airmic fastTrack

Risk Maturity and Communicating the Value of Risk Management

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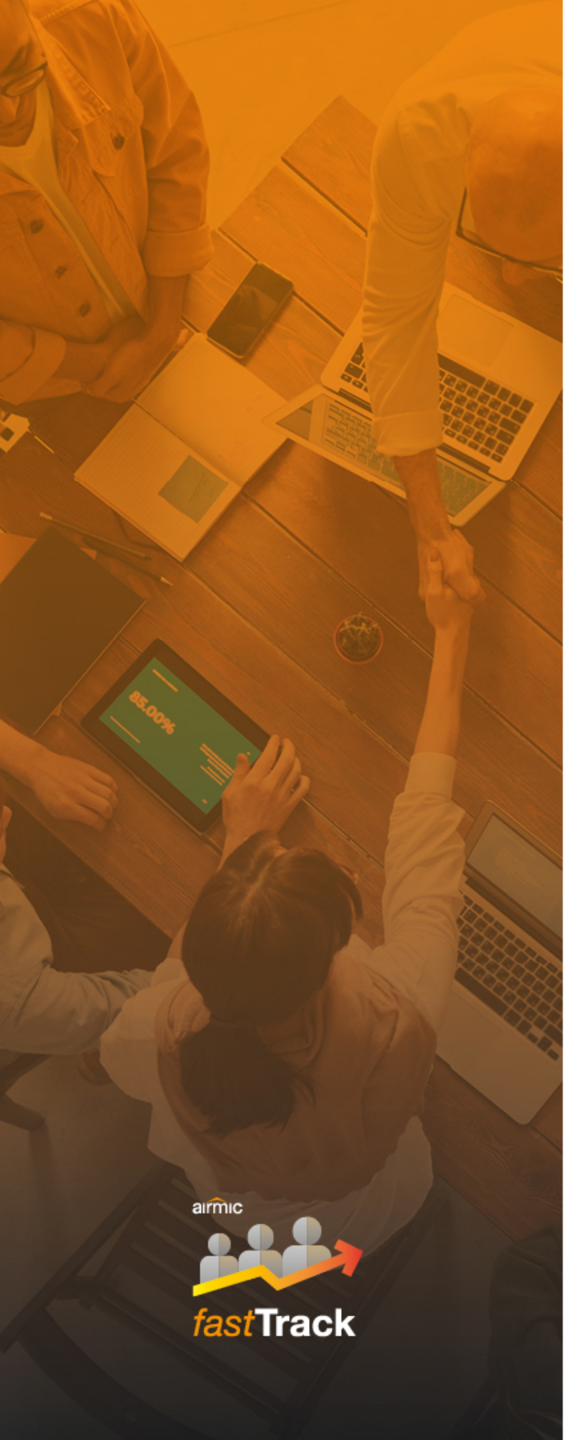
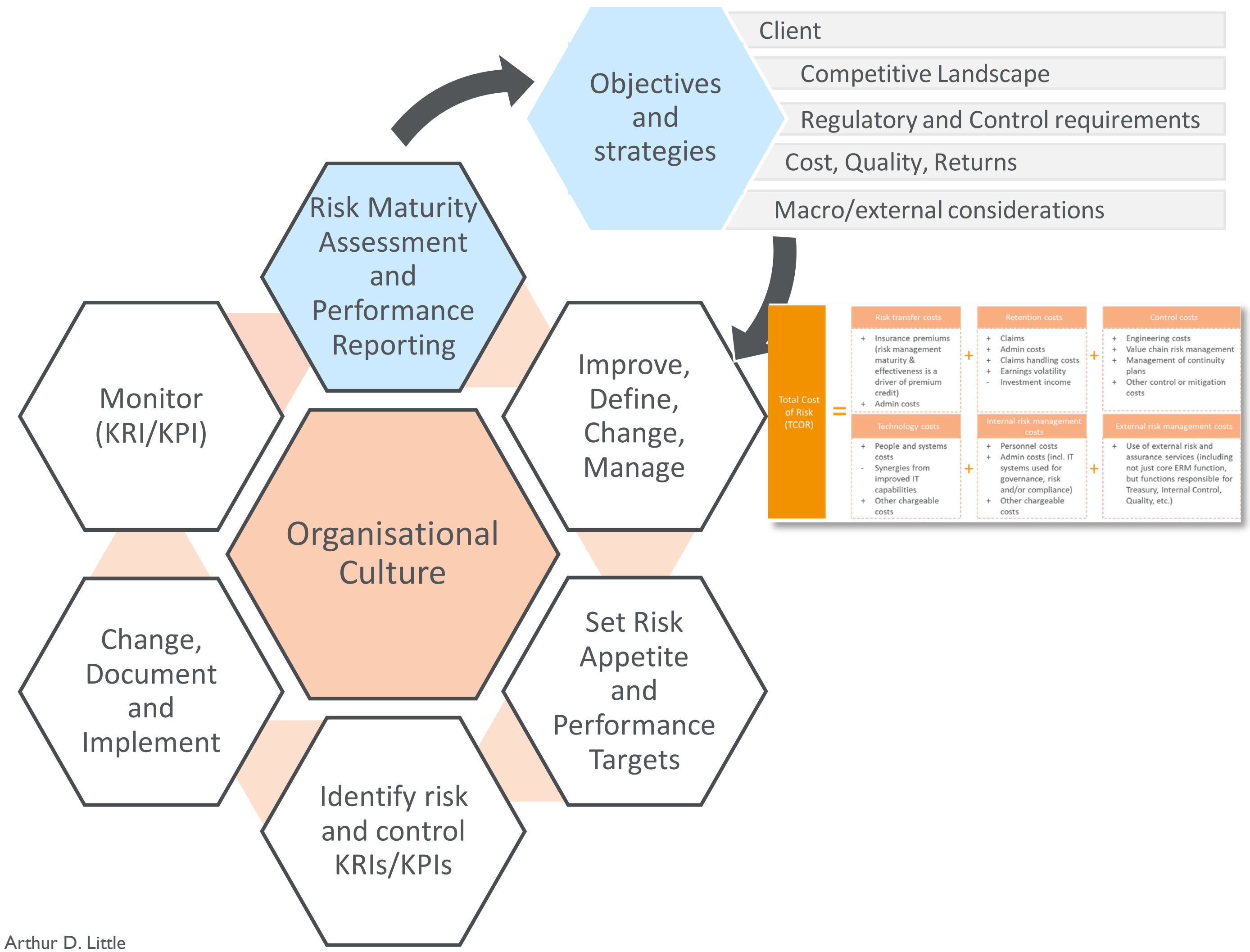


