Risk Intelligence

A New Frontier of Management Thinking

March 2025

Source: Midjourney
Prompt: A futuristic tree standing tall, perfectly divided in half. One side is a natural tree with lush, vibrant green leaves and a strong, organic trunk. The other half is entirely technological, with glowing green circuits replacing the bark and branches, seamlessly merging with the organic side. The background is a sleek, high-tech blue setting, radiating a neon glow. The circuits pulse with energy, giving the tree a cybernetic, futuristic feel. The glowing elements create a mesmerizing contrast between nature and technology, symbolizing the fusion of the organic and digital worlds

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Contents

Risk Intelligence is more than just Risk Management

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What is Risk?

risk

noun

'the possibility of something bad happening'

'something bad that might happen'

risk

verb

'To do something although there is a chance of a bad result'

Risk addresses both quantifiable & unquantifiable uncertainty

Certainty

- A guaranteed single outcome

Uncertainty

- Multiple Possible Outcomes
- Risk exists where some outcomes are seen as undesirable (e.g., the possibility of loss)

Quantifiable

- Odds of possible outcomes are knowable and can be calculated in advance

'Mild Risk'

Unquantifiable

- Odds of possible outcomes are not knowable
- Possible outcomes may not be known (or knowable)

'Wild Risk'

In the real world, risk is almost always unquantifiable

We encounter risk in many places, and many flavours

Project Management

Uncertain events or conditions that could impact project timelines, costs, scope, or quality

Finance / Economics

Volatility or uncertainty in returns; potential for financial loss

Linked to risk-return trade-offs (higher risk = higher potential reward)

Health / Safety

Likelihood and severity of harm or adverse effects (e.g., workplace hazards, medical outcomes)

ISO 31000

The effect of *uncertainty* on objectives, encompassing both *positive* (opportunities) and *negative* (threats) outcomes

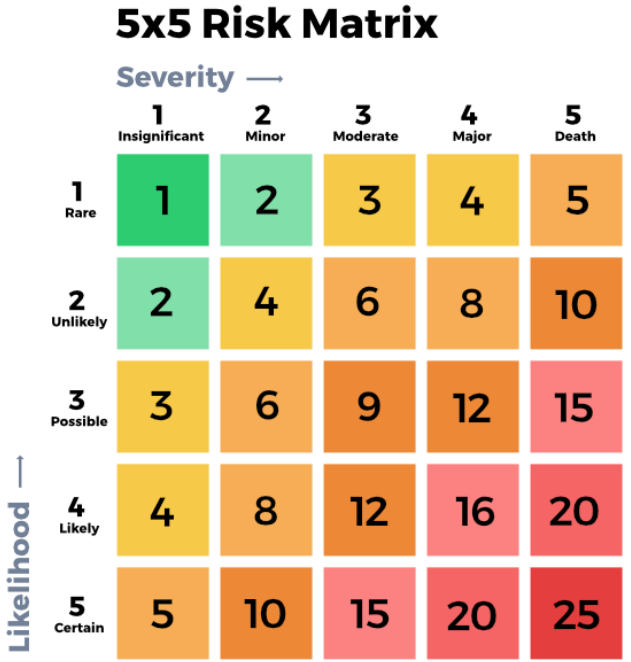
IT & Cyber

Threats to data confidentiality, integrity, or availability, assessed via vulnerabilities and attack vectors

Risk Management is an activity familiar to most

- Risk management typically follows a clear process
- Different frameworks may be more or less granular, but do not substantially differ

- One of the most familiar components of risk management is the assessment of risks based on
  - Likelihood of a bad outcome
  - Severity or impact of that outcome



- One potential problem with this approach is if we place too much faith in the quantifiability of the likelihood…

Risk Intelligence is much broader than Risk Management

Risk Management is an activity or a family of activities.

Risk Intelligence is a cluster of competencies that define, broadly, how we approach risk, with implications for how we think and act in a variety of business (and personal) situations.

Risk Intelligence (or its absence) can be apparent in decision-making from strategic to operational and transactional levels.

Elements of Risk Intelligence

- Risk perception and awareness, including foresight and scenario agility
- Analytical and critical thinking
- Strategic thinking
- Decision-making under uncertainty
- Emotional and interpersonal communication and influence
- Cognitive regulation
- Technical skills for designing and applying risk frameworks and quantitative models
- Adaptability

Useful models for thinking about Risk

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One useful framework is Roberts' (2020) RRR approach: Risk, Reward, and Resilience Framework

Risk, Reward, and Resilience

- Some frameworks for assessing and managing risk adopt a narrow scope that fails to account for the full range of impacts a decision can have
- The RRR framework is a general model to assist informed decision-making
- RRR models situations in a way that illuminates the synergies and trade-offs between risk, reward, and resilience
- Each component of RRR can be assessed independently through a rigorous and detailed analysis, based on three drivers
- By analysing the drivers of all three areas together, we can understand better the ways they interact with each other

