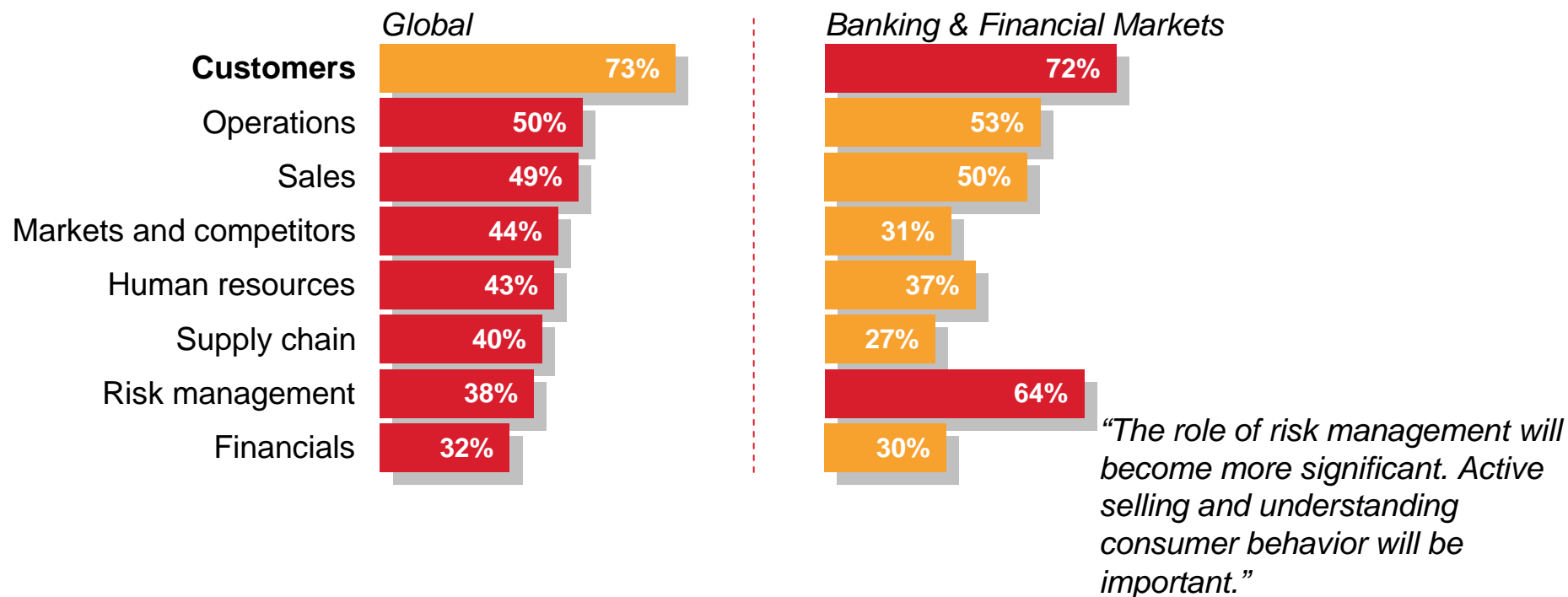
Risk Management Challenges

What keeps executives up at night?



CEOs identify customer insights and risk management as the most critical areas for investment