Learning Objectives

- Principles — Understand the definition of risk maturity
- Principles — Understand the use and benefits of risk maturity models
- Principles — Understand the meaning of Total Cost of Risk (TCOR)
- Principles — Demonstrate how TCOR can be derived to demonstrate value from effective risk management
- Examples — Understand how risk maturity and TCOR approaches are applied in practice through the use of case studies

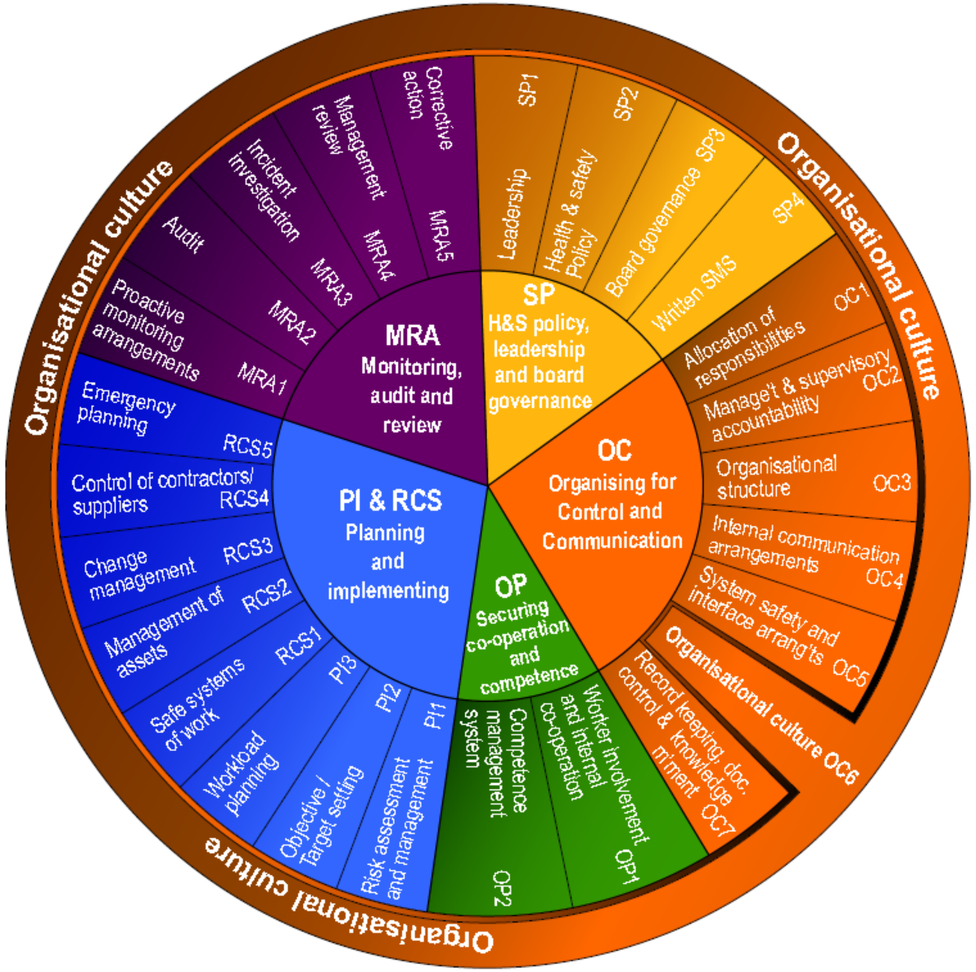
Risk Maturity to Drive Continuous Improvement

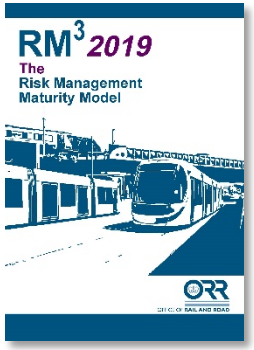


Source: Arthur D. Little

- **Risk maturity assessment** identifies control gaps, failures and improvements, **informing strategy**
- **Risk maturity models rationalise gaps** against the risk appetite and materiality
- *In financial services, risk maturity maybe defined as an aggregate of Residual Risk= Inherent Risk x Effectiveness of controls*
- Risk maturity helps prioritise **remediation activities and continuous improvement** initiatives by providing a tangible, measurable, year on year framework which identifies progress
- It enables a **comprehensive cost benefit** analysis of attaining the business objectives, by considering not solely performance and risk facets to change
- **Risk maturity enables decision making** and empowerment, and delegation within defined materiality thresholds and risk parameters

Example of good practice: the rail industry uses a tool - the RM^3 - developed by the Regulator to assess Risk Maturity



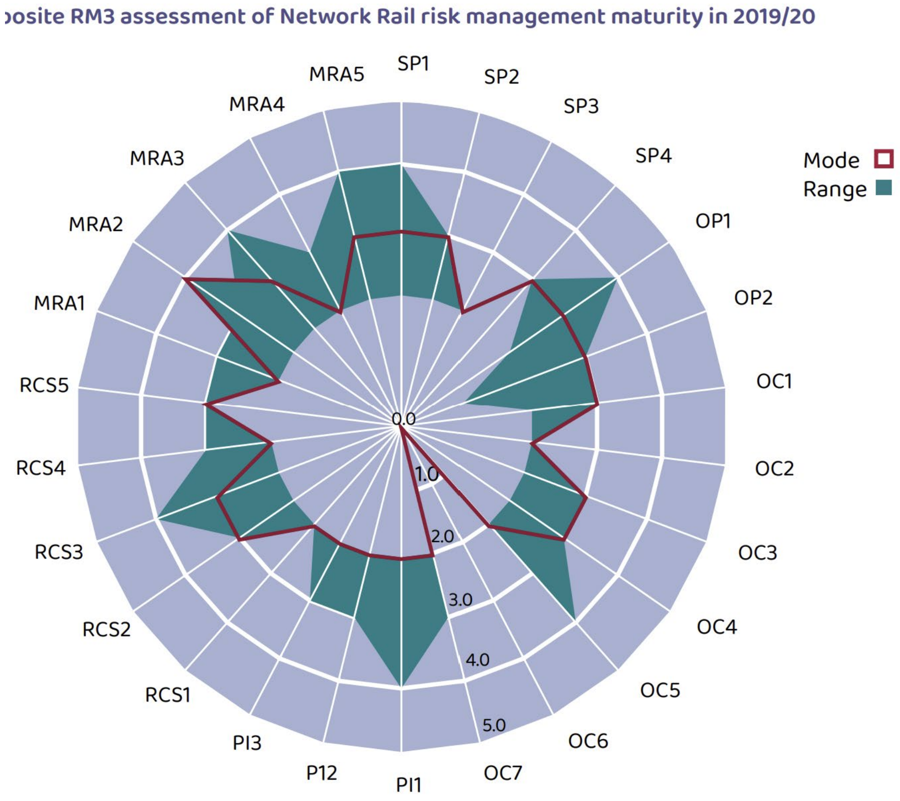


- Rail has taken risk management very seriously in respect of its most important risk – safety
- Highly effective Regulator / regulated party relationship has evolved, which 'drives a conversation'. Regulated parties comment that relationship is far better than that in other sectors as Regulator does not chase fees or fines
- Railway culture is one of not competing re: safety, and this is enshrined in regulation
- RM3 developed by regulator, and then given out for parties to do self assessment
- RM3 has 26 elements, five main areas. Criteria define **Excellence** in safety management for each element

RM3 is getting traction outside Rail – e.g. construction, utilities

Example: RM3 provides a framework for monitoring progress in safety management, and a "common language" to drive discussion

SP1 Leadership
SP2 Safety Policy
SP3 Governance
SP4 Written SMS
OP1 Worker Involvement
OP2 Competence Management
OC1 Allocation of responsibility
OC2 Management and supervisory accountability
OC3 Organisational Structure
OC4 Internal Communication
OC5 System Safety and Interface
OC6 Organisational Culture
OC7 Record Keeping and Document Control
PI1 Risk Management
PI2 Target Setting
PI3 Workload Planning
RCS1 Safe Systems of Work
RCS2 Asset Management
RCS3 Change Management
RCS4 Control of Contractors
RCS5 Emergency Planning
MRA1 Proactive Monitoring
MRA2 Audit
MRA3 Incident Investigation
MRA4 Management Review
MRA5 Corrective Action



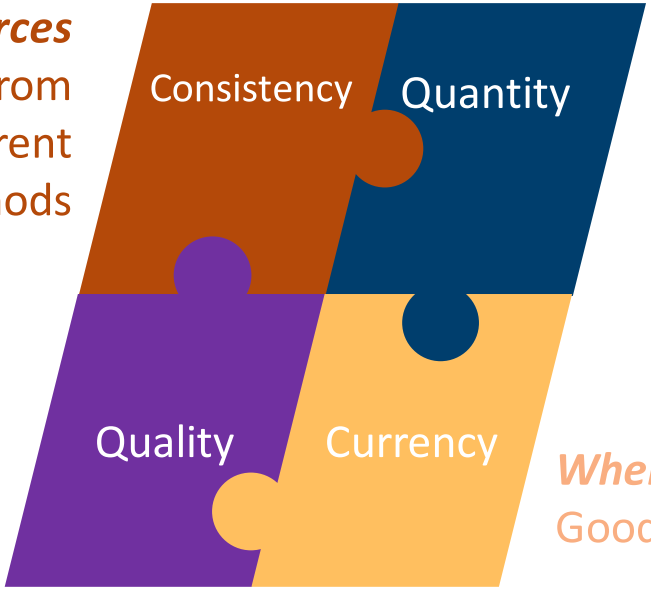
5. Excellence	Proactive/continual improvement
4. Predictable	Predictable delivery of processes, changes controlled
3. Standardised	Documented processes, consistent across organisation
2. Managed	Repeatable performance at local level, but variation in processes
1. Ad hoc	Processes undocumented, delivery uncontrolled and reactive

- 5 maturity levels
- Defined ***maturity criteria*** for each element
- Honesty and openness is CRITICAL

Example: a transferable good practice of RM3 is using CQQC to evaluate sources of evidence to determine the overall rating

Data collected from different sources
Good = converging evidence from multiple locations / times / different methods

How much data and how many observations
Good = larger number of observations is stronger



How data was collected
Good = formal evidence, traceable sources and representative sources

When data was collected
Good = newer

Applying maturity self assessment needs a careful approach

Success factors

- Honesty
- Collaboration
    - Staff at all levels
    - Suppliers and customers
    - Peers and regulators
- Two-way discussion
- Real world (“work-as-done”)
- Commitment to improvement
- Basis for challenge and reflection

Warning signs!

- Cursory, check-box exercise
- Narrow participation
- Insular, inward looking
- Remote assessment
- Cherry-picked evidence
- Focus on paper systems
- Justifying complacency
- Basis for perception management

Example: Sceptics can end up being the leaders of a strong risk management approach

- The new CEO of a global public transport company could see that accidents were not only harming people but eroding profits
- They rolled out a new safety campaign and introduced 12 Global Standards for all business units to implement including

Higher vehicle and engineering standards

More rigorous and frequent driver assessment and competence standards

Investing in smart cameras and other safety technologies

- Business Unit Leaders concerned about costs in what is a low margin business
- The most sceptical country were initially resistant and thought it would put them at a commercial disadvantage in bidding for new contracts

- Just 18 months later they were converted
- Accidents came down, as did insurance premiums, and costs of repair
- They started to win more contracts as they leveraged their advantage in technology, driver competence and safety record
- In developed countries they started a new business as a training school

Defining and calculating an organisation's Total Cost of Risk (TCOR) requires understanding of a number of factors

Total Cost of Risk (TCOR) =

Risk transfer costs
+ Insurance premiums (risk management maturity & effectiveness is a driver of premium credit)
+ Admin costs

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Retention costs
+ Claims
+ Admin costs
+ Claims handling costs
+ Earnings volatility
- Investment income

\+

Control costs
+ Engineering costs
+ Value chain risk management
+ Management of continuity plans
+ Other control or mitigation costs

Technology costs
+ People and systems costs
- Synergies from improved IT capabilities
+ Other chargeable costs

\+

Internal risk management costs
+ Personnel costs
+ Admin costs (incl. IT systems used for governance, risk and/or compliance)
+ Other chargeable costs