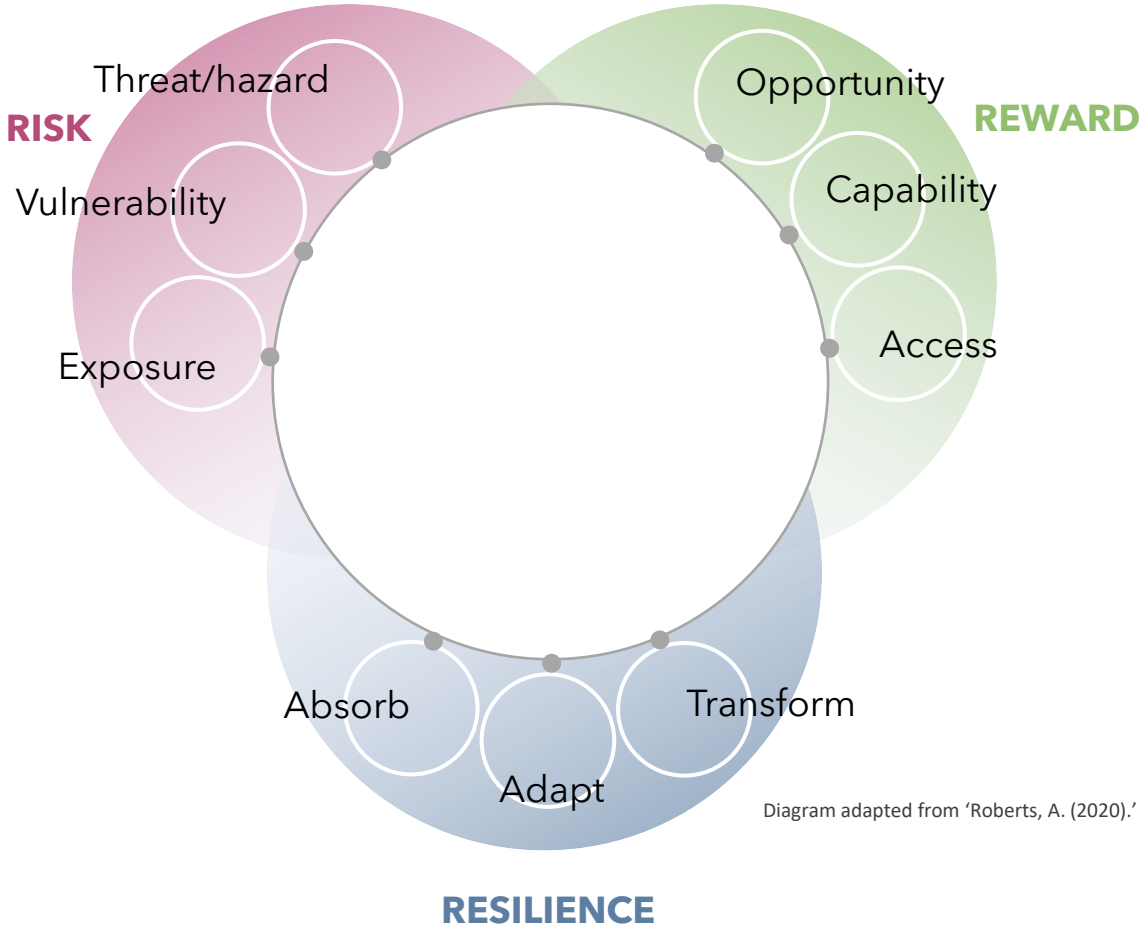
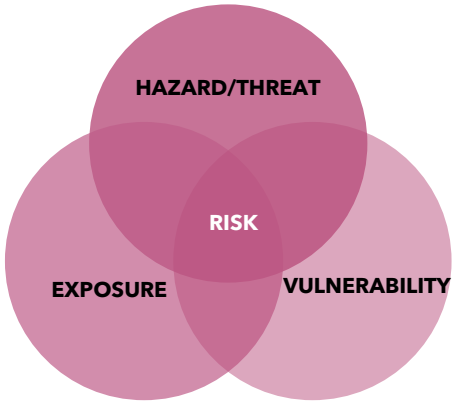


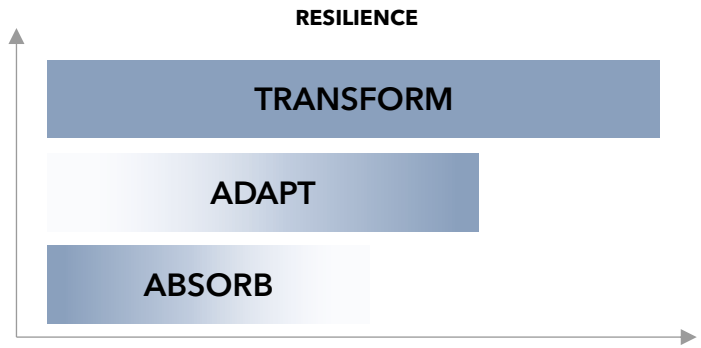
Diagram adapted from 'Roberts, A. (2020).'

Roberts, A. (2020). The RRR framework: A new approach to understanding risk, resilience, and responsibility. [Journal of International Economic Law]. [https://doi.org/10.1093/jiel/jgad009]

The drivers in the RRR framework encourage a more systems thinking approach

The first stage of RRR analysis is to identify and assess the drivers of the three components…





Hazards and Threats

The magnitude / seriousness of an external threat

Exposure

Whether (and to what extent) a particular actor or system is, or becomes, exposed to a hazard or threat

Vulnerability

The internal characteristics of that actor or system that are likely to exacerbate or reduce the harm suffered

Opportunity

Potential gains that might be achieved by undertaking a particular action

Access

Circumstances, channels, rules, or institutions through which a particular actor or system can take advantage of those opportunities

Capability

Internal characteristics of that actor or system that affect the gains an actor or system is likely to achieve from accessing those opportunities

Absorption

The ability of an actor or system to absorb the threat or hazard without suffering significant negative consequences

Adaptation

The ability of a system to respond to the threat or hazard by making adjustments that allow the system to continue functioning, although in a slightly different way

Transformation

The ability to transform the structures and incentives of the underlying actor or system in such a way as not only to recover from the shock but also to fundamentally change the actor or system going forward

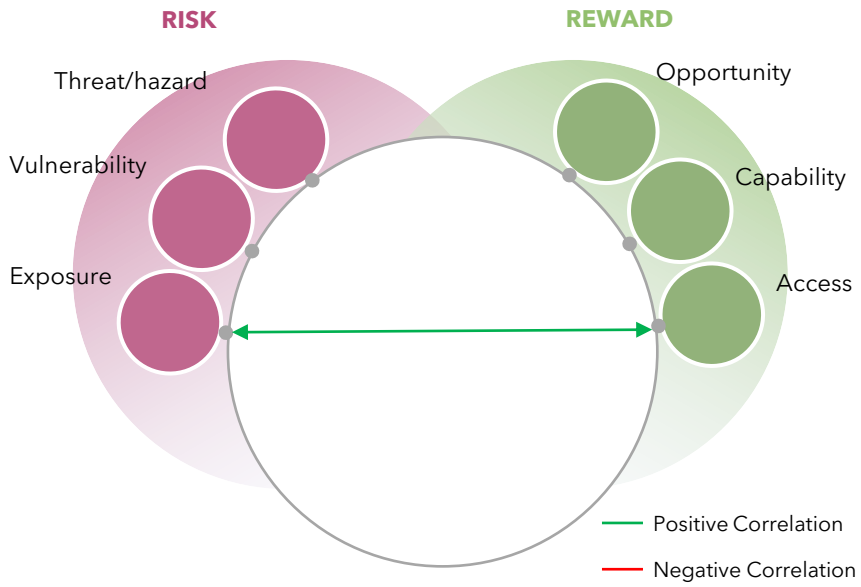
Roberts, A. (2020). The RRR framework: A new approach to understanding risk, resilience, and responsibility. [Journal of International Economic Law]. [https://doi.org/10.1093/jiel/jgad009]

Diagrams adapted from 'Roberts, A. (2020).'

In systems thinking, like the RRR approach, drivers interact

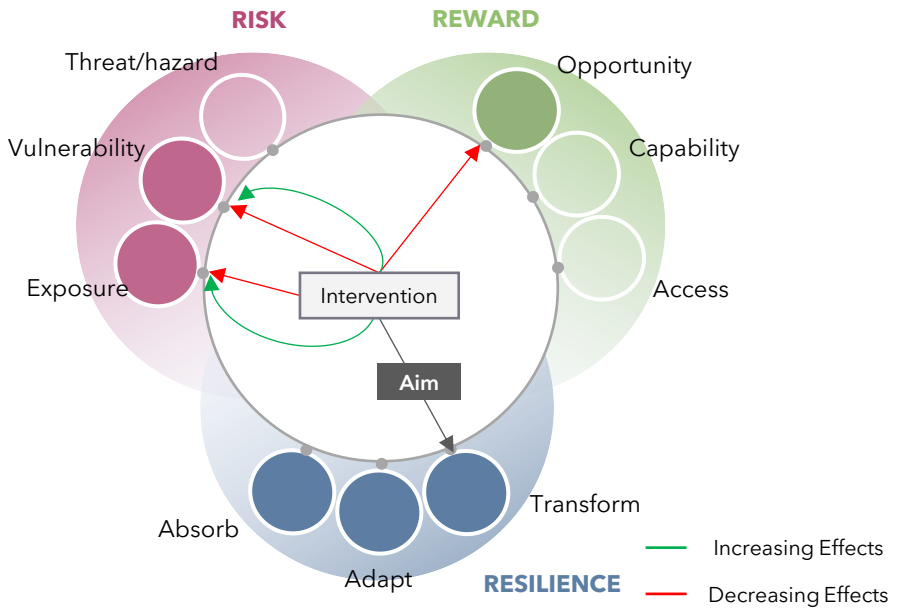
A key strength of RRR is its ability to represent potentially complex synergies and trade-offs

Driver Correlation



- Positive correlations between drivers illustrate where an increase/decrease in one driver will have a corresponding increase/decrease in another
- For example, reduced ***exposure*** to risk correlates to reduced ***access*** to reward

Synergies and Trade-offs



- Interventions are planned and implement with a given aim, e.g., to positively impact one driver
- However, they will tend to have increasing and decreasing impacts on other drivers as well

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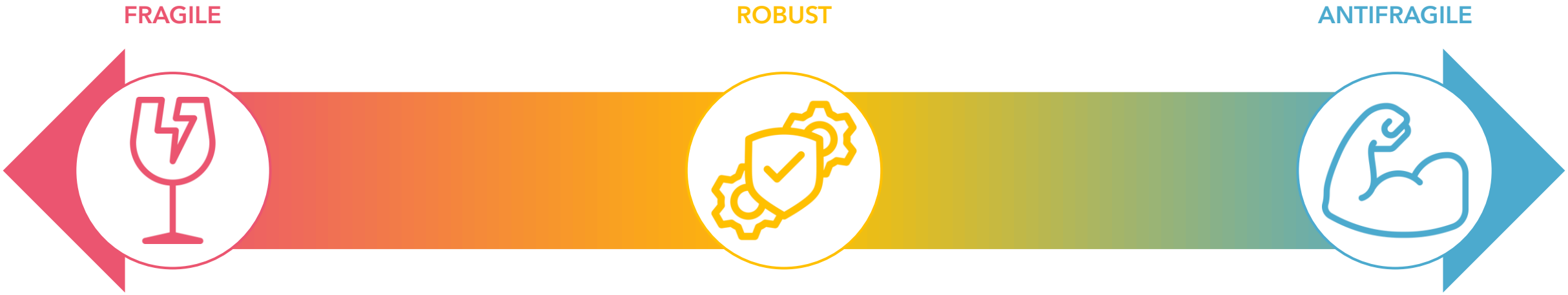
It is also worthwhile bearing in mind the work on fragility (Taleb) when considering RRR

A Spectrum of Response to Stress



Breaks under stress

e.g.,

- **Glass**
- **Over-leveraged financial systems**

Withstands stress, but does not improve

e.g.,

- **Rock**
- **Traditional risk management**

Gains from stress and uncertainty

e.g.,

- **Muscle tissues**
- **Evolutionary systems**

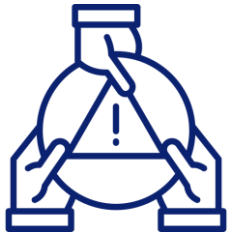
Taleb, N. N. (2012) Antifragile: Things that gain from disorder, Random House.