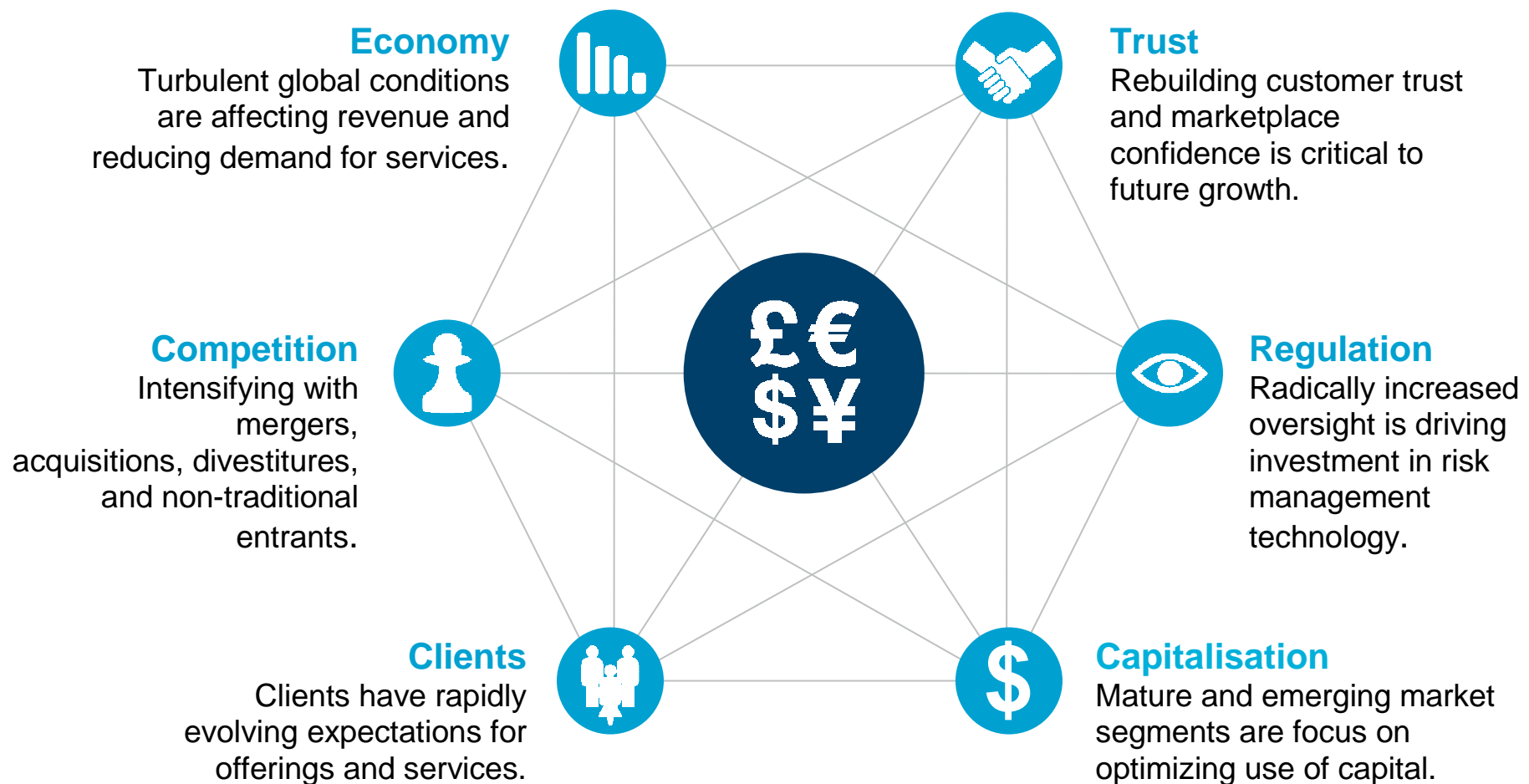
Drawing insight from information – Areas of improvement



Financial Services CEO, Europe

Source: Q23 "In which areas do you plan to improve your ability to draw meaningful and executable insights from available information?"
(Global n=1609 to 1658) (Banking & FM n=200 to 213)

Industry changes mean that “business as usual” is no longer an option



What is different about each of the following cases?

Are these examples of Risk Management?

Two reactors shut on safety concerns

...was forced to shut 2 nuclear reactors yesterday to replace components that had not been properly vetted....

“unprecedented” power shortages to follow...

...while they replace more than 5000 fuses,...for which suppliers had provided faked quality certificates.

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HSBC legal costs rise by \$1.1Billion

Europe’s largest bank has set aside an additional \$1.15Billion to cover potential US fines for money laundering by its Mexican unit and penalties for mis-selling...

...a 52% fall in third-quarter profit...

...is also likely to face criminal charges

Impact on the companies' financial performance

Case #1 – KHNP (South Korean Nuclear Plants)

Insufficient processes and oversight

Potential fraudulent behaviour???

Total cost to be determined: lack of production (= revenue losses), potential regulator fines (due to failure to dispatch), cost of investigation (unexpected, no provisions made) – ***will be well into the Millions***

The total cost of the parts which caused this issue were only worth \$750 000

Impact on the companies' financial performance

Case #2 – HSBC

Caused by control breakdowns in AML **lack of oversight and controls**

Other issue was mis-selling of payment protection insurance policies – poor training, bad product structuring, lack of controls, little oversight **Policy & compliance issues + poor training and oversight**

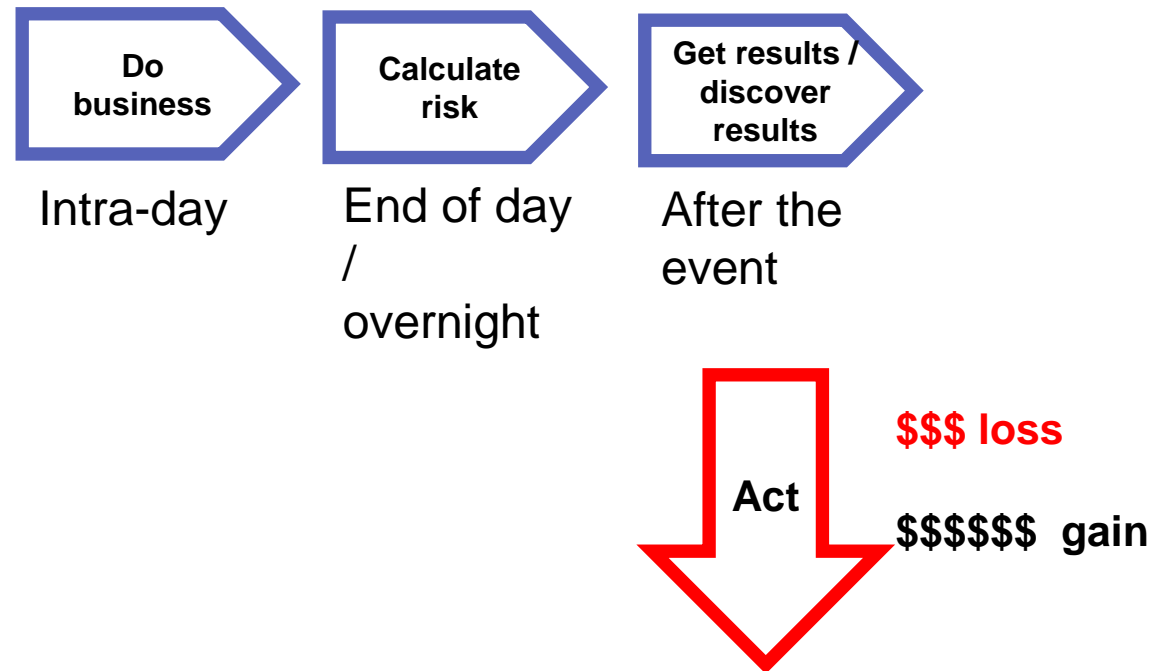
How can this be prevented from happening again?

What action will a regulator take if the problems aren't fixed?

*These two cases have one thing in common: **Risk***

Some insights as to how effectively managed, organisations who are risk aware can benefit from using Risk Management in an effective and proactive way

“old world” approach

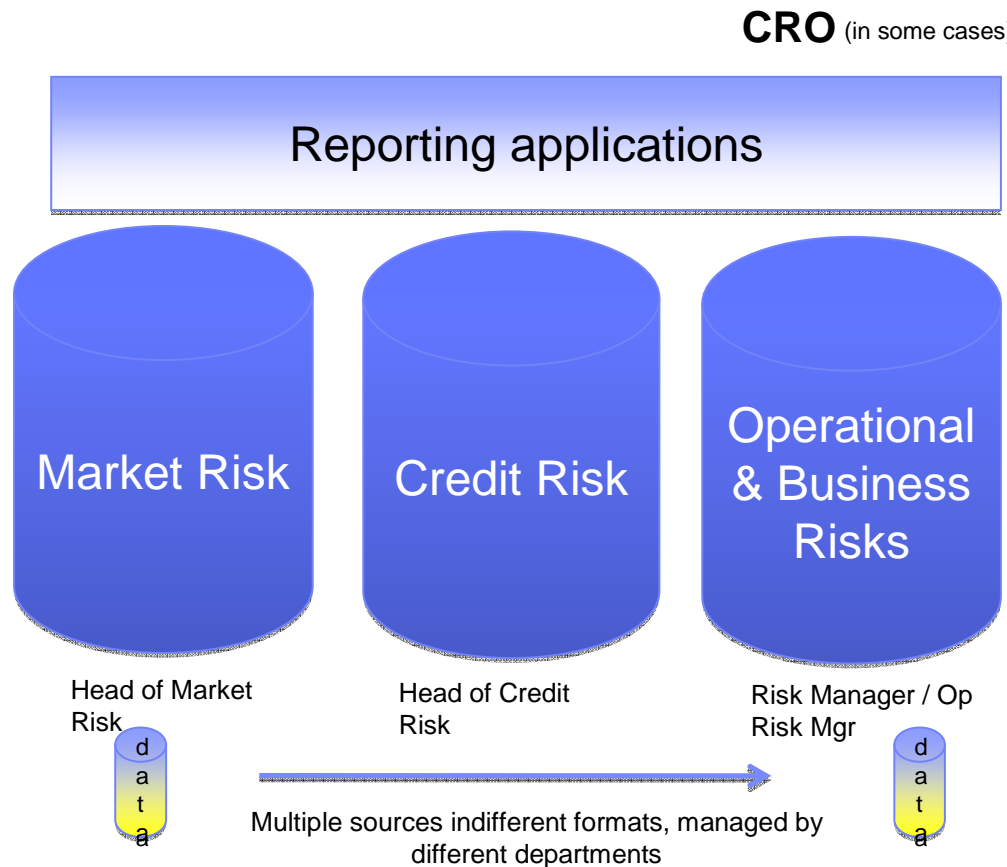


Loss(es) not defined or known until after the event

“Closing the stable door after the horse has bolted” , discover losses after doing business, impact on performance and profitability, limited or no alternative for mitigation.

Old World Risk Management Philosophy

A “silo-ed” approach to risk management



- Separate measures and KRI's
- Difficult to track risks, frequency & severity & impact
- Trends and losses not easily identified – in fact, often go unnoticed
- Lack of transparency, lack of information at the right time
- No correlation of business performance
- Inconsistent data
- Difficult and time-consuming to prepare reports (esp Regulatory & Financial), and Risk
- Inability to model impact of macro-economic or other events on business performance
- No clear ownership

Old World Risk Management Philosophy

A "silo" approach to risk management

CRO (in some cases)



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“Best Practice”

Defined risk strategy – and clearly articulated Risk Appetite

Risk is owned and managed by the business / operational units - with oversight from the Risk Management (CRO's) department

Calculate risk and exposures – within day, in real-time, at other interval matched to business

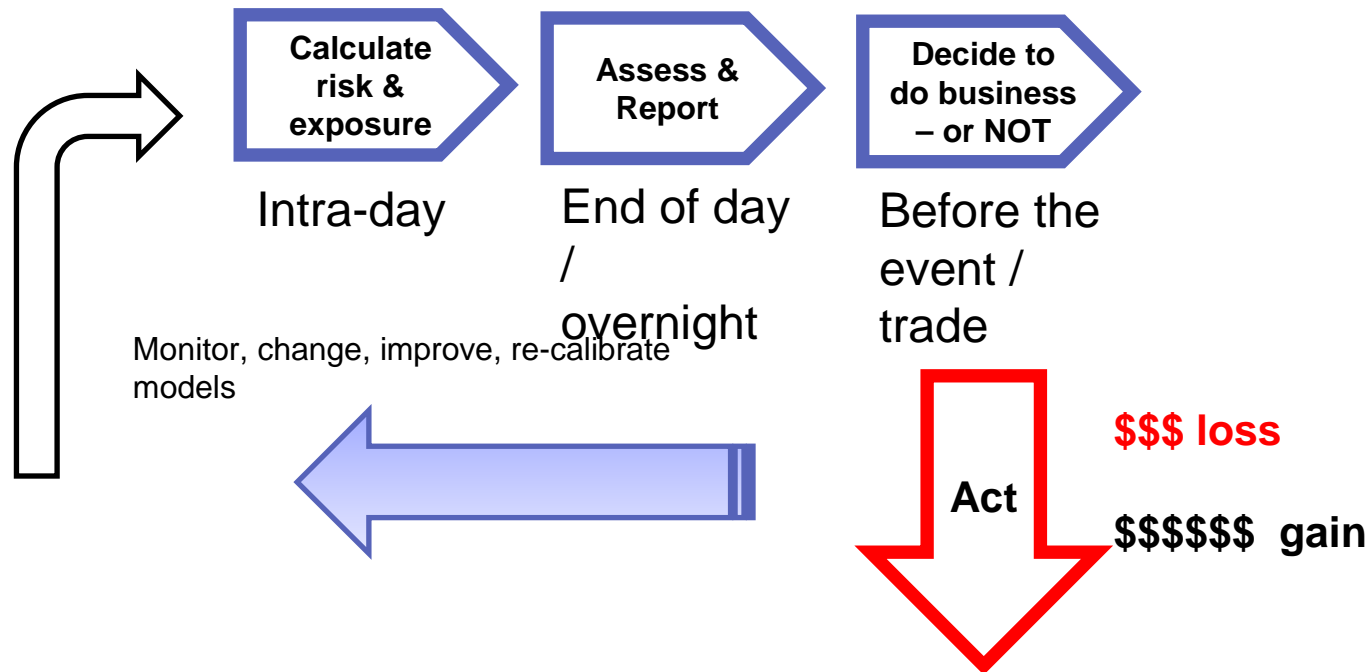
Do business – if the transaction business falls within the defined risk appetite and tolerances

Measure, monitor & report

Act – in the case of adverse events effecting the business, link to risk strategy and tolerances

“make risk-informed business decisions”

“Best Practice” approach



Trade / execute only within pre-defined limits and leverage controls in order to avoid / minimise financial loss(es)

Act within a set of agreed, consistent guidelines and limits, with clearly defined processes and measures to avoid unexpected losses and increase performance.

“Best Practice”

Implement the right processes and systems to help them manage risks

Constantly review and modify procedures

Communicate key risks across the organisation

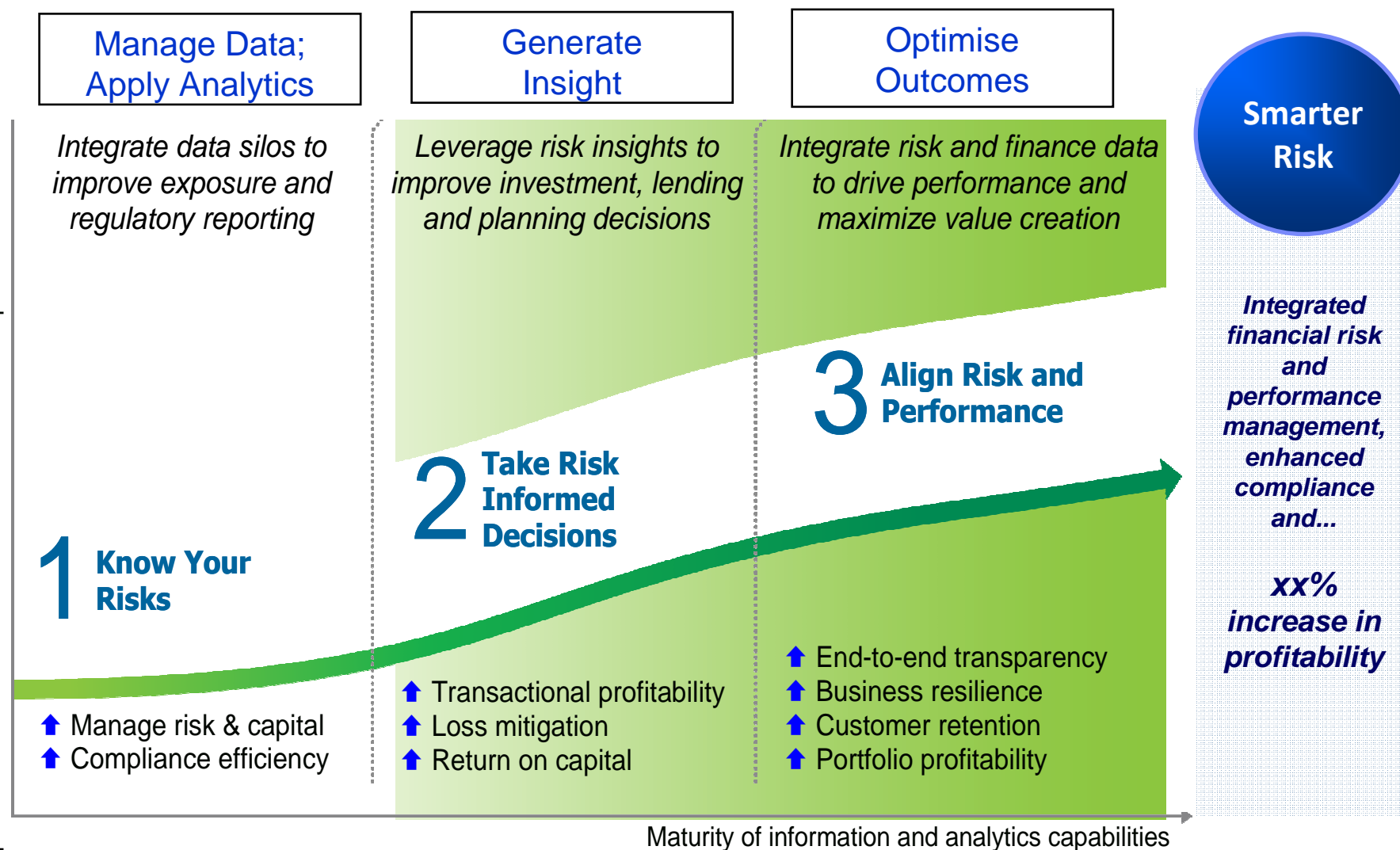
Ensure timely dissemination of information across the business

Equip themselves to act quickly and effectively to mitigate risks

Business is able to manage and absorb losses within defined tolerances

What does IBM do to help firms manage risk and boost profitability?

Risk-Enabled Enterprise: *A risk platform common to financial & operational management, risk and compliance needs delivers economic benefits*



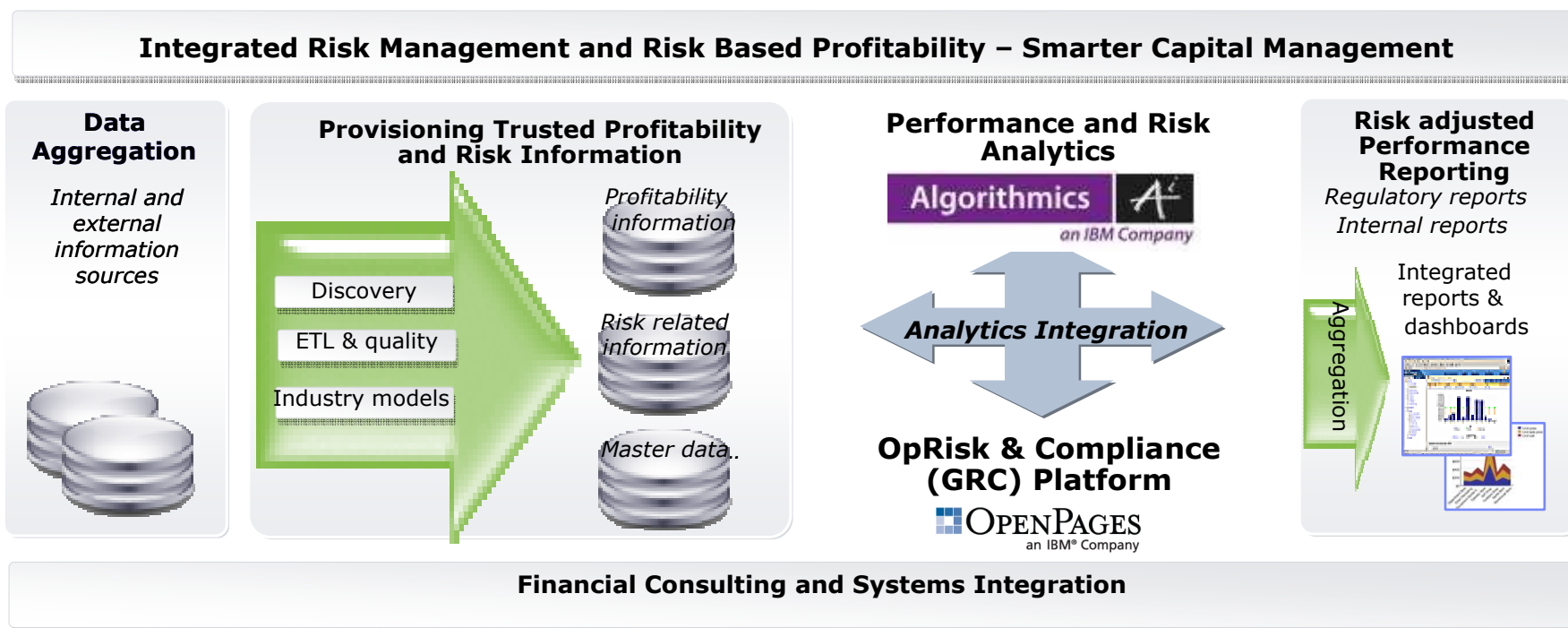
Analytics for optimising risk & capital management



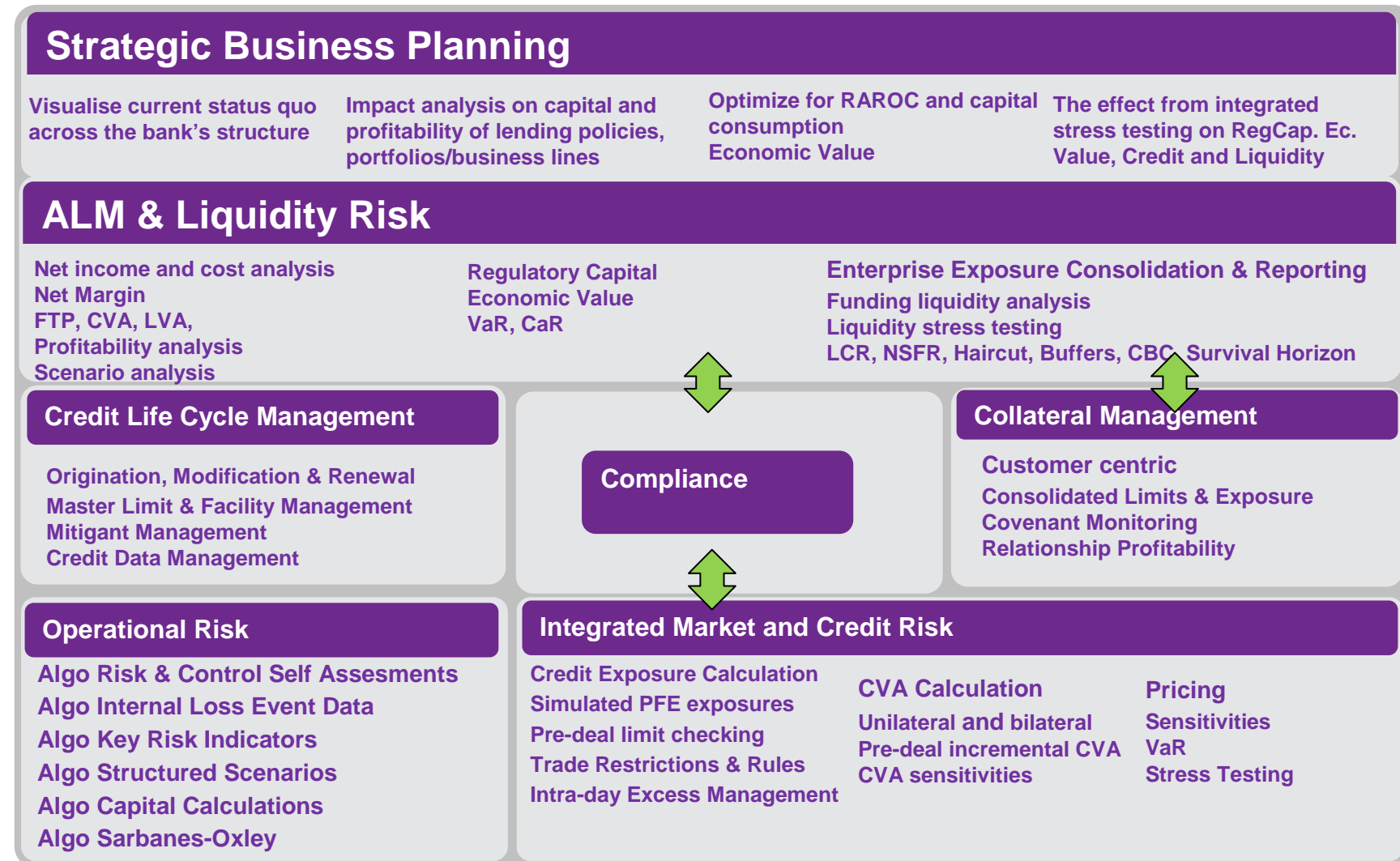
IBM differentiators in profitability, risk and compliance

- Breadth and Quality of Profitability and Risk Analytics
- Systems Implementation and Integration Capability
- Consulting Services enabling effective Operating Models

Smarter Capital Management for Turbulent Times integrates risk and profitability, providing enterprise risk, capital and performance management and reporting



Enterprise Risk Management



IBM Positioned in Leaders Quadrant of the Magic Quadrant for Enterprise Governance, Risk and Compliance Platforms

Magic Quadrant for Enterprise Governance, Risk and Compliance Platforms



Source: Gartner "Magic Quadrant for Enterprise Governance, Risk and Compliance Platforms", French Caldwell, Tom Scholtz, John Hagerty July 13, 2011

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Chartis Research ranks the combination of IBM, Algorithmics and OpenPages 1st overall in Risk Analytics

Table 2: RiskTech100® Top 10

Rank 2011	Rank 2010	Company	HQ	Total Score	Functionality	Core Technology	Organizational Strength	Customer Satisfaction	Market Presence	Innovation
1	7	IBM	US	69.8%	79%	73%	65%	63%	72%	67%
2	1	SunGard	US	66.8%	76%	63%	70%	60%	71%	61%
3	2	SAS	US	65.8%	77%	74%	63%	58%	62%	61%
4	9	Oracle	US	63.3%	70%	72%	61%	57%	60%	60%
5	6	Moody's Analytics	US	62.5%	61%	64%	64%	62%	62%	62%
6	8	Wolters Kluwer FS	US	62.0%	63%	56%	69%	61%	63%	60%
7	17	Misys	UK	61.7%	68%	59%	62%	59%	62%	60%
8	4	Fiserv	US	61.3%	62%	58%	69%	63%	61%	55%
9	5	MSCI	US	61.3%	59%	53%	69%	63%	63%	61%
10	12	NICE Actimize	US	60.3%	60%	59%	62%	58%	61%	62%

Source: RiskTech100® 2011

Chartis Research Ranks IBM a Category Leader in Basel 3 Technology Solutions 2012

Figure 14: Chartis RiskTech Quadrant™ for Basel 3



“IBM Algorithmics’ Basel 3 capabilities are built on its enterprise risk management architecture, Algo One.”

“Examples of IBM Algorithmics’ key differentiators include common risk analytics across the enterprise, integrated stress testing and capital optimization.”

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Analytics solutions for optimising risk management

Superior analytics capabilities, best practices and models to accelerate time to value



Financial Risk Management

Algorithmics, an IBM company, has a suite of solutions that combine proven software, services, advisory and content for scalable enterprise-wide risk management including:

- Actuarial and Financial Modeling
- Balance Sheet Risk Management
- Collateral Operations & Reconciliation
- Credit Data Consortium Services
- Credit Lifecycle Management
- Credit Regulatory Capital Management for Banks
- Strategic Planning
- Enterprise Risk Management (ERM)
- Economic Capital and Solvency II
- Integrated Market and Credit Risk
- Investment Design for Wealth Managers
- Portfolio Construction and Risk Management for Fund Managers
- Portfolio Construction and Risk Management for Hedge Funds
- Regulatory Reporting
- Compliance