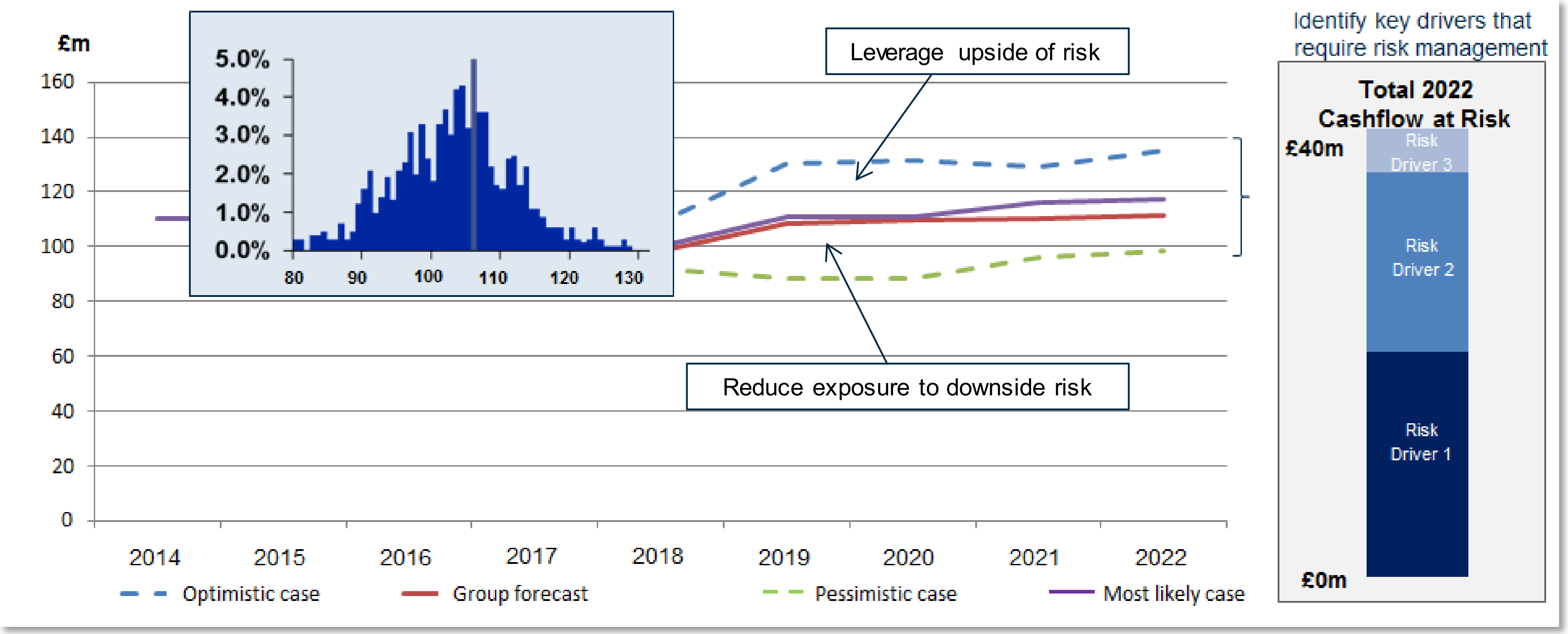
\+

External risk management costs
+ Use of external risk and assurance services (including not just core ERM function, but functions responsible for Treasury, Internal Control, Quality, etc.)

Quantifying Key Risks

Risk quantification and sensitivity analysis:

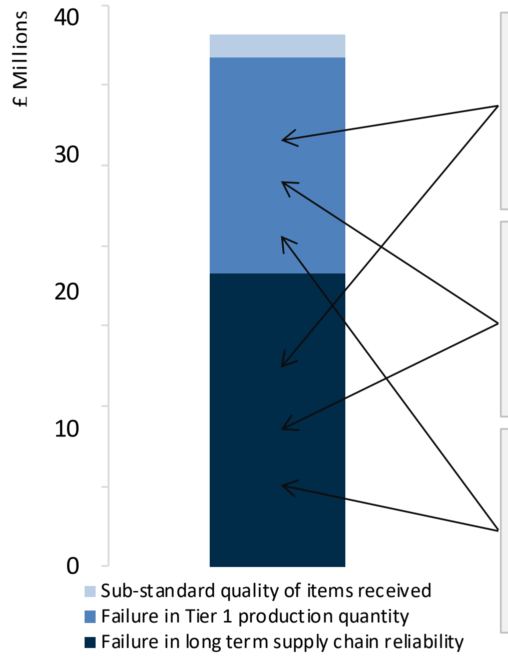
- Net exposure to cashflow/EBITDA accounts for existing controls & insurance policies & is quantified by a risk modelling / simulation
- The quantification approach should be aligned with the planning cycle timeframe and can be linked to the existing forecast model
- Sensitivity analysis will quantify the potential reduction in exposure associated with key improvement actions



Setting risk management strategies through sensitivity analysis

Sensitivity analysis will provide an initial view of the potential reduction in exposure associated with each of the identified improvement actions, prioritised according to their potential quantitative impact

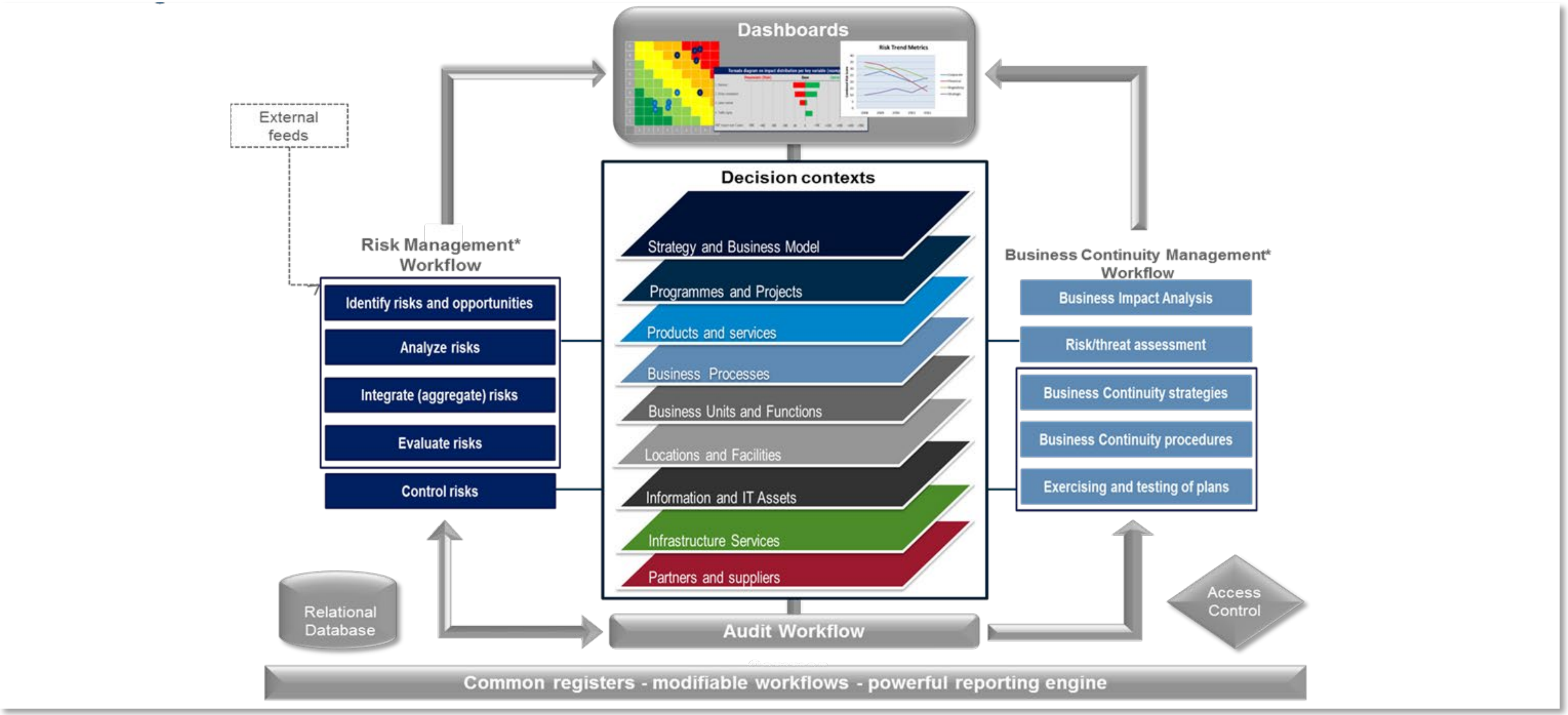
Extrapolated impact of key supply chain drivers at Group level over a five year period



Recommendations to improve supply chain risk management and the risk drivers that would be impacted	Potential exposure reduction
Develop an improved understanding of Tier 1 and Tier 2 supplier interdependencies and related risks to develop appropriate risk management strategies:	30%, £12m
Development and implementation of business continuity plans for key Tier 1 suppliers:	15%, £6m
Implementation of a process to assist suppliers in crisis, such as those in financial distress, those with regulatory or lower tier supply issues:	15%, £6m

Reducing Costs of Risk Management

An integrated systems approach ensures that all relevant risk and resilience data is stored in one place, thereby providing a cost effective solution to support minimising operational interruption and additional costs of working



Articulating value from risk management can extend to direct and indirect benefits

Direct benefits

- Cost efficient and pragmatic strategies to reduce the Value at Risk
- Prioritised view of key risk drivers and underlying root causes
- Ability to pro-actively monitor early indicators of emerging risks
- Robust estimate of the financial impact of risk scenarios to inform decision making
- Business case for improvement actions through sensitivity analysis demonstrating their potential VaR reduction
- Identification of potential opportunities to streamline risk management processes and reduce associated costs
- Potential reduction in insurance premiums
- Identification of weaknesses within existing controls

Indirect benefits

- Increase customer satisfaction
- Improved brand equity
- Improved credit rating
- Reduced earnings volatility

Total Cost of Risk optimisation and bottom line growth

Final Thoughts

- ***Good practice*** suggests that driving maturity / progress in risk management benefits from a well regarded model and excellent relationship between regulator and regulated parties. Self assessment requires honesty and openness, and willingness to adapt
- ***Organisational culture*** is at the heart of risk management maturity and should always be considered in any assessment
- The ability to provide ***financial insight*** against key risks is important to achieving key stakeholder attention and commitment
- A methodology should be developed that will be able to demonstrate ***tangible benefits*** from effective risk management
- Efficiencies can be developed through the use of ***effective software systems*** that can help to integrate risk prevention, business continuity and assurance functionality
- An ***improved balance*** between risk retention, risk management and risk transfer (insurance) is key to help drive business performance

Arthur D Little

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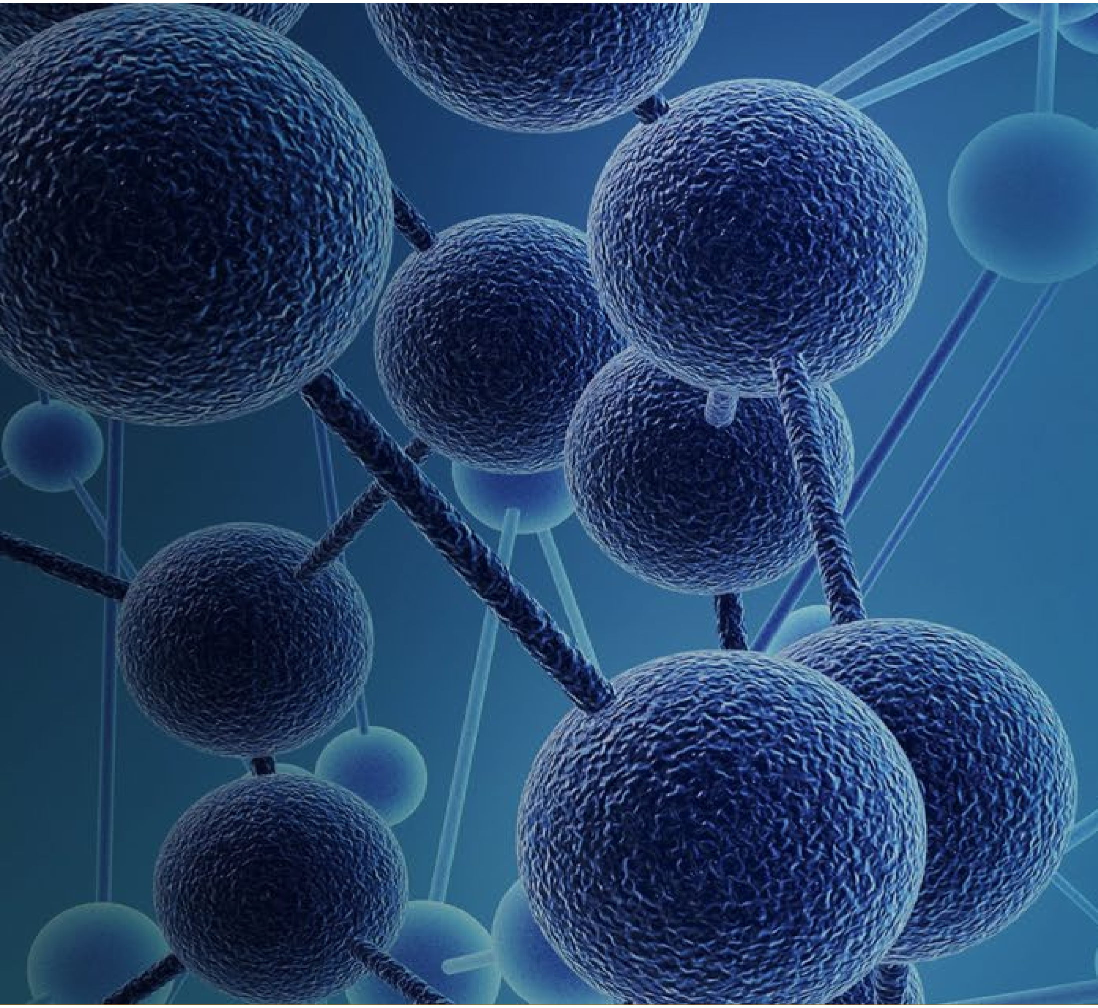
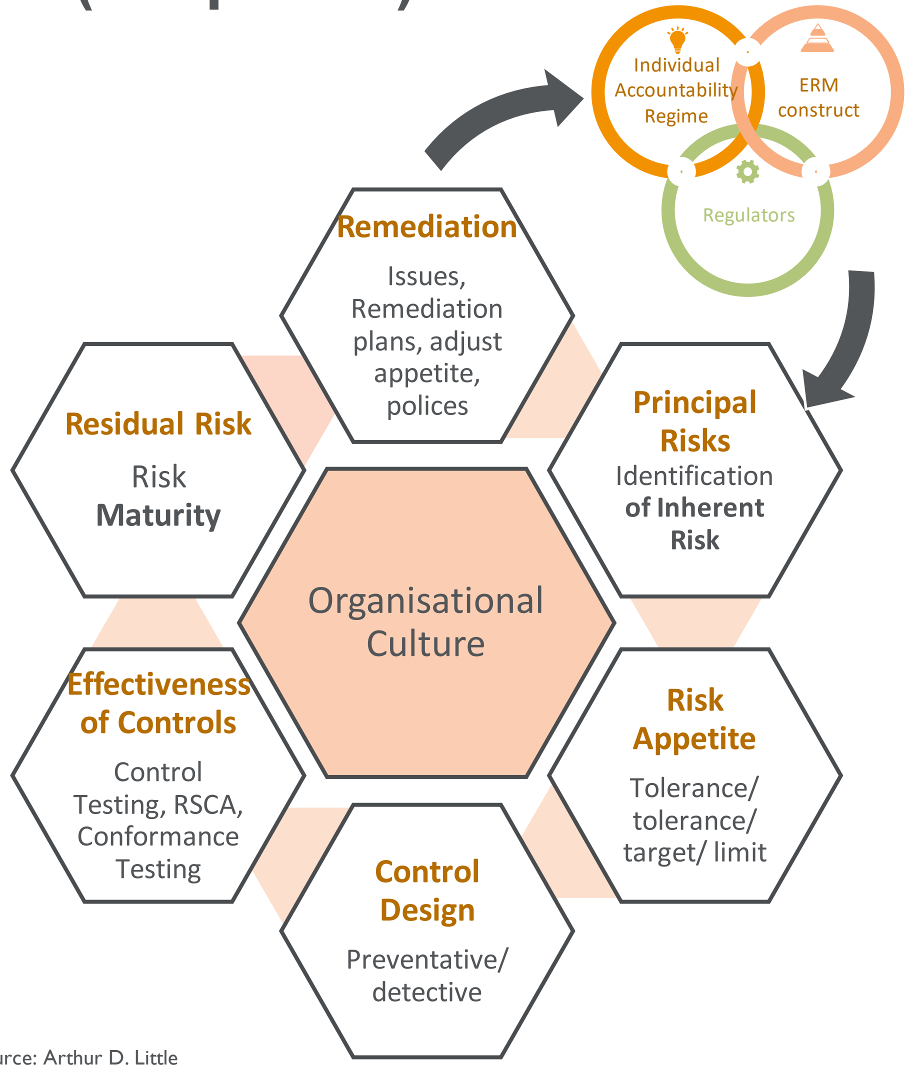


- **Innovating business – since 1886**
  - Anticipating megatrends, building innovation capabilities and transforming organizations is our everyday business
- **Linking strategy, innovation, and transformation**
- **in technology intensive and converging industries**

We combine strategic insight, innovation expertise, deep industry knowledge and technology understanding to help our clients grow and transform

- **Working uniquely, differently**
  - Our side-by-side approach integrates latest knowledge and next level thinking seamlessly into your business

Supporting backup slide example: Financial Services - Risk Maturity (simplified)



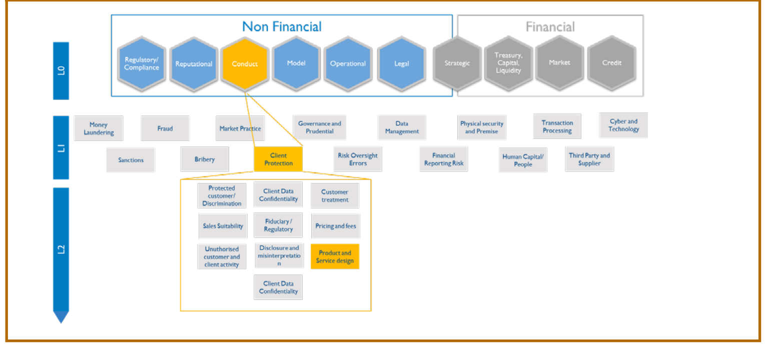
MATURITY: Risk Maturity is an aggregate of Residual Risk and denotes how well the firm is managing both each business horizontal and each principal risk vertical.
Where :
Inherent Risk x Effectiveness of controls = Residual Risk

COMMUNICATION:
The vertical and horizontal aggregation communicate alignment with the Governance:

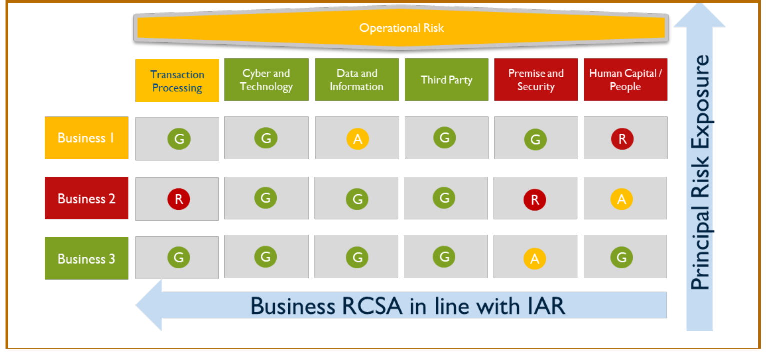
- Vertical – identifies the residual risk in the Principal Risk Exposure, which is utilised by Second Line to review policies' effectiveness and exposures.
- Horizontal: identifies exposure of each business line and its reporting structure by following the Individual Accountability Regime.

EVOLUTION:
From the risk maturity assessment, consequent remediation or improvements are initiated and logged as "Issues". A year on year improvement can consequently be tracked as the firm evolves or risk appetite is adjusted.

Principal Risk Construct



Risk and Control Self Assessment (very simplified)



The rating (red/amber/ green in the simplified example) indicates the residual risk vs risk appetite. To be noted that each vertical is segmented into each L2/3/4 risks and the associated thousands of controls these entail. Controls tested, as a minimum, annually.
Note: Some controls will mitigate multiple risks and can be allocated on a primary/secondary basis.

Source: Arthur D. Little