There is a sensible approach is to build antifragility into our organisations, teams, and indeed personal lives

The concept of antifragility can be applied to systems through a series of principles

Optionality

Seeking situations / approaches that allow choices, and flexibility can enable you to exploit favourable opportunities, while mitigating harm



Skin in the Game

Decision-makers should have personal exposure to the risks and rewards of their choices

Barbell Strategy

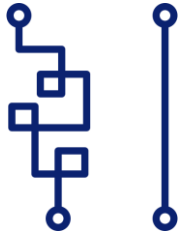
Taking a pragmatic approach with the bulk of a portfolio provides a safety net to go after high-risk, high-reward opportunities in a controlled fashion

Decentralisation

Small, loosely connected systems adapt better (and much more quickly) than rigid, centralised ones

Redundancy / Slack

A degree of slack facilitates rapid responses to unforeseen circumstances



Via Negativa

Removing sources of fragility (e.g., bureaucracy, excessive complexity) often strengths a system more than adding new features

Taleb, N. N. (2012) Antifragile: Things that gain from disorder, Random House.

Antifragility has an enormous range of practical considerations

Fragile
(Hates Uncertainty)

- Vulnerable to significant negative effects from uncertainty

Example:

Organisation A:

- Narrow product offer
- Long lead time to bring new products to market

Organisation A is fragile with respect to shifts in consumer demand

If demand shifts away from its current product offer, it has a long period of non-profitability before it can again meet the market

Robust
(Resistant to Uncertainty)

- Minimal vulnerability to uncertainty, but no capability to take advantage of it either

Example:

Organisation B:

- Broad and diverse product offer
- Long lead time to bring new products to market

Organisation B is robust with respect to shifts in consumer demand

If demand shifts away from one product, its other products keep it profitable while it develops a new product

Antifragile
(Loves Uncertainty)

- Able to derive significant benefit (positive effects) from uncertainty

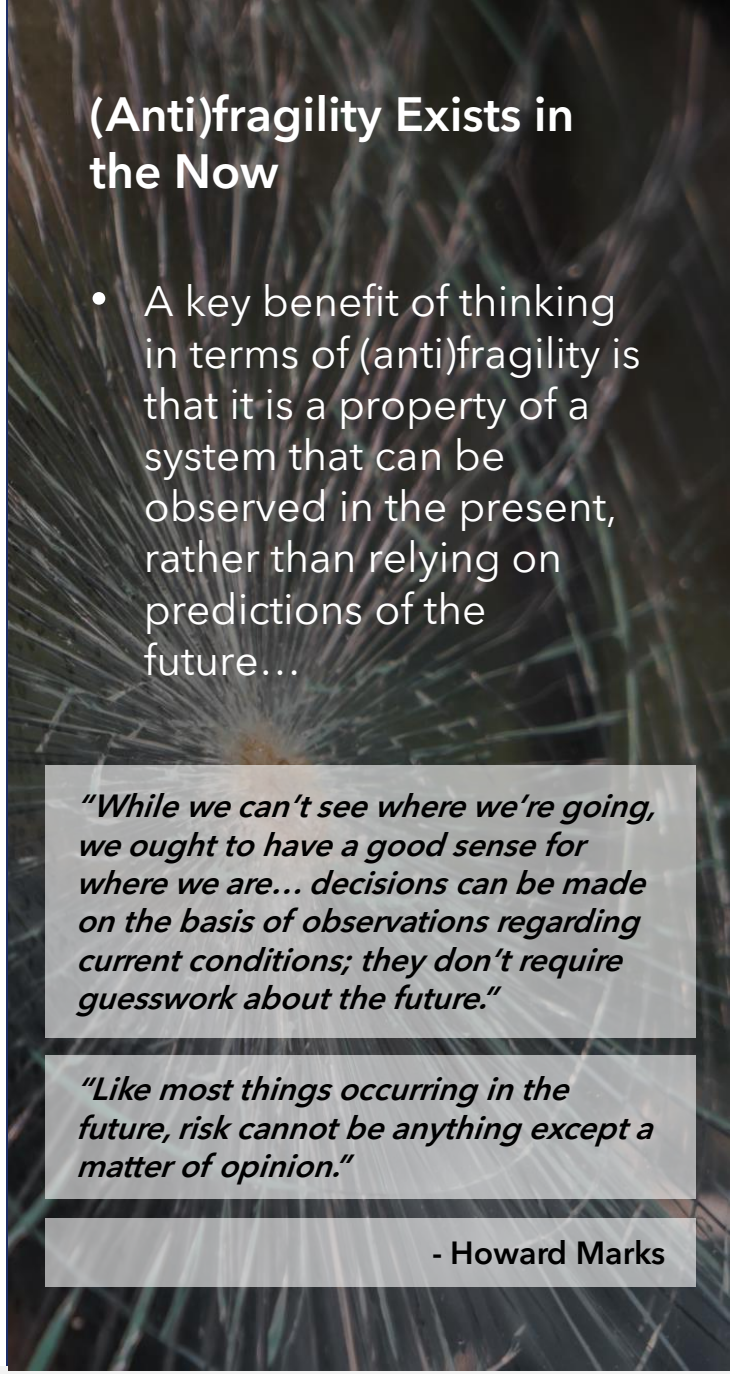
Example:

Organisation C:

- Narrow product offer
- Short lead time to bring new products to market

Organisation C is antifragile with respect to shifts in consumer demand

If demand shifts, it quickly deploys a new product, gaining market share from its less agile competitors



(Anti)fragility Exists in the Now

- A key benefit of thinking in terms of (anti)fragility is that it is a property of a system that can be observed in the present, rather than relying on predictions of the future…

"While we can't see where we're going, we ought to have a good sense for where we are… decisions can be made on the basis of observations regarding current conditions; they don't require guesswork about the future."

"Like most things occurring in the future, risk cannot be anything except a matter of opinion."

- Howard Marks

Getting the balance wrong (and right)

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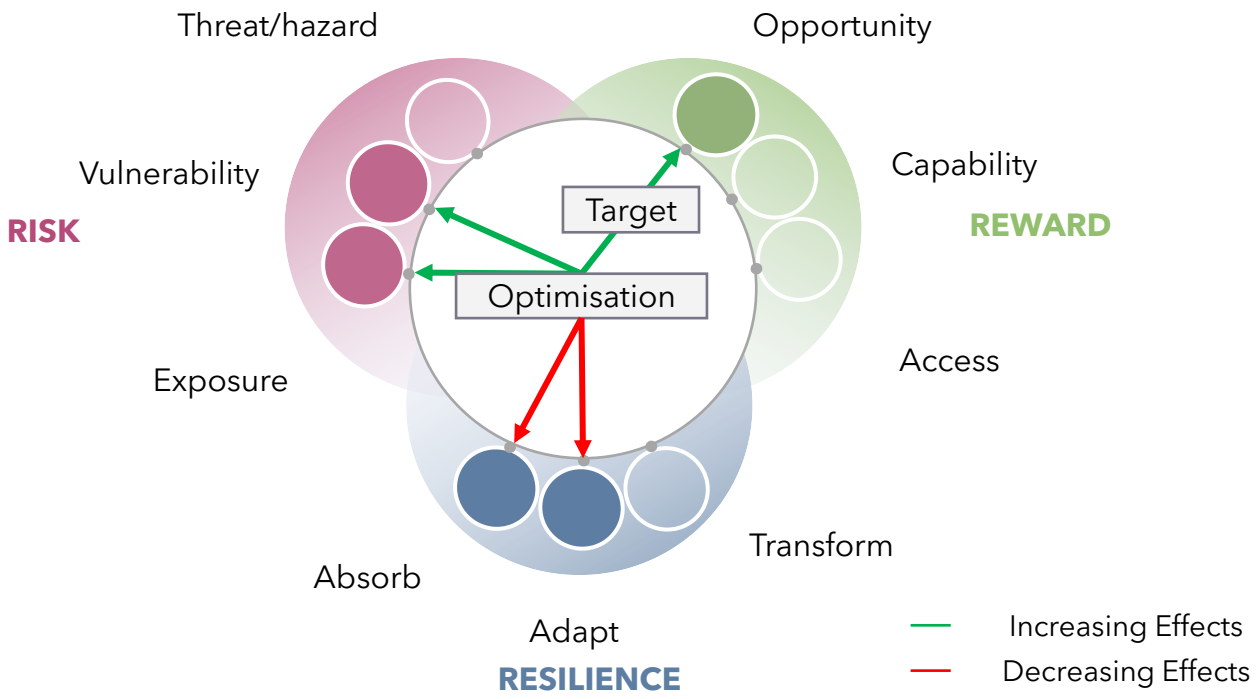
Over-optimisation can introduce significant risk…

- A global manufacturer optimises its supply chain for maximum efficiency, sourcing all its components from a single supplier in a country due to lower costs and strong trade relationships
- This strategy ***maximises reward*** (cost savings, economies of scale, and production efficiency) but ***introduces significant risk*** (exposure to geopolitical instability and supply chain disruptions)
- This approach does not consider the ***neglect on resilience***, as it lacks redundancy and alternative supply channels

Potential consequences

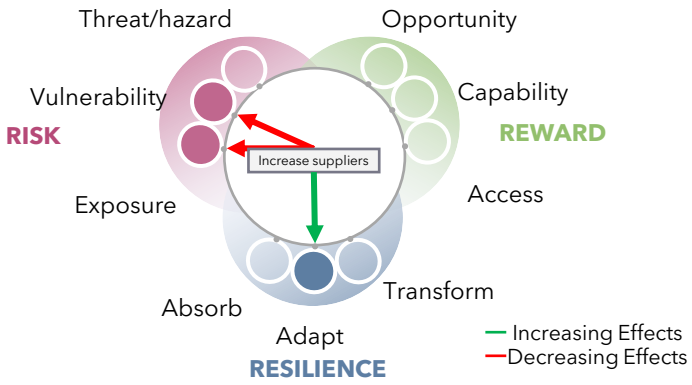
- If geopolitical tensions escalate and a trade embargo restricts exports, the company would be unable to source critical components
- Production would grind to a halt, revenue would plummet, and market share is eroded as competitors with diversified supply chains capture demand



Diagrams adapted from 'Roberts, A. (2020).'

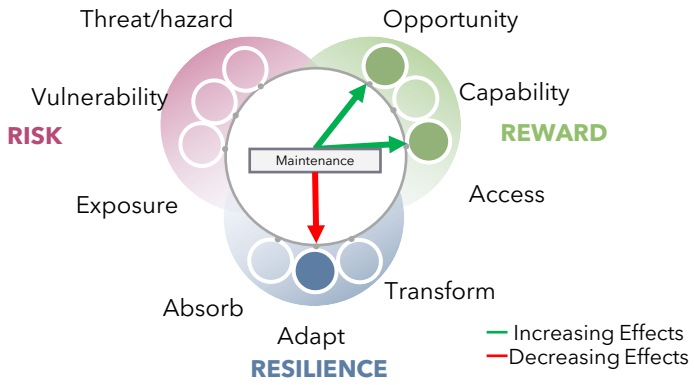
…however, it can be rebalanced through Roberts' RRR framework

Exposure Reduction



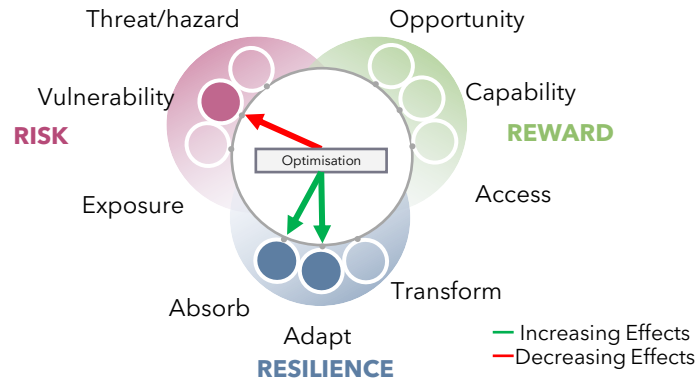
- Shifting from a single supplier to a network of suppliers across different regions reduces overall risk (vulnerability and exposure), while increasing resilience (adaptability)
- Example: Apple diversifies manufacturing across multiple Asian countries

Reward Maintenance



- Negotiating competitive terms across a small, curated network of suppliers across regions increases reward (opportunity and access)
- Example: after geopolitical tensions, Europe quickly diversified energy imports, securing LNG from the U.S., Qatar, and Algeria. Albeit at a higher cost, access was greatly increased

Resilience Enhancement

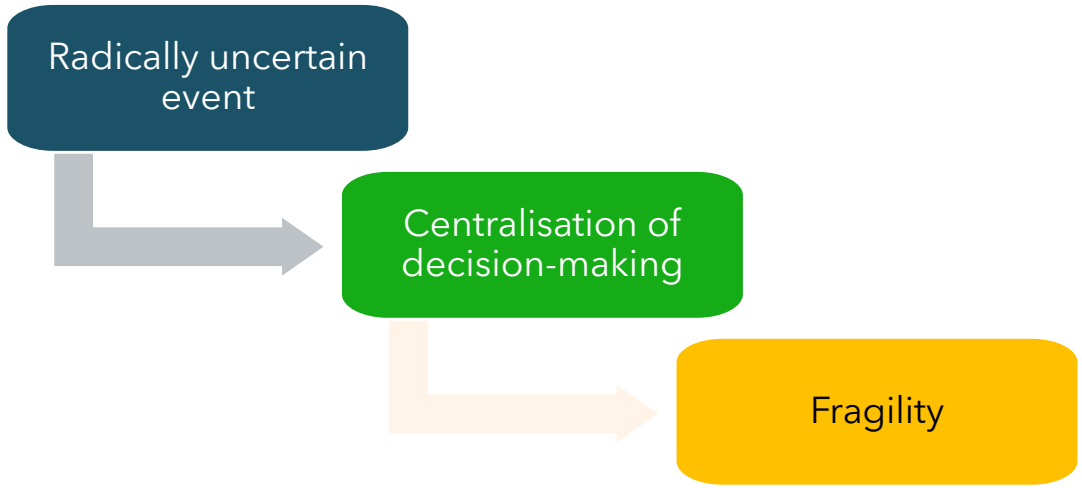


- Increasing absorptive capacity by stockpiling critical components, while enabling quick pivots (pre-vet secondary suppliers who can scale fast), can enhance resilience (absorb and adapt) whilst decreasing risk (vulnerability)
- Example: TSMC recognised geopolitical risks early and has invested in onshore and nearshore production in the U.S. and Japan

Diagrams adapted from 'Roberts, A. (2020).'

Centralisation introduces significant risks…

- A healthcare system responds to a pandemic by relying on a centralised team of experts to make key decisions (border policies, hospital capacities, vaccine distribution). Initially, this helps maintain control, but over time, problems emerge
- Over-reliance on key individuals leads to ***decision fatigue*** as experts struggle to process the evolving crisis.
- Bureaucratic delays emerge as ***rigid processes stifle adaptability*** (e.g., slow vaccine approvals, outdated PPE distribution rules)
- ***Systemic fragility increases*** when senior decision-makers burn out or leave, operations slow dramatically



There can be a rebalance using Taleb's Antifragility framework

Distributed decision-making

- Create local response teams empowered to make **real-time decisions** instead of waiting for central approval
- This decentralisation enables quicker, more effective responses to local challenges, **improving overall agility and reducing bottlenecks**

Invest in people, not just processes

- Taleb warns against "check-box thinking." While SOPs can be helpful in stable circumstances, volatility means it is useful to train staff in **adaptive problem-solving** (e.g., military-style scenario training)
- This prepares teams to **think critically and creatively in unpredictable situations**, fostering a proactive mindset rather than a reactive, formulaic approach

Redundancy in leadership

- Instead of relying on a single decision-making body, implement **rotating leadership teams** to prevent burnout and ensure continuous operations
- This approach also promotes knowledge sharing and skill development, ensuring that **leadership capabilities are distributed for long-term resilience**

Building a Risk Intelligent enterprise

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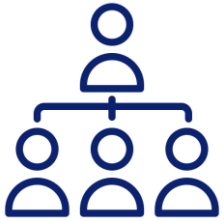
Adaptability is a key element of resilience, because you can account for the new circumstances you face

If you want to improve the adaptability of your organisation, you may have to face some uncomfortable truths…

Sourcing

- Offshored supply chains without redundancies are more fragile



Management Discipline

- Organisations that can make faster decisions in local contexts have the flexibility to adapt quickly to their market context

Financial Structure

- Firebreaks between organisational units are important to ensure that contagion does not spread
- E.g. corporate structures that mean one unit going bankrupt will not bring down the whole enterprise

Information

- The ability to sense changes in markets or other contexts is key
- Adaptive organisations can "smell a change in the air" early

Functional Design

- The "corporate centre" needs to be lean and focused on the allocation of "crisis" resources to the leadership teams that most need it (and can realistically benefit from it)

These attributes can be considered when you review your strategy, business model, and operating model

Zolli, A and Healy A. (2013). Resilience: Why Things Bounce Back, HBR, https://hbr.org/2014/05/why-you-need-a-resilience-strategy-now

Fortifying the organisation essentially gives you time to adapt – but if your enterprise does not adapt it might still be severely damaged in the long run

Fortifying the organisation

- Traditional Risk Planning
- Sense and Respond Systems
- Financial reserves
- Non-financial reserves
- Firebreaks

Increasing organisational adaptability

- Agile organisation model design (a balancing act)
- Sensing, Scaling, Swarming
- Mission leadership
- De-bureaucratised decision-making
- Strategy 1 / Strategy 2 thinking

Source: *Bhamra, R. (2019). Organisational Resilience: Concepts, Integration, and Practice. S.l.: CRC PRESS.*

One feature of a highly adaptive enterprise is the ability to sense, scale, and swarm

Sensing

- Organisations that see the problem for what it is early tend to do better
- For example, Nokia (rather than Ericsson) was the first to recognise the risks in a plant failure in Philips network

Scaling

- Nokia was the first to pull resources off other projects and business lines to solve the problems – even before they knew how to organise

Swarming

- Nokia teams swarmed by building Agile groups to solve different aspects of the problem with Philips resources
- Ericsson was left out and suffered a $2.58bn hit (USD)

Zolli, A and Healy A. (2013). Resilience: Why Things Bounce Back, HBR, https://hbr.org/2014/05/why-you-need-a-resilience-strategy-now

Naturally, leaders play a critical role

They avoid unnecessary fragility by ensuring that processes are properly resourced

Without leadership semi-autonomous teams will become “disconnected”

They are open in communications

Leaders ensure seamless technologies for communication and information flow

They ensure clear roles and accountabilities

They lead scenario planning for “normal’ and “extreme” conditions

They encourage and enable learning

They ensure appropriate empowerment and devolution of responsibility (but not a free-for-all)

Leaders need to think differently about designing the organisation for long-tail events

Build resilience

- Options might cost money, but they increase your resilience (e.g. one company had the options on rental "diggers" at the time of the Brisbane River flooding)

Volatility

- Volatility is good for creating resilience, as it helps us find weaknesses and problems before they become too large. They help us clean out the system (think of small fires preventing a massive forest fire)

Assume the worst is yet to come

- Leaders should assume that there can always be a worse problem than what happened in the past
- (Fukushima was built to withstand the biggest earthquake there had ever been – before the one that wiped it out)

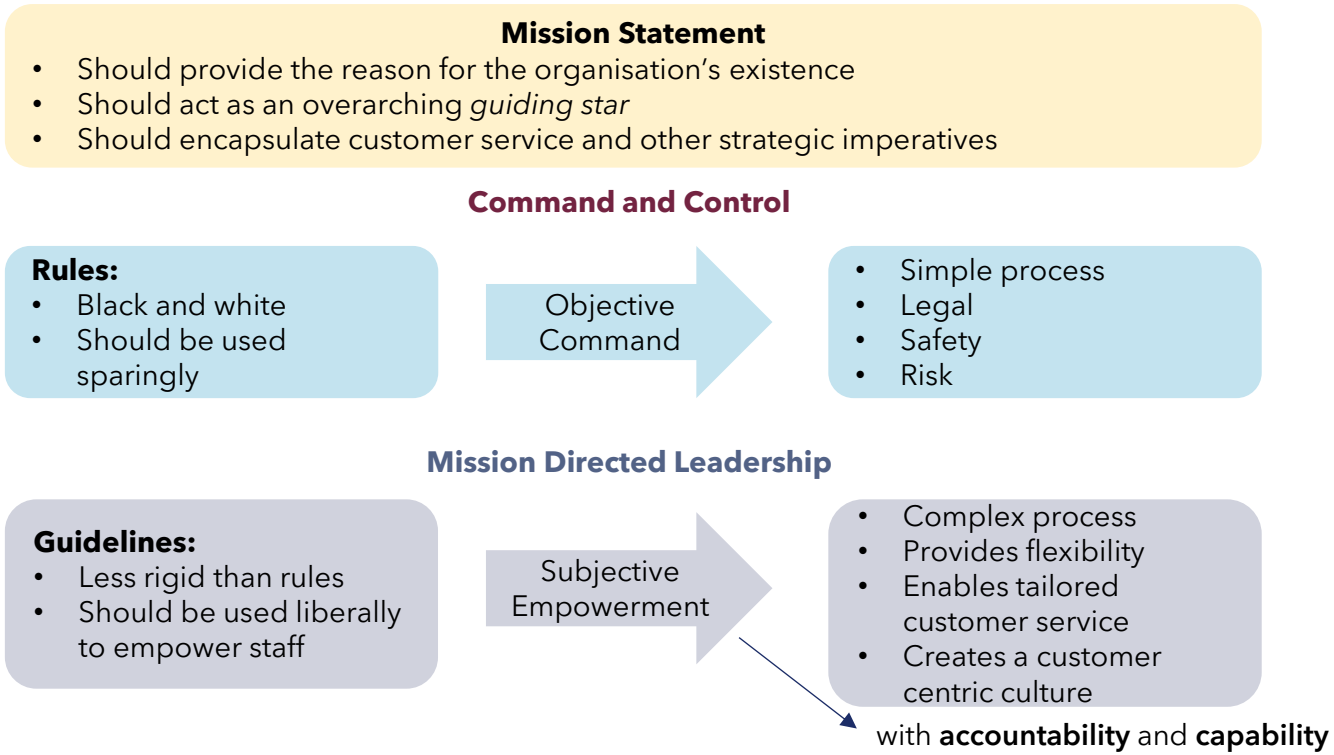
Balance risk and operational efficiency

- This extra strength might at first seem inefficient – but a smart organisational designer can tell the difference between strength and capability to manage, "long tailed risk" vs genuine inefficiency

Trial and error, and ***a willingness to fail***, *are* ***fundamental to our adaptive capacity***

Mission Directed Leadership can empower teams to make the right decisions – this also unlocks meaning and can be used to balance out "over-collaboration"

- ***Mission Directed Leadership models***
  - Leaders are given clarity on Mission, Rules, and Guidelines
  - Leaders adapt by deciding on the best courses of action consistent with Mission and Guidelines without breaking the rules

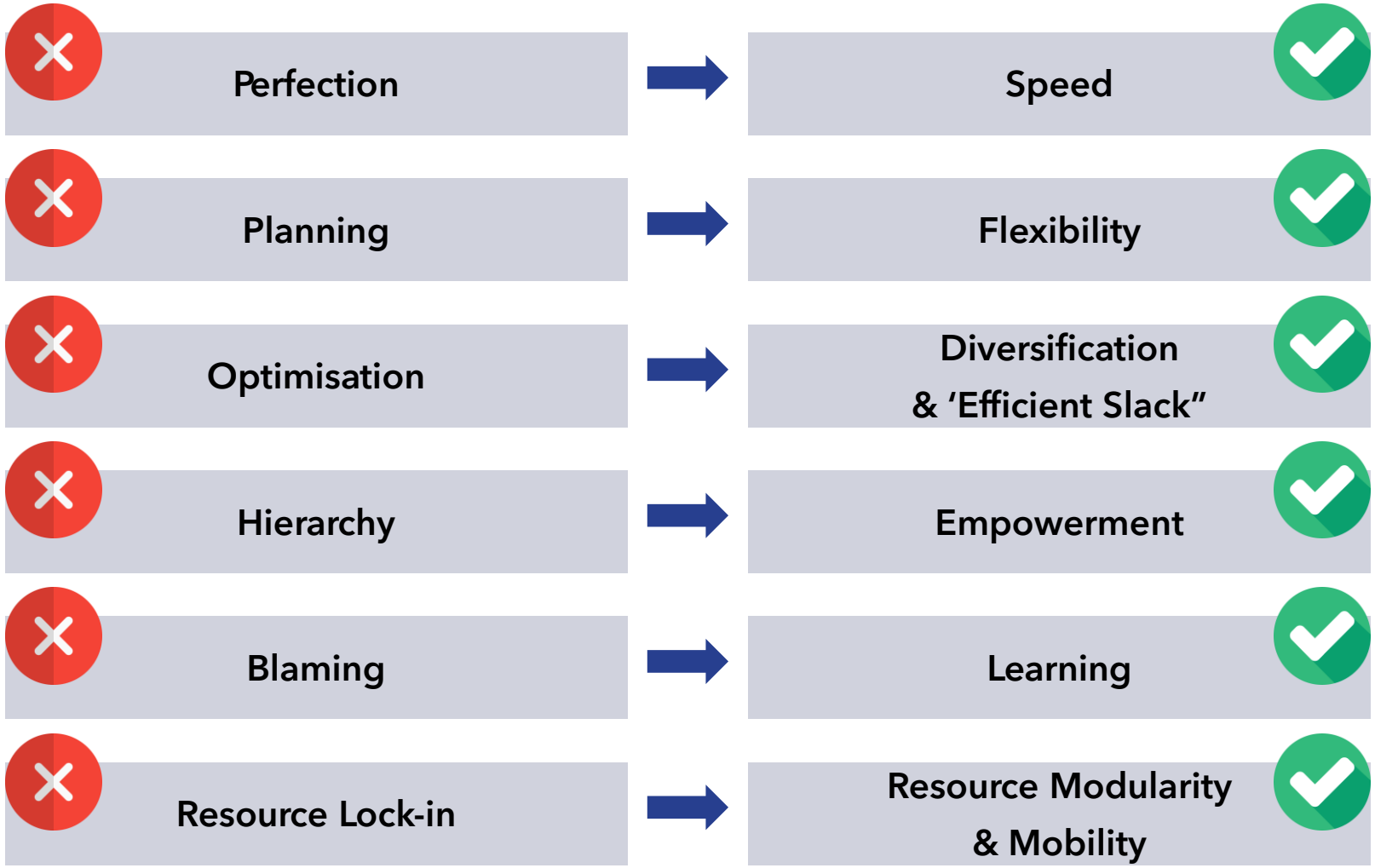


Glenn, R.W. (2020). Trust and Leadership: The Australian Army Approach to Mission Command. United States: University Press OF NORTH GEORGIA.

Key elements of an MDL model

- Ensure staff members understand and buy-in to the "mission"
- Provide a clear decision-making framework (with clear distinction on rules and guidelines, and training)
- Ensure teams have the information they need
- Ensure people have the authority to act
- People have the skills to detect changes in critical systems and processes
- Trust needs to be maintained – transparency is key for this
- Enable staff to grow and develop

You can test your own organisation's adaptive capacity by considering the following



Wade, M. et al. (2021). 6 Principles to Build Your Company's Strategic Agility. HBR.

What does this look like in practice?

- A common and well understood goal
- Transparency about problems and ways of working
- Mistakes are seen as learning opportunities
- A willingness to share the credit and benefits for success
- Speedy and efficient execution of promises
- Strong personal relationships
- Always seeking improvements
- Comfortable with change
- Open-minded but disciplined

Source: *Siemieniuch, C.E., Sinclair, M., Henshaw, M., & Hubbard, E.M. (2019). Designing both Systems and Systems of Systems to Exhibit Resilience. In: Bhamra, R. (Eds.) Organisational Resilience Concepts, Integration, and Practice (pp. 175-198). S.l.: CRC PRESS.*

Cultural considerations can be found in the high-performing teams literature, because culture can naturally be seen in team behaviours

Ron Friedman (2021), found that high-performing teams do 5 things differently:

Call instead

- Pick up the phone
- This prevents misunderstandings and contributes to more successful interactions

Hold purposeful meetings

- Be more strategic with meetings (purpose, pre-work, agenda, meeting protocol)
- Time together is efficient and collaborative
- Unnecessary meetings are avoided

Build connections

- Invest time bonding over non-work topics

Express appreciation

- Give and receive appreciation more frequently

Be authentic

- Be more authentic at work (e.g. compliment, joke with, and tease team-mates – but also free to express frustration)

Friedman R. (2021). 5 Things High-performing Teams do differently. HBR. https://hbr.org/2021/10/5-things-high-performing-teams-do-differently

And, of course, we are here to help if you need it…

If you have any additional questions or require further information, please contact

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This presentation and related articles will be available for viewing at www.bevingtongroup.com

We look forward to seeing you at our next webinar

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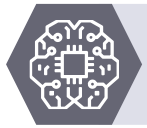
Operating Model Design and Restructuring


Process Reengineering and Automation


Enterprise Digital, Data, and AI


Accelerated Implementation


Change Management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