

ProcureTech Craft

## Addressing risk and building resilience: How to navigate the journey

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#### **Foreword**



Lance Younger CEO and Founder ProcureTech



**Ilya Levtov** CEO and Co-Founder Craft

In a world of ever-evolving risks and an increasingly complex supply chain landscape, risk resilience initiatives need to be more expansive, precise and predictive than ever before.

The technological developments of the next few years promise a completely reinvented approach to risk management, and previously unattainable levels of resilience - if procurement and supply chain teams can commit to the investment.

The Resilience Model provides a comprehensive guide for organisations - of all sizes and industries - pursuing a modern and strengthened approach to risk resilience.

This whitepaper combines a detailed selfbenchmarking framework with best practice guidance, and insights from some of the function's risk resilience thought leaders.

We have explored all of the key topics influencing the resilience sphere, including everything from cross-functional collaboration and stakeholder relationships, to GenAl and the implementation of data-driven decision intelligence.

The relationship between procurement, supply chain, suppliers and stakeholders is at a critical point. It is only by fostering a culture of innovation, collaboration, foresight and flexibility that procurement and supply chain can be successfully future-proofed.

Lance Younger Ilya Levtov

## The state of procurement risk, and defining resilience in the modern age

What COVID-19 demonstrated - more effectively than other similar events - was that all of the systems, plans and thinking that businesses had in place to manage risk and resilience were completely inadequate. Up until that point, procurement and supply chain did not have the right processes, systems, alternate suppliers or infrastructure in place to be able to handle a crisis of either that nature or magnitude.

As a result, businesses, authorities and governments have realised the need to be better prepared. If another existential threat or issue arises in the next few years, then it would be an invaluable advantage to be able to switch on the right systems, and react in a smoother way, which minimises the damage incurred by business operations, its reputation, people, and the environment.

In procurement and supply chain, risk resilience can primarily be understood in terms of events. As such, the risk landscape can be viewed and treated as the likelihood that an event will occur, and then the impact that the event has.

While this precedes the COVID-19 pandemic and global conflicts that have shaped recent years, it has certainly been sharpened by them.

From global geopolitical issues restricting the supply of goods, to blackout issues affecting data centre services in a specific region and natural disasters, procurement and the supply chain are vulnerable to a huge breadth of hazardous scenarios.

Procurement and supply chain teams have to consistently assess how they, as a business, need to react to foresee those risks before they happen, and ensure they are as resilient as possible for the 'worst-case' eventuality. This means continuity of supply needs to be secured, backup plans need to be implemented, and the organisation needs to be able to mobilise in a smart, flexible way.



#### Why COVID-19 continues to define the function

The last few years have made it all too evident that challenges are only going to get more complex.

It's hard to overestimate the extent of the upheaval that COVID-19 created within the function. But, with the benefit of hindsight, it is clear to see how big shocks like these are often one of the most effective and efficient ways to not only drive long-required changes, but also to help businesses realise the real value of their risk and resilience initiatives.

Today, procurement has secured its seat at the table and is operating with a different mindset and way of working. Risk and resilience are being posited as paramount priorities, which means they are finally receiving genuine focus, investment and innovation. After all, the pandemic exposed the entire function's vulnerabilities under an extremely harsh spotlight.

## How can we expect the risk and resilience landscape to evolve?

Since 2020, there has been far more focus, innovation and investment granted to risk management as an area.

We are currently three years into the trajectory that COVID-19 propelled us onto, and today, procurement is developing its resilience strategies at a rapid pace. So, in a further five years' time, what can we expect the end state to look like?

In terms of data aggregation in particular, there's still a long way to go. Supply chain mapping - illustrating the source of supply, understanding how it all interlinks, flows, and returns to create products and services - needs to be advanced. In parallel, far more transparency also needs to be unlocked in these areas as, for many industries, the required level of visibility is still not there.

If teams can map the end-to-end supply chain and unlock greater transparency, they can interpret where all the risks are present. Then, with greater regulations and emphasis on this approach, transparency (and the strengthened state of resilience that it facilitates) will naturally continue to increase over the next few years.

#### Fewer than 1 in 10

procurement professionals have secured a digitalisation level of 81-100% for their third-party risk management capabilities.

Once a complete understanding - from source all the way through to the consumer - is gained, procurement and supply chain can start to automate as many decisions as possible.

Ultimately, there are simply too many risks to attempt to plan for every eventuality. So, the question should instead be: how do we prioritise the risks that are present in a smart way?

This involves determining how we can get the right alerts or notifications that drive the best proactive actions, and how we can then use these to develop resilience to the largest or most damaging risks.

At the moment, there are still a lot of manual workarounds, modelling and analyses that have to take place to achieve that best-fit, long-term resilience. But with AI, machine learning and the right data layer on top of those technologies, we can start to develop an engine that is far more proactive and sophisticated with its targeted risk alerts.



# Reimagining risk and resilience with future-thinking approaches

In the very near future, procurement and supply chain can expect AI to bring about a complete overhaul, reshaping the way that we approach everything from the most mundane of daily admin tasks, to how we define, predict and navigate the global landscape of supply chain risks.

For instance, in our recent survey of procurement professionals, 44% want current technologies to feature a broader embedding of GenAl, and 39% state that GenAl will have a major impact on procurement within the next three years.

When a strong foundation of supplier risk data is in place, procurement and supply chain teams should use AI to amalgamate huge swathes of data, contextualise it, and turn the data into something tangible, almost instantaneously. For example, AI allows teams to identify which suppliers need to be critically assessed, as the data reveals that they are at a high risk of going out of business, or that they are in a location which is at a high risk of war or disruption. In these and many more instances, AI can be used to determine the most effective courses of action to take, at any given moment, to strengthen your supply chain. In fact, AI can help bring the 'best' decision directly to the end user, applying a conversational lens to these large, data-intensive systems.

GenAI has the power to instantaneously provide the context, and dramatically simplify it, in a way that the end user can understand, and therefore use it accurately. While this presents just one of the many use cases for GenAI in procurement risk management initiatives, these technologies are set to make the entire process far more seamless, intuitive, efficient and accurate.

## Streamlining and strengthening cross-functional collaboration

But, of course, technology can only take us so far. Although technology, intelligence and workflows unlock extraordinary new capabilities, they can never be used to their full potential without strong, crossfunctional collaboration and alignment within an organisation.

Cross-functional collaboration is a fundamental component of establishing a strong resilience framework model within an organisation. However, old-fashioned approaches are currently defining many businesses' risk management processes.

Traditionally, in these old-fashioned approaches, risk has been largely siloed. Risk management typically exists as a distinct function within the business, which understands, manages and mitigates all the specific risks that an organisation is interested in.

Looking to the future, resilience as a concept must be more ingrained in the day-to-day jobs of everyone in the entire procurement function. Indeed, it will become more ingrained with the majority of employees in the organisation as a whole.

Responsibility for risk and resilience will not only become broader and more sophisticated, but it will also become the remit of a far wider range of individuals. Naturally, this will become a requirement for procurement, finance, sales, operations and supply chain teams, which will then need to consistently communicate and collaborate. As new and more sophisticated risks continue to emerge, this approach will soon prove critical and, in leading organisations, risk resilience will increasingly move from a specialisation to a core competence.

This represents a significant shift in ways of working. Rather than relying on a single risk function to handle those threats, businesses will need to put a system in place that drives more consistent and strengthened collaboration. In doing so, businesses will be in a position to react quicker in the event of a threat, and even preempt threats, as their internal talent can be mobilised and utilised to address all the different concerns that are raised.

"One of the most fundamental things that companies need to understand is that there has to be a depth and breadth approach. If you have 20,000 suppliers, you cannot have the same level of coverage for all 20,000. You need to have some kind of breadth, but then you need to understand, and have a logic for, where you go in-depth."



**Craig Moss**Director, Data and Change Management, Digital Supply Chain Institute (DSCI)



## Digitalisation: the new foundations for risk management

The current risk, compliance and resilience landscape is unlike anything that teams have encountered previously. Technology's pace of change has led to an additional proliferation of risks and possible threats.

Beyond the traditional threats of supply chain disruption, government policies, inflation and recession, procurement and supply chain teams now also have to navigate the ominous developments of cyberattacks, data breaches, malware, ransomware and IoT vulnerabilities, among many more.

These threats are proving to be critical drivers towards investments in digitalisation, and a key marker of the value of improved decision intelligence.

Recent research, undertaken by ProcureTech in 2023, revealed that 77% of procurement leaders say data-driven decision intelligence has positively impacted their organisation's ability to react to the rapid changes in the market. Furthermore, 76% of procurement professionals are investing in decision intelligence to secure their supply, and 64% are doing so to improve their transparency.

The link between improving internal and external data and strengthening risk resilience is becoming increasingly apparent. So much so, that decision intelligence is now seen by many as the cornerstone of an informed, flexible, agile and transparent function.

The evolution of the data fabric and analytical capabilities is difficult, resource-intensive and requires investment. Aggregating, visualising, and then applying decision intelligence to external, internal and nth tier data are at the core of having a more strategic impact on the business.

## Learning from past events, and understanding future resilience trends



Elvire Regnier
Former Procurement
Executive, Colgate Palmolive
and Unilever, and Craft
Board Advisor



**Arun Kumar**Global Lead for
Supply Chain Excellence
MTN

In conversation with Arun Kumar, Global Lead for Supply Chain Excellence at MTN, and Elvire Regnier, Former Procurement Executive, Colgate Palmolive and Unilever, and Craft Board Advisor, the discussion included the trends and challenges for future resilience, how businesses can learn from past events, and the ongoing influence of global and macroeconomic factors.

#### Predictions for the hurdles set to emerge

Within the next 5-10 years, Regnier explains that the core areas of organisational risk and resilience management can be broadly understood as reputational and financial.

Reputational risk - which encompasses corporate responsibility reporting and due diligence - is reaching a critical point as, with consumers and businesses reaching new levels of environmental education, organisations have to be far more careful about both their claims and their current behaviours.

Many companies are not sufficiently careful about what they do or say, and we are seeing frequent cases of greenand rainbow-washing. Alongside this, with AI dramatically increasing the volume of information that is available and the ease with which it can be accessed, it is becoming far more difficult to hide.

Regnier elaborates that the 'old guard' do not always have the right attitude in terms of ESG. This has been exemplified by the numerous scandals arising over the years. That old guard is trying to survive and continue with business as usual, while we're simultaneously seeing the growing inclusion of women and minorities in organisations. She clarifies that we are at the end of a cycle where those old behaviours are tolerated, but that we aren't quite at the start of the new cycle yet.

That in itself poses major risks to companies, and is often overlooked. The teams who think that it might be okay, or that people won't notice, are taking substantial risks, often underestimating that companies can, and do, disappear due to scandals.

"We built an approach where, literally every month we set out clear recommendations to the people that we manage, and followed that up with a very strong support systems landscape... And that is how we prove our benefit to the organisation."

Arun Kumar

#### What can we learn from the COVID-19 pandemic?

At the onset of the COVID-19 pandemic, Kumar describes how MTN built a framework that would give them a greater understanding of how best to 'defend their demand', while integrating the data of their suppliers, to access greater visibility within their supply chain.

However, building a framework is not enough as the risks are still happening, and each individual country or vendor has its own risk profile. That necessitated a matrix approach.

The MTN risk matrix was developed using a combination of asking direct questions to the vendor, reviewing risk profiles from various other international sources, and the interrelationship of all of those elements, to gain a cross-industry view of the businesses.

MTN then took that framework to the board, which Kumar used to make a proposal: they will frequently and regularly face new risks. Instead of asking what the response to each individual risk will be, or if the risk is being considered, they can track and manage all of them in a risk database.

With this database and framework, they have a fixed approach for each risk, with clear recommendations for the relevant teams. This prevents inefficient processes where the team needs to urgently go to the board every time a critical issue arises.

The proposal convinced the board, leading to MTN completing the framework. Now, its teams don't have to manually dig into their entire supply chain to find out which semiconductor chips are affected, therefore which products are affected, and which supply chain elements are going to face a risk.



Even following the COVID pandemic, the current global landscape - where more and more geopolitical crises are occurring at shorter intervals - means that supply chains need to be prepared to absorb disruptions and mitigate new circumstances as they emerge.

When taking our learnings from the pandemic, and using them to establish future resilience, information and communication stand as the two key pillars.

Al and comprehensive supplier risk data will be instrumental in giving organisations access to larger pools of information, and equipping teams with greater foresight.

Building on that, consistent and strengthened internal communication will drive the collaboration, innovation and harmonious approach necessary to adapt to turbulent or unanticipated scenarios.

Regnier provides an insight into how, at the height of the pandemic, she established a 'war room' to alleviate the pressure on her team, and expand the navigation of major price increases out to her colleagues in finance and production.

During the war room sessions, everyone reviewed the price increases from the previous week, assessed the global situation of the current week, roughly calculated the impact it would have on the margins, and then decided together whether to accept the increase, or identify a backup solution.

This approach alleviated the pressure Regnier's team was under, while also ensuring they were able to discuss the situation with their suppliers, as they knew they had the support of both finance and operations. The war room was an opportunity to communicate and to ensure that procurement is truly a part of the network of people who make the decisions.

Although this was an approach that was adopted simply to manage the crises of COVID, Regnier explains how it remains equally applicable to current situations.



"I know it's difficult, but certainly companies are not good enough in maintaining good habits. They try to go back to the old, vintage methods. But to me, that's not working anymore."

**Elvire Regnier** 

Involving stakeholders in meetings with the buyers and suppliers is key because, by only establishing communication channels between suppliers and buyers, the relationship is bottlenecked. The more exposure stakeholders get to the relationship with a supplier, the stronger that relationship becomes as it is not just between two departments. It is now between multiple departments, which allows for real value creation.

Finally, partnerships with suppliers need to be viewed as valuable assets in terms of risk resilience (not just cost savings).

Partnering with suppliers means respecting them, and not only when there is a crisis. Regnier emphasises that you need to prepare for a crisis with your suppliers. That means working together with them to anticipate what's going on and to work to establish the best relationship you can have with them, so that the suppliers are on-side when the crisis does occur.

Regnier summarises her thoughts by conjuring up an image of a stool, explaining that you have three legs: a buyer, supplier, and stakeholder. If one of these legs is missing, the stool tips over. You need to have the three working together, building your process around a partnership programme, to ensure all three of them are involved.

## **Building resilient supplier relationships**



**Joseph Martinez**Chief Procurement Officer
BNY Mellon



Gary Lock
Director, Global
Head of Third Party
Risk Management
Fidelity International



**Travis Johnson**Sr. Director
ISM Procurement &
Technology Enablement
Walmart

"One of the best practices is making sure that you have a clear statement – that is going all the way up to, or actually coming down from, the board and executive management – about your risk appetite."

Joseph Martinez

## Across all elements of procurement, building risk resilience starts with implementing a comprehensive model.

Joseph Martinez, Former Chief Procurement Officer at BNY Mellon, explains the importance of ensuring that the board is confident that procurement has a robust risk management operating model in place. Then, procurement and supply chain need to be able to prioritise and set their risks for that.

However, critically, the first steps towards creating the necessary strategies and frameworks require procurement to determine its company's risk appetite level, around which they can then structure their programme, and weave it into the company's long-term strategy.

From there, Martinez explains, procurement can start to identify methods of improving and strengthening the risk culture, and integrating resilience into the strategy process, so that resilience is established into the future, for all activities.

Once a knowledge of the company's risk appetite is secured, procurement should work to gain a comprehensive outlook of its suppliers, and carefully assess the relationship that it has with them.

Travis Johnson, Sr. Director ISM Procurement & Technology Enablement, Walmart, adds that procurement needs to pursue a 360° view. This can be defined as a comprehensive understanding of the supplier's finances and financial well-being, plus their supply chain and its well-being, alongside real-time news alerts.

Then, these external factors can be supplemented with a company's own internal risk assessment of the supplier. This exists as a standard scorecard, with a score being assigned to each Tier 1 and Tier 2 supplier on a regular basis, and the process being strengthened into the long term with ongoing SRM.

## New approaches to supplier scoring systems and alerts

When it comes to managing supplier risk, a common practice adopted by procurement is to use a system of alerts, to notify them of an issue with their supplier. However, a best practice approach goes beyond this more rudimentary system of notifications.

The best practice for this system of alerts involves sourcing professionals being alerted through different types of communication and engagement.

Johnson asserts that a chat-like interface would be the most effective solution, as most current technologies tend to simply alert users through either email, or an application that they have to log into. However, due to the overwhelming volume of micro-services and micro-applications that users have to log into, it's not inviting to enter this additional tool. What's more, more than 200 emails a day is a common occurrence amongst procurement professionals and stakeholders. So, he predicts that a new tool will emerge that can notify users through Zoom or Teams, or a home-grown chat interface that users are already regularly in and are used to paying attention to. Then, the notification guides them to exactly where they need to be, in order to make a decision or complete an action.

Although this will create a far more personalised, user-friendly alternative, this approach requires the management of huge volumes of data, which would be too large for even a whole team to be able to digest and use meaningfully.

As a result, the support of technology will prove critical here, particularly with advancements in large language models and chatbots. They will be able to disseminate information at a rapidly accelerated pace, then create nudges that direct people towards meaningful actions, immediately after the threat is identified.

The nudges should take the users through a process of leading them to the right application, directing them to the right areas to give their attention to, and then allowing them to continue to chat with the tool, which will then lead them to what needs to be done, in order to provide the corrective action.

"If you have a solution that provides you with visibility of the risk, then it should also allow you to input corrective actions - along with dates and reminders - to ensure that the appropriate follow-up is in place to address it. Then, if those nudges occur again, confirm that the mitigation plans are enacted."

Travis Johnson

## Establishing supplier performance as a risk resiliency KPI

Existing as part of the organisation's wider risk assessment, these reviews help procurement to understand the resiliency of its suppliers, and whether they have sufficient provisions and measures in place to accommodate their risk appetite.

To assess suppliers - and then use this assessment to determine the organisation's total supply chain risk performance - clean, accurate and real-time data is critical.

Many experts assert that supplier performance metrics are amongst the most useful KPIs for measuring the effectiveness of resilience programmes.

Gary Lock, Director and Global Head of Third-Party Risk Management at Fidelity International, explains how, by leveraging real-time data more effectively, procurement can monitor and utilise the share price of a supplier. If suppliers are on the open market, then this metric offers a very strong indication of whether something has gone (or is going) wrong with a particular supplier. This is because a falling share price could be caused by a number of triggers - such as company reputation, or a news story about the company's owner - but it offers these insights in a way that is both live and real.

"What you're doing is trying to strengthen the organisational health and behaviours through knowledge sharing, by conducting bottom-up reviews, and by enhancing the contributions that each of the different stakeholders are providing into the overall process."

Joseph Martinez



Then, alongside the security of the suppliers' financials and reputation, Lock and Johnson state that supplier innovation itself can also present an equally valuable KPI for developing an organisation's risk resilience.

"I think that helps as an indicator of resilience, because it shows that our suppliers are equally being critical and curious about improving processes. This is great, because we want to work on innovation together, as partners."

Travis Johnson

Lock explains how supplier innovation often speaks to the way in which a vendor is working with a company, as it demonstrates that the supplier has an appetite for the relationship, and fosters a strategic relationship that is two ways. Equally, if they're not bringing ideas to the table, then it's unlikely that they're a partner that is willing to invest in the company or relationship.

## Securing alternative suppliers, without compromising relationships

The ability to secure alternative suppliers is, of course, a crucial component of any strong resilience strategy. However, it is inevitably challenging to achieve this whilst maintaining strong and consistent relationships with your core suppliers.

Although, from the perspective of risk resilience, a white list for all your critical suppliers would be invaluable, commercially, achieving this can prove to be challenging. With this approach in place, it would be far more difficult to get deals with suppliers over the line. However, Lock asserts that despite its difficulties, there does need to be some balance in the way that procurement approaches this.

The building of effective, future-proof and risk-resilient approaches to SRM can be fuelled by collaborative innovation.

If a relationship can be established where procurement and its suppliers are talking about innovation and risk in the supply chain on a regular basis, then this collaboration will naturally become far more resilient.

By embedding this and the associated metrics into the relationship, should an emergency event arise, more mindsets will be working on how to resolve the situation. In fact, Johnson asserts that procurement can quickly reach the point where suppliers are perceived as an extension of the internal team, who add valuable guidance on the best corrective actions to continuously improve both parties' resiliency.

"We're learning that sourcing teams are being brought more into the risk programme, and are understanding resiliency. So, from a category strategy perspective as well, they're starting to bake these resiliency considerations into their strategies and contracts."

**Gary Lock** 

## What defines deeper resilience?



Mark Hunt Commercial Operations Director for Procurement Mars



Michael Corbo
Former Chief Supply
Chain Officer (Retired)
Colgate Palmolive,
and Craft Board Advisor

"The use of data intelligence, the deployment of AI, and the need to strengthen collaboration are consistently seen as primary requirements for deep, flexible and futureproof risk resilience."

Lance Younger

#### Predictive data intelligence

Best practices and innovative approaches to risk management cannot be achieved without data that is up-to-date and accurate. The events that have disrupted the decade so far are going to continue occurring, and many of the experts involved in contributing to the risk model believe that they will happen at a faster pace than we've ever seen before.

Using data, organisations can gain an understanding of the trends affecting their operations, both internally and externally. But, without gathering, fixing and correctly utilising data, companies are left stranded.

Mark Hunt, Commercial Operations Director for Procurement at Mars, explains that a common problem within procurement is that teams are predominately very internal-looking. So, this means that a best practice approach - and one which procurement broadly needs to evolve - is to look beyond, considering what the industry will look like in 15 years.

So, if a team gathers together and carefully evaluates the data and year-on-year trends of the environment that they are operating in, where do they anticipate that they will be sourcing their materials in 15 years' time?

"All of those things are unpredictable. But, I don't see a lot of that happening, and it'd be great to see that. And, how far out can you look? We really struggle with that approach, but I think that's where data could be a game-changer."

Mark Hunt



"In the past, we never would have looked at those kinds of things, and it uncovered a great practice to start adopting, because it really gets everybody thinking."

Michael Corbo

Michael Corbo, Former Chief Supply Chain Officer at Colgate Palmolive and Craft Board Advisor, outlines how, in one example, his team conducted an analysis of the finite mined materials that were used in their product range.

His team discovered that one of the main materials that they use in their products is phosphate. At the current pace of being mined, this is predicted to run out in 20 years. So, they sought to develop and implement the best plan to mitigate this change in the present, so that they could slowly get out of this situation, and reduce their exposure to this future risk.

This is a proactive process: going beyond treating the inherent risks within your organisation and current operations, to predicting and preparing for the future risks that are going to happen, and leveraging clean data to create simulations that will help you achieve this foresight.

Adding to this, Hunt explains that a truly advanced, resilient organisation will be able to look at those faint signals, amplify them, assess them and then determine whether the warning that they present should be part of their resilience strategy. By being able to identify those faint signals, procurement teams can focus their approach, identify the most effective places to direct their resources, and secure a more advanced degree of long-term resilience.



"Across global organisations – not just within procurement and supply chain – the digital mentality of using AI is not yet there."

Arun Kumar

#### Laying the foundations for Al

Advancements in AI technologies can dramatically strengthen risk and resilience strategies, by enabling organisations to predict and proactively address the future challenges that they face.

However, successfully adopting these technologies requires comprehensive training about their safe and effective usage. Without this education, professionals widely struggle to properly leverage AI (for example) when it comes to choosing the right prompts that result in an intelligent answer, which is suited to the complex nature of the function and industries.

Kumar explains how, although the majority of people in his operation use ChatGPT in some form or another, they are still predominantly using it for very rudimentary activities. So, he asserts that greater investments in education are needed on this front.

Across global organisations - not just within procurement and supply chain - the digital mentality of using Al is not yet there. According to Kumar, this is largely because people are using it for purely basic tasks, such as automating the writing of generic presentations, sales pitches, or social media posts.

While people are using various advanced technologies in their daily lives, the successful adoption of AI requires the users to be agile themselves. Users need to not only be willing to research and learn about best practice usage of the digital solutions but, since the technologies will advance at a rapid pace, they will need to continue this commitment to learning into the long term.

However, the moment people are asked to use GenAI to create complex pieces of information, the issue of digital literacy on the ground becomes apparent.

Digital literacy is the ability to be adaptable and resilient in adopting these technologies, and that is an advantage that most procurement teams are missing right now. Although people started to learn in the early days of the GenAl hype, more work needs to be done to encourage further curiosity.

"The GenAI knowledge gap is huge, at least when it comes to applying a variety of use cases... to be technically resilient means understanding what are the technologies that are coming up, and being one step ahead. Reading up on it and being ready for it."

Then, once this education is implemented and the curiosity sparked, organisations can start to see the real power of GenAl.

Arun Kumar

For instance, procurement is eagerly anticipating the deployment of the predictive capabilities of AI, particularly in the pursuit of using supplier risk data to achieve next-level resilience. Experts anticipate that the next few years will bring about digital solutions with the capability to - rather than just shine a spotlight on a problem - tangibly connect the dots, bringing together numerous different data sources to create a real-life, probable scenario, which is worth actioning.

But, while there are certainly exciting times ahead, the training and knowledge gap must first be addressed.



## Encouraging resilience mindsets and fostering collaboration

Beyond next-generation technologies, organisational culture plays an equally pivotal role in building resilience, and a company-wide resilience mindset requires a consideration of numerous cultural elements.

Organisationally, a discipline of - not only a policy of - tracking, reporting and following up on the investments that are driving resilience have to be part of a company's every day.

Hunt adds how, by encouraging this mindset, organisations can more effectively establish a grounding which sees resilience bedded into not only objectives and targets, but the approach that individuals take to all of their daily tasks.

Often, in core teams, the risk resilience culture and mindsets are largely reactive. While teams do a great job of fixing an issue when it arises, developing procurement teams' abilities to be predictive and proactive is a far greater challenge. In fact, Hunt asserts that - in the pursuit of this critical mindset - he believes that an audit culture needs to be embedded, and applied to resilience specifically.

"Our biggest challenge at the moment is that you can have processes and you can have policies, but you also need the mindset to think about whether or not that happens. Have we got a clear business continuity plan to deal with it? Have we got a clear identification of the information we need? What are we doing to continuously monitor and check and track how that could change?" – Mark Hunt

## Then, embedding that culture within the rest of the organisation unlocks equally significant value.

Although companies are at a peak of understanding risk resilience (and people are now finally listening), the concern is that, if circumstances start to stabilise, will their priorities focus on growth projects?

Optimised, best-in-class resilience requires continuity. Both the process and mindset need to not only be embedded in processes, but people throughout the organisation need to see a value in it, and celebrate when an issue is presented (rather than just celebrating when an issue that has emerged is resolved).

Advanced, best-in-class resilience requires continuity. Both the approach and mindset need to not only be embedded in processes, but people throughout the organisation need to see a value in it, and celebrate when an issue is prevented (rather than just celebrating when an issue that has emerged is resolved).

Then, once this culture is established (and everyone understands just how important resilience is), people start asking questions that they didn't ask before. It's when this culture is implemented that you find that people start to uncover new things, and the mindset fuels consistent questioning, which actually in itself makes companies more resilient.

According to Corbo, achieving this requires procurement to go through all the challenges of communicating resilience goals to the entire organisation, and making it clear that they are everyone's responsibility. Then, although the results of the first year may not generate the greatest return on investment, attention needs to be firmly focused on continuous improvement.

"We made everybody train for it, in effect. I think you have to accept that overnight it might not be perfect. But, I think in today's world - after what everybody went through - you'll get better a lot quicker," Corbo states.

## The Resilience Model and maturity journey

The Resilience Model is designed by Craft and ProcureTech to embody best practices for agile and proactive procurement resilience, providing organisations with a comprehensive, strategic roadmap for advancement. It is designed to help teams implement more effective ways to navigate the complexities of today's procurement and supply chain environments.

This model takes teams through the entire risk resilience journey, enabling them to assess their position - from establishing foundational risk management policies, to integrating advanced technologies and innovative strategies - and identify the next steps required to strengthen their resilience further.

Firstly, the model follows a structured progression across four key components: **Architecture**, **Assessment**, **Assurance**, and **Adaptability**.

		STAGES			
		Awareness	Stability	Proactive	Resilient
COMPONENTS	Adaptability	Reactive Response	Formalised Response	Agile Organisation	Adaptive Organisation
	Assurance	Periodic Assurance	Continuous Monitoring	Predictive Assurance	Resilience Culture
	Assessment	Initial Identification	Systemic Categorisation	Advanced Management	Strategic Foresight
	Architecture	Basic Policies	Defined Framework	Integrated Processes	Dynamic Architecture

Craft ProcureTech

## The four components of resilience









#### **ARCHITECTURE**

This is about setting up the structural components across internal and external data, analytics, technology, workflows, strategies and policies, for managing third-party risks that form the foundation of the organisation's resilience. It's like the **foundation of a building.** Just as a building needs a strong base to stand on, a company needs solid resilience plans and rules to handle risks effectively.

#### **ASSESSMENT**

This focuses on sensing, interpreting and understanding the risks that the company might face. It's about identifying, categorising and analysing these risks, to know how large they are and how likely they are to happen. Think of it as a **weather forecast**. Just as a weather forecast helps us prepare for the day, this group helps the company understand and prepare for potential risks. It's all about knowing what risks are out there and how to deal with them.

#### **ASSURANCE**

This encompasses all checks and confirmations that the company is managing risks and resilience properly. It involves the monitoring of third-party risks and measuring how well an organisation is following rules and responding to risks. It's like a health plan. Just as regular health check-ups ensure we are healthy and any issues are identified and fixed early, this group ensures the company's resilience and risk management initiatives are working well, then anticipates and addresses any problems before they escalate.

#### **ADAPTABILITY**

This is all about how the company adapts and changes in response to new and evolving risks. It's about being flexible and learning from experiences, to more effectively handle thirdparty risks and challenges in the future. Think of it like using a self-driving car, which can adapt to different road conditions and continuously improve its driving ability based on data. Adaptation helps the company enhance its risk management and resilience strategies, especially when faced with new or changing risks.

In parallel, the model applies progression across four key stages of Awareness, Stability, Proactivity and Resilience.

#### STAGE 1: AWARENESS

At the Awareness stage, organisations are in the initial phase of their risk management journey. This stage is characterised by a focus on raising awareness and establishing foundational elements. Organisations work on building a fundamental understanding of risk management, setting the groundwork for more advanced strategies in the future.

#### **STAGE 2: STABILITY**

At the Stability stage, organisations transition to a more structured and stable phase of their risk management journey. This stage is marked by the consolidation of risk management practices and the establishment of steady processes and governance structures. The Stability stage represents a significant advancement in risk management, characterised by increased stability, efficiency, and preparedness for emerging risks across various domains.

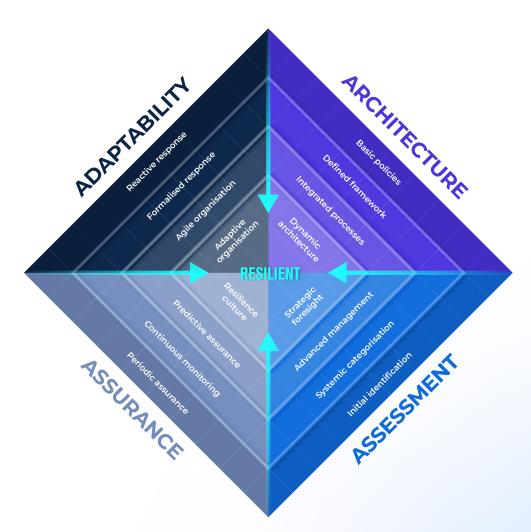
#### **STAGE 3: PROACTIVE**

At the Proactive stage, organisations enter an advanced phase of their risk management journey characterised by proactive and integrated risk management practices. This stage represents a significant evolution in risk management maturity and resilience, and is where organisations proactively manage risks, embrace resilience, and foster a culture of adaptability and collaboration.

#### STAGE 4: RESILIENT

At the Resilient stage, organisations reach the pinnacle of resilience and risk management maturity, demonstrating an exceptional ability to navigate complex risk landscapes with confidence and precision. This stage is marked by the integration of cutting-edge technologies, a strong ethical foundation, and an unwavering commitment to adaptability and innovation.

#### The Resilience Model



As users follow this model, they will progress through the evolution of their organisation's risk management infrastructure. This journey will enable them to refine their assessment and assurance processes, foster a culture of adaptability, and drive continuous improvement.

In the pages that follow, you will explore the various stages of risk management and resilience maturity within each core component. This exploration will offer valuable insights into what it means to operate at each stage of maturity, the best practices to employ, and how organisations measure their performance in this context.

Each stage represents a unique milestone on the path to organisational excellence in risk management, and you will discover how these stages interconnect to create a comprehensive framework for success.

Throughout your reading, you will find navigation links on the lefthand side of each page. These serve as guides, allowing you to seamlessly navigate to the sections of the framework that align with your current organisational maturity and focus.



#### Stage 1: Awareness - Basic policies

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What organisations are capable of at this stage:

At Stage 1, an organisation focuses on raising awareness of the risk engine, laying down the fundamental data structures, and initiating analytics capabilities.

Foundational policies and strategies for resilience should be put in place, heightening stakeholder awareness of the significance of resilience in third-party risk management. Organisations have set up a basic data framework to sort and catalogue resilience and risk management information, which paves the way for a more informed, data-driven approach to third-party risk management.

Metrics that organisations should measure

Policy Awareness: Assess employee awareness

to test their performance at this stage:

of basic risk policies. Implement periodic quizzes or assessments to gauge employees'

Compliance Audits: Track the frequency of

and track the actual audit frequency.

Data Completeness Score: Evaluate the

comprehensiveness of data collection from the internal sources available. Define specific data completeness criteria and assign scores to data sources, based on their compliance

compliance audits. Set a target for the number

of compliance audits to be conducted annually,

understanding of risk policies.

with these criteria.

3

Outcomes an organisation can expect to see by reaching this stage of maturity:

Organisations lay the groundwork, with a basic data framework in place to sort and catalogue relevant information, such as collecting and organising suppliers' financial data. This framework forms the foundation for future data analytics initiatives.

Foundational resilience policies and strategies are established, to increase stakeholder awareness of risks. For example, awareness of environmental risks could strengthen the company's efforts to reduce its carbon footprint, aligning with its sustainability goals.

4

How organisations can test their maturity at this stage:

Confirm the existence of documented resilience policies or strategies, no matter how fundamental.

Evaluate how the organisation's current risk management practices are communicated and understood across different audience segments, including internal teams and external stakeholders.

Review the availability of basic third-party risk management tools.

Recommendations for organisations

to improve maturity in this domain:

Formulate and document a basic resilience policy, to outline the organisation's commitment.

Ensure the availability and utilisation of fundamental tools for third-party risk management.

Begin to establish (and provide education on) the key third-party relationships that significantly impact operations.

Initiate awareness programmes to educate employees and key stakeholders on resilience concepts.

Establish a foundational data fabric, with data from various internal sources, to categorise risks and create a comprehensive view of the third-party risk landscape.

Addressing risk and building resilience: How to navigate the journey



#### **Stage 2:** Stability – Defined framework

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#### What organisations are capable of at this stage:

In Stage 2, organisations enhance their risk engine by weaving analytics into their risk management activities, setting up a system of steady processes and clear-cut governance, where everyone knows their roles.

They work on creating a data fabric that allows easy access to uniform risk management information from various sources, primarily from internal sources, supplemented with key external data for the core of their supply base. Resilience becomes a core part of the organisation's goals and planning, with a focus on understanding and documenting critical third-party relationships to build a culture that understands and values resilience.

2

#### Metrics that organisations should measure to test their performance at this stage:

Framework Adoption Rate: Determine the rate at which departments adopt the resilience framework. Measure the percentage of departments that have fully adopted the resilience framework and track changes over time.

**Risk Coverage:** Evaluate the proportion of organisational activities covered by the risk framework. Define the scope of activities covered by the risk framework and assess the proportion of coverage. Track changes as new activities are integrated.

Data Integration Level: Assess the degree that risk management data is integrated and accessible across departments. Create a data integration maturity model with specific stages. Assess the integration level for each department and determine their progress.

3

#### Outcomes an organisation can expect to see by reaching this stage of maturity:

Increased efficiency in risk data management, quantified by reduced time required for data access and processing. This efficiency improvement enables organisations to make faster and more informed decisions.

Enhanced understanding and documentation of third-party relationships. Improved supplier relationship management, through a comprehensive system for tracking and documenting supplier interactions, ensures a reliable supply chain and supports customer satisfaction, by reducing product shortages.

4

## How organisations can test their maturity at this stage:

Verify the presence of standardised processes and governance for third-party risk management, by determining the causes of risks and who they impact in an organisation.

Clarify roles and responsibilities within the organisation for resilience-related tasks.

Check the availability and application of standardised risk management tools, to ensure a consistent risk treatment. 5

#### Recommendations for organisations to improve maturity in this domain:

Document and implement standardised thirdparty risk management processes, covering assessment, monitoring (assurance) and incident response (adaptability).

Develop a governance framework that solidifies roles and responsibilities for resilience.

Standardise risk assessment methodologies, to ensure uniformity across the organisation.

Further develop the data fabric with uniform data quality and structure across multiple sources, which enables the seamless access and extensive integration of internal and external risk management data.



#### Stage 3: Proactive - Integrated processes

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#### What organisations are capable of at this stage:

By Stage 3, an organisation's risk engine is advanced and smoothly incorporates thirdparty risk management into its main business activities. There's a detailed classification system for risks, and technology is used to bolster resilience and streamline risk operations.

Data systems are broadened to include external information sources, which helps achieve a fuller risk evaluation, while advanced analytics provide deeper insights. Risk management practices are well-integrated into everyday business tasks, supported by solid governance frameworks and a uniform application of methods.

Metrics that organisations should measure

**Risk Mitigation:** Measure the effectiveness of

risk mitigation strategies. Establish and track

KPIs for risk mitigation effectiveness, such as

reduced incident frequency or financial losses.

to test their performance at this stage:

Policy Adaptation: Track how efficiently

and effectively policies adapt to new risks.

Implement a timeline for policy adaptations

in response to new risks. Measure adherence to this timeline and assess the effectiveness of

**External Data Utilisation:** Track the integration and utilisation rate of external data in risk

management processes. Track the percentage of external data integrated into risk management processes. Set targets for increased utilisation.

#### Outcomes an organisation can expect to see by reaching this stage of maturity:

Significant improvement in operational efficiency through streamlined risk operations, aligning with cost optimisation and time-tomarket reduction goals. For example, adopting lean manufacturing principles in production processes allows the organisation to reduce operational inefficiencies and production costs.

Advanced analytics contributing to deeper risk insights, directly supporting improved transparency and customer satisfaction. For example, deploying advanced analytics to analyse employee spending behavior can identify unplanned and unmanaged risks, and drive key corrective actions.

#### **Recommendations for organisations** to improve maturity in this domain:

Deepen the integration of risk management in core business operations.

Invest in advanced technologies (like AI) and analytics, to improve risk assessments and incident responses.

Update and broaden the risk taxonomy, to capture emerging risks and evolving business needs.

Enhance the data fabric to include external data sources, then enrich risk assessments with deeper risk insights and broader perspectives.

Develop comprehensive educational programmes, which are tailored to equip individuals with the skills needed to leverage AI effectively.

#### How organisations can test their maturity at this stage:

Assess the level of risk management integration into core business processes.

Evaluate the effectiveness of automated tools in risk assessment and monitoring.

Measure the capability to conduct financial stress testing for potential insolvencies or demand shifts.

Implement a comprehensive reporting mechanism at the board level, including actions,

## mitigations and performance indicators.

policy changes.



#### Stage 4: Resilient - Dynamic architecture

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#### What organisations are capable of at this stage:

At Stage 4, the risk engine becomes a dynamic and collaborative ecosystem that combines advanced analytics and human insight, always ready to adjust to new risks with data-driven strategies. This creates an environment where continuous progress and innovation are the norms.

The organisation harnesses cutting-edge technology, like AI, for forward-thinking risk management. Its data system is fine-tuned for immediate processing, using sophisticated analytics and AI for swift, informed decisions in a changing risk environment. Now, organisations should sharpen their ability to adapt, ensuring their risk management is nimble, forward-looking, and seamlessly integrated with advanced tech solutions.

Outcomes an organisation can expect to see by reaching this stage of maturity:

Being at Stage 4 fosters a culture of continuous progress and innovation. The organisation encourages employees to explore new technologies and approaches to risk management, driving ongoing improvements in their resilience strategies.

Risk management systems seamlessly integrate n-th tier supplier data, Al and advanced technologies with human insights. This integration merges deep supply chain data with human expertise, complemented by Aldriven decision-making, creating a synergy that enhances the organisation's overall resilience.

Metrics that organisations should measure to test their performance at this stage:

**Stakeholder Engagement:** Measure the degree of stakeholder involvement in risk architecture. Create a stakeholder engagement index that measures involvement levels. Collect feedback and assess the index's changes.

Real-time Data Processing Capability: Measure the organisation's ability to process and analyse data in real time, to be used in risk assessments. Define specific benchmarks for real-time data processing speed and accuracy. Regularly test and measure the organisation's capabilities.

N-th Tier Data Depth and Completeness Index: Evaluate the percentage of nth-tier suppliers with complete profiles, including basic information, financial data, operational capacity, compliance records and risk exposure. Develop a scoring system to rate the depth of information collected for each supplier, considering various risk and resilience factors.

4

### How organisations can test their maturity at this stage:

Evaluate the organisation's ability to proactively adapt to emerging risks, and the incorporation of methodologies (such as Agile) in decision-making processes.

Assess the effectiveness of advanced analytics and Al in risk assessments and responses.

Monitor the diversification of the supply base, to mitigate geographical risks and ensure reliable material availability.

Assess whether comprehensive data is collected for all relevant nth-tier suppliers and how frequently it is updated.

5

#### Recommendations for organisations to improve maturity in this domain:

Implement real-time risk assessment capabilities in an adaptive architecture.

Foster continuous improvement in resilience practices, including regular assessments and innovations.

Ensure risk and resilience processes remain aligned with the evolving risk landscape.

Optimise the data fabric for real-time data processing, enabling agile responses to emerging risks.

Establish protocols for continuous data validation and veracity checks across multiple data sources, to maintain integrity and accuracy.



#### Stage 1: Awareness - Initial identification

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What organisations are capable of at this stage:

In Stage 1, organisations begin risk management by setting up simple methods to illuminate risks. This helps them understand what they're up against and lays the groundwork for a thorough risk management plan.

Organisations learn to spot and deal with basic risks, creating a solid base for more advanced risk handling in the future. It's crucial at this stage for them to grasp the essentials of identifying risks.

Metrics that organisations should measure to test their performance at this stage:

**Risk Identification Rate:** The number of new risks identified within a specified period. Set a target for and track the number of new risks to be identified within a specific timeframe.

Initial Risk Assessment Time: The average time taken to perform initial risk assessments. Establish a benchmark for the average time taken to perform initial risk assessments. Continuously monitor and aim to reduce this time.

Outcomes an organisation can expect to see by reaching this stage of maturity:

Development of a basic risk identification process, leading to improved awareness and initial risk categorisation. It can allow the organisation to identify potential risks in its production process or facilities, for example.

Establishment of foundational risk handling skills, such as cybersecurity training for its employees, allows the company's incident response teams to become more efficient at detecting and mitigating threats, reducing the impact of potential data breaches and other operational risks.

How organisations can test their maturity at this stage:

Verify the existence of fundamental risk assessment methodologies.

Utilise initial techniques for identifying common third-party risks.

Recognise the importance of risk appraisal within the organisation.

Recommendations for organisations

to improve maturity in this domain:

Begin developing robust risk assessment methodologies, tailored to specific business needs.

Start employing a range of risk identification techniques, considering both qualitative and quantitative factors.

Initiate risk categorisation (based on potential impact and probability), to lay the groundwork for advanced analysis.



#### Stage 2: Stability - Systemic categorisation

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What organisations are capable of at this stage:

In Stage 2, organisations systematically sort and assess risks based on impact and likelihood, implementing formal processes for consistent risk handling and decision-making. This approach aligns risk management with regulatory requirements, aiding in maintaining corporate governance and avoiding legal issues.

By establishing a structured method for categorising risks, organisations can effectively allocate resources and prioritise actions, ensuring a well-coordinated response to risks of varying degrees, based on their severity and probability.

Metrics that organisations should measure to test their performance at this stage:

**Risk Categorisation Accuracy:** The accuracy of risk categorisation, as reflected in post-event evaluations. Develop a categorisation accuracy metric based on post-event evaluations and predefined criteria, to continuously assess and enhance accuracy.

**Assessment Effectiveness:** Define KPIs for assessment effectiveness, such as the percentage of real-time risks successfully identified and prioritised.

**Sole-Supply Risk:** Track the number of single-sourced suppliers, to identify and quantify exposure points within the supply chain. Set targets for reducing this number, to minimise exposure points.

Outcomes an organisation can expect to see by reaching this stage of maturity:

Enhanced ability to allocate resources and prioritise actions based on a structured risk categorisation process. The ability to allocate resources more effectively allows the organisation to prioritise high-risk projects and allocate additional risk-related measures and resources accordingly, thereby reducing the likelihood of risks occurring.

Improved regulatory compliance and corporate governance through alignment with formal risk assessment processes. Organisations that align their risk assessment processes with regulatory requirements ensure compliance with regulations, and reduce the risk of legal issues or penalties.

How organisations can test their maturity at this stage:

Verify the implementation of risk categorisation methodologies, considering impact and probability.

Categorise vendors, based on their risk profile and importance to the organisation.

Implement assessments of supply market specifications, to reduce complexity and identify alternative suppliers.

Put protocols in place for onboarding and managing 'non-traditional' third parties, including trade associations and joint ventures. \_

Recommendations for organisations to improve maturity in this domain:

Enhance risk categorisation methods, to account for a broader range of factors, such as dependencies and interconnections.

Develop formalised risk assessment processes, with clear methodologies for assessing impact and probability.

Expand risk assessments to incorporate compliance risk considerations, while aligning with regulatory requirements.



#### Stage 3: Proactive - Advanced management

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What organisations are capable of at this stage:

In Stage 3, organisations shift to advanced risk management techniques. They use sophisticated risk modelling and scenario analysis to proactively identify and assess emerging risks. This progression from simple categorisation allows for a more dynamic and anticipatory approach to potential threats.

The methodologies have evolved to cover a broader spectrum of risks. Organisations are now prepared for various scenarios, ensuring early detection and a proactive response. This contributes significantly to maintaining business continuity and equips organisations to handle complex risks effectively.

2

Metrics that organisations should measure to test their performance at this stage:

**Risk Reporting Frequency:** How often risk reporting is updated and provided to management. Establish a desired frequency for risk reporting updates (e.g. monthly or quarterly).

**ESG Measurement:** Quantitative scoring and assessments related to ESG management, with specific criteria.

**Supplier Innovation:** Create a supplier innovation index based on performance metrics. Monitor the trend of supplier innovation performance to gauge the continuous contributions from critical suppliers.

3

Outcomes an organisation can expect to see by reaching this stage of maturity:

Organisations achieve illumination of emerging risks through sophisticated risk modeling and scenario analysis. For example, using advanced risk modelling to assess potential natural disasters and their impact on stakeholders enables the company to plan for disaster response, ensuring business continuity and timely support for affected customers.

The broadened risk methodology spectrum prepares organisations for diverse scenarios, improving their capacity to manage complex risks effectively. For example, expanding the organisation's risk methodology to include geopolitical and supply chain disruption scenarios allows the company to navigate complex global risks effectively, ensuring operational stability and facilitating expansion into new markets, ultimately contributing to revenue growth.

4

How organisations can test their maturity at this stage:

Utilise advanced risk modelling and scenario analysis techniques, such as price level tracking and inflation forecasts.

Proactively identify emerging risks through modelling and scenario planning, including Alrelated risk assessments.

Implement comprehensive vendor risk assessments covering a broad spectrum of risks, including cybersecurity, financial stability, manufacturing footprint, regulatory compliance and ESG.

5

Recommendations for organisations to improve maturity in this domain:

Invest in advanced risk modelling tools and technologies, to refine risk forecasting accuracy.

Invest in continuous multi-tier supply chain visibility, to proactively identify risks and assess the impacts of supply chain disruptions on the organisation and its suppliers (moving beyond point-in-time assessments).

Identify emerging risks through scenario planning and modelling, alongside second supply sources across regions.



#### Stage 4: Resilient - Strategic foresight

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What organisations are capable of at this stage:

At Stage 4, organisations adopt predictive analytics and AI for advanced risk forecasting, which significantly enhances their ability to illuminate and monitor risks in real time. Organisations become 'all-sensing' allowing for a dynamic and proactive management of risks.

The implementation of Al-driven risk assessments marks a leap in capability, enabling organisations to foresee and prepare for future risks, thus bolstering overall resilience. They are at the vanguard of risk management, gaining a competitive edge in a constantly evolving risk landscape. The focus is on continuously improving predictive abilities and integrating them with real-time monitoring for a responsive risk management strategy.

Metrics that organisations should measure to test their performance at this stage:

**Predictive Accuracy Score:** The accuracy of predictive risk assessments against actual events. Define criteria for measuring the accuracy of predictive risk assessments. Continuously evaluate assessments against actual events.

**Risk Mitigation Forecasting Effectiveness:** The efficacy of forecasts in preemptively mitigating potential risks. Establish KPIs for the effectiveness of risk mitigation forecasts, such as the percentage of forecasted risks successfully mitigated.

Outcomes an organisation can expect to see by reaching this stage of maturity:

By using advanced technology, the institution can identify emerging risks well in advance. For instance, it can anticipate market fluctuations, regulatory changes or cybersecurity threats, and implement strategies to mitigate these risks before they impact the business.

The organisation utilises Al-driven models and predictive analytics to continuously monitor financial markets, economic indicators and internal operations in real time. This real-time monitoring allows them to promptly detect potential risks and take proactive measures.

How organisations can test their maturity at this stage:

Gain visibility and validation of the nth-tier supply chain, using predictive analytics and Aldriven risk assessment models.

Establish real-time risk monitoring and alerts, to enable swift responses to emerging threats (such as financial stress-testing).

Establish KPIs to evaluate and enhance the quality of goods or services from a bottom-up perspective.

Recommendations for organisations to improve maturity in this domain:

Continue investing in cutting-edge technologies (including machine learning and predictive modelling), for enhanced risk forecasting.

Develop AI-driven risk assessment models, which adapt to changing risk landscapes and offer predictive insights for future risks.

Incorporate scanning for faint signals that indicate emerging risks in the 10-15-year horizon.



#### **ASSURANCE**

#### **Stage 1:** Awareness – Periodic assurance

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What organisations are capable of at this stage:

In Stage 1, organisations start with basic compliance assurance, setting up periodic audits and gaining initial visibility into their supply chains. This stage lays the foundation for compliance, preparing for future stages where continuous monitoring and formalised incident response plans become crucial.

It's a vital step for maintaining regulatory compliance and avoiding potential legal and financial repercussions. 3

Outcomes an organisation can expect to see by reaching this stage of maturity:

Organisations lay a crucial foundation for regulatory compliance, preparing for advanced stages of continuous monitoring and incident response by building a comprehensive regulatory compliance framework.

Organisations are able to interpret the requirements of stringent industry regulations to prevent legal challenges and financial penalties, positioning the company as a trusted provider within their sector. 5

Recommendations for organisations to improve maturity in this domain:

Develop preliminary incident response and recovery plans.

Initiate training and awareness programmes on the importance of incident responses.

Establish basic tools or resources for effective incident response and recovery.

Ensure the network infrastructure incorporates spare capacity, to maintain resilience.

How organisations can test their maturity at this stage:

Evaluate the implementation and effectiveness of basic compliance audits.

Assess the initial setup of supply chain visibility tools for compliance tracking.

Review the existence and effectiveness of initial incident response plans.

to

Metrics that organisations should measure to test their performance at this stage:

**Incident Detection Time:** The average time taken to detect and respond to assurance-related incidents. Set a benchmark for the average time to detect and respond to incidents, then continuously work on reducing this time.

**Audit Pass Rate:** The percentage of audits passed without major issues. Define criteria for major audit issues and set a target for the percentage of audits to pass without major issues.



## **ASSURANCE**

### Stage 2: Stability - Continuous monitoring

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What organisations are capable of at this stage:

At Stage 2, organisations implement continuous monitoring of third-party performance and compliance. This involves a systematic approach to ensure ongoing oversight and readiness for advanced stages of assurance.

Progressing to predictive assurance requires the integration of advanced technologies for real-time monitoring and predictive risk identification and interpretation. This stage is pivotal to enhancing operational efficiency and reducing risks, thus safeguarding the organisation's reputation and operational integrity.

Metrics that organisations should measure to test their performance at this stage:

Real-time Reporting Capability: The ability to generate real-time assurance reports. Define real-time reporting requirements and capabilities and ensure the organisation can generate real-time assurance reports as needed.

**Vendor Compliance Rate:** The percentage of third parties in compliance with organisational standards, against a specified target compliance rate.

**Impact of Risk Actions:** Measure whether spare capacities are utilised effectively, and if risk actions taken have a tangible impact on maintaining operations and delivering results.

3

Outcomes an organisation can expect to see by reaching this stage of maturity:

An increase in oversight efficiency through continuous monitoring systems, enhancing real-time compliance tracking. For example, implementing the use of real-time transaction monitoring software to detect potential fraud and money 'laundering activities to enable the tracking of and response to compliance issues in real time.

Significant reduction in risk incidents due to predictive risk identification. For example, adopting predictive maintenance technology that identifies potential maintenance issues before they escalate, enhancing the organisation's reputation for reliability and operational integrity.

4

How organisations can test their maturity at this stage:

Measure the effectiveness and consistency of continuous monitoring systems for third-party performance.

Assess the real-time detection and risk interpretation capabilities in place for compliance issues.

Evaluate the integration of continuous monitoring into broader risk management practices.

5

Recommendations for organisations to improve maturity in this domain:

Integrate incident responses with broader risk management processes.

Incorporate a systematic checklist within the governance model, to ensure thoroughness and consistency in incident response strategies.

Enhance communication channels and protocols for efficient incident management (such as an unannounced drill, to test and evaluate the effectiveness of contingency plans).



## **ASSURANCE**

## Stage 3: Proactive - Predictive assurance

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What organisations are capable of at this stage:

At Stage 3, organisations shift to proactive risk management using predictive assurance models, enhancing trust in supply chain relationships through transparency and reliability. This stage integrates predictive assurance into risk management, focusing on strategic growth through collaboration.

The next advancement involves building a resilience culture, and creating dynamic frameworks that adapt to evolving risks.

Organisations at this stage proactively address risks, minimising incident impacts and maintaining operational continuity through continuous improvement, advanced technology, and strengthened coordination between incident response and risk assessment teams.

Metrics that organisations should measure

**Proactive Incident Prevention Rate:** The rate of incidents prevented through proactive measures. Define criteria for proactive incident prevention and set targets for prevention rate.

to test their performance at this stage:

Assurance Process Improvement Index: The number of improvements made to assurance processes. Create a standardised index for assessing process improvements within assurance.

Al Traceability: Define criteria for Al traceability within business operations and set targets for Al solutions with traceability used within business operations.

3

Outcomes an organisation can expect to see by reaching this stage of maturity:

Enhanced trust in supply chain relationships through proactive risk management and transparency. By collaborating closely with suppliers, and sharing risks through a transparent supply chain traceability system, customers can track the origin and safety of raw materials used throughout the product lifecycle, enhancing trust in the brand and ensuring resilience in the face of potential recalls or supply disruptions.

Collaboration and strategic growth become central, as predictive assurance is integrated into risk management practices. Incorporating capabilities like predictive customer demand forecasting enables organisations to collaborate with suppliers more effectively, reduce lead times, and launch new products in response to market trends, driving innovation and resilience.

4

How organisations can test their maturity at this stage:

Evaluate the implementation of predictive assurance models and their effectiveness in proactive risk mitigation.

Assess the integration and effectiveness of AI and other advanced technologies in incident detection and responses.

Review the level of end-to-end transparency achieved in the value chain, for proactive planning.

Utilise resilience capabilities, such as advanced cybersecurity measures.

5

Recommendations for organisations to improve maturity in this domain:

Foster a culture of continuous improvement in incident response.

Leverage advanced technologies (like AI) for real-time incident detection.

Build end-to-end transparency in the value chain, to advance planning capabilities.

Focus on diversification in AI development teams, to mitigate the risk of bias in AI systems.



## **ASSURANCE**

## Stage 4: Resilient - Resilience culture

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What organisations are capable of at this stage:

At Stage 4, organisations incorporate ethical and social responsibility into their assurance processes, enhancing supply chain transparency and employing predictive models for ethical risk management. This stage marks a mature, holistic approach, where risk management aligns with ethical standards and social responsibility.

The focus is on continuously improving predictive analytics and ethical risk management, reinforcing resilience. This comprehensive approach not only enhances the organisation's reputation but also aligns its operations with broader societal values, representing a significant evolution in assurance practices.

2

Metrics that organisations should measure to test their performance at this stage:

**Ethical Compliance Rate:** Establish ethical standards and criteria for compliance and measuring the percentage of operations complying with those ethical standards against a target compliance rate.

Resilience Training Completion Rate: Develop resilience and ethics training programmes. Set a target for the percentage of employees completing training.

Quantifiable Targets for Annual Contingency Plans: Define specific quantifiable targets for annual contingency plans, such as business recovery percentages within a specified timeframe.

3

Outcomes an organisation can expect to see by reaching this stage of maturity:

The company has implemented advanced supply chain tracking systems and blockchain technology to provide real-time visibility into its supply chain. This transparency allows customers, investors and stakeholders to trace the origins of products, ensuring ethical sourcing and production practices.

The organisation employs predictive models and AI-driven tools to identify potential ethical risks within its supply chain. For instance, these tools can detect labour violations, environmental concerns, or ethical lapses among suppliers or partners, before they escalate.

A culture of resilience is nurtured, enabling proactive risk mitigation and incident impact minimisation, contributing to operational continuity and overall performance improvement.

4

How organisations can test their maturity at this stage:

Evaluate the integration of ethical standards and social responsibility in assurance frameworks.

Assess the use of predictive analytics and AI in managing ethical risks and real-time incident detection.

Review the coordination between risk assessment and incident response teams, ensuring comprehensive risk management.

Put comprehensive training and certification programmes in place, to ensure consistent capabilities and knowledge across the organisation.

5

Recommendations for organisations to improve maturity in this domain:

Continuously enhance analytics and Al capabilities, for ethical risk management and real-time incident detection.

Strengthen the synergy between incident response and risk assessment teams, for comprehensive risk oversight.

Jointly develop strategies with suppliers and partners to navigate complex challenges, while focussing on ethical standards and social responsibility.



### Stage 1: Awareness - Reactive response

Click to navigate:

ADAPTABILITY

STAGE 1 AWARENESS

What organisations are capable of at this stage:

At Stage 1, organisations begin their journey in adaptive risk management by taking initial, essential steps. This stage is all about understanding the importance of being adaptable when managing risks, which lays a strong foundation for more sophisticated future strategies.

These early steps include employing basic risk visualisation techniques. This helps organisations grasp the potential operational impacts of various risks, setting a solid groundwork for the evolution of their risk management capabilities.

Metrics that organisations should measure

Incident Response Adaptability: How quickly

For example, the average time (in hours or

days) taken by the organisation to adapt to

Risk Visualisation Effectiveness: A score

evaluating the effectiveness of basic risk

understand and anticipate the potential operational impacts of various risks.

unforeseen incidents.

the organisation adapts to unforeseen incidents.

visualisation techniques in helping organisations

to test their performance at this stage:

Outcomes an organisation can expect to see by reaching this stage of maturity:

Organisations have improved decision-making agility and real-time insights into supply chain vulnerabilities, enabling faster decisions during a global supply chain disruption, to minimise the impact on production and maintain business agility.

Organisations have deployed basic risk visualisation techniques, aiding in the understanding of potential operational impacts. For example, using interactive risk maps to visualise potential risks across geographies (such as flood zones), to take proactive measures to mitigate them.

**Recommendations for organisations** to improve maturity in this domain:

Begin developing an adaptive risk management strategy, incorporating lessons learned from past incidents.

Initiate discussions on integrating adaptive practices into existing risk frameworks.

Start assessing the organisation's flexibility in responding to changing risk landscapes.

How organisations can test their maturity at this stage:

> Evaluate the current response mechanisms and their effectiveness in managing unforeseen incidents.

Assess the organisation's current flexibility in adapting to changing risk environments.

Evaluate how the organisation visualises risks and understands their impact, through simple scenarios.



## Stage 2: Stability – Formalised response

Click to navigate:

What organisations are capable of at this stage:

**ADAPTABILITY** 

STABILITY

At Stage 2, organisations move towards a more formal and integrated approach in adaptive risk management, by aligning these practices with their existing risk frameworks. This shift marks a transition from reactive methods to a structured, proactive strategy, enhancing preparedness for emerging risks through detailed scenario analyses.

This stage is characterised by the development of a more organised approach to risk discussions and evaluations, focusing on how adaptive risk management is interwoven into the broader risk framework. It is a critical phase for solidifying an organisation's ability to anticipate and respond to dynamic risk environments.

Outcomes an organisation can expect to see by reaching this stage of maturity:

The development of a structured risk assessment framework that facilitates crossfunctional discussions among risk, compliance, and business teams, while streamlining risk evaluation and enabling quicker decisions, to enhance business process agility.

The ability to anticipate and respond to dynamic risk environments is solidified. For example, utilising machine learning algorithms to predict customer demand fluctuations, to proactively adjust inventory levels and distribution strategies in real time, ensuring product availability during peak demand periods.

**Recommendations for organisations** to improve maturity in this domain:

Formalise the adaptive risk management strategy, ensuring it is aligned with other organisational goals.

Ensure critical product materials are safeguarded, and extraneous ones are eliminated, to reduce supply dependency risks.

Develop clear guidelines and training programmes, to promote a culture of adaptability.

How organisations can test their maturity at this stage:

Review the implementation and integration of the formalised adaptive risk management strateav.

Assess the effectiveness of training programmes in instilling a culture of adaptability.

Assess how effectively detailed risk scenario analyses are utilised to support adaptive strategy development.

Metrics that organisations should measure to test their performance at this stage:

**Adaptive Strategy Implementation Rate:** 

The rate of implementation of the formalised adaptive strategy.

Adaptation Awareness Level: Assess the level of understanding and awareness of adaptive risk management amongst employees, such as the percentage of employees who have completed adaptive risk management awareness training.



## **Stage 3:** Proactive – Agile organisation

Click to navigate:

ARCHITECTURE

ASSESSMENT

ASSURANCE

**ADAPTABILITY** 

STAGE 1 AWARENESS

STAGE 2 Stability

STAGE 3
PROACTIVE

STAGE 4

What organisations are capable of at this stage:

By Stage 3, organisations are fully engaged in continuous adaptation, tweaking their risk management strategies in real time as risks evolve. This involves cultivating a robust, agile culture that can quickly respond to new threats, thus improving resilience. The integration of digital twin technology into monitoring systems enables real-time scenario analysis and live simulations.

At this stage, organisations not only adjust strategies in real time, but also form crossfunctional teams dedicated to proactive risk management. This approach underlines the commitment to building a culture where adaptability is a key component of the organisational strategy.

2

Metrics that organisations should measure to test their performance at this stage:

Real-Time Risk Adaptation Efficiency: How effectively the organisation adapts its risk strategies in real time. Create a numerical score measuring the efficiency of adapting risk strategies in real time, based on predefined criteria.

**Cross-Functional Collaboration Score:** The effectiveness of cross-functional teams in adapting to risks. Create a methodology to assess the effectiveness of cross-functional teams in adapting to risks, based on collaboration assessments.

3

Outcomes an organisation can expect to see by reaching this stage of maturity:

Integration of digital twin technology for realtime scenario analysis enhances adaptability. For example, creating virtual replicas of infrastructure to simulate and analyse different scenarios, such as equipment failures or extreme weather events, in real time, enabling proactive adjustments to ensure uninterrupted supply.

Formation of cross-functional teams, such as engineers, supply chain experts and quality control specialists, improves the ability to sense risks in the production process and develop proactive measures to address them, reducing disruptions and enhancing resilience.

4

How organisations can test their maturity at this stage:

Evaluate the efficiency of continuous monitoring and real-time strategy adjustment processes.

Assess the effectiveness of cross-functional collaboration in dynamically adapting to risks.

Review the integration and effectiveness of digital twin technology in continuous monitoring systems, for real-time scenario analysis and proactive risk adaptation.

5

Recommendations for organisations to improve maturity in this domain:

Implement continuous monitoring and realtime adjustments to risk management strategies.

Foster cross-functional collaboration for dynamic risk adaptation.

Invest in technologies that support agile decision-making in response to new risks.

Employ tools that disseminate suggestive actions based on data analysis, to provide clear recommendations for corrective actions.



## Stage 4: Resilient - Adaptive organisation

Click to navigate:

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ARCHITECTURE

ASSESSMENT

ASSURANCE

**ADAPTABILITY** 

STAGE 1 AWARENESS

STAGE 2 Stability

STAGE 3
PROACTIVE

STAGE 4 Resilient What organisations are capable of at this stage:

At Stage 4, organisations reach the pinnacle of adaptive resilience, harnessing advanced analytics, digital twin technology and AI, for in-depth, predictive risk assessments. This stage embodies a culture of adaptability and resilience, with capabilities to sense, react to and recover from risks quickly, thereby bolstering operational stability.

These organisations implement predictive analytics and AI for strategic foresight in risk management and empower cross-functional teams with real-time decision-making. They continuously invest in cutting-edge technologies to increase response velocity and accelerate plans to address new macroeconomic challenges.

Metrics that organisations should measure to test their performance at this stage:

Predictive Risk Management Effectiveness: A scoring methodology to measure the effectiveness of using predictive analytics in risk management.

Adaptability Index: The organisation's overall adaptability to changing risk environments. Use an adaptability index for measurement, based on a set of criteria and weighted factors.

ك

Outcomes an organisation can expect to see by reaching this stage of maturity:

The company continually invests in emerging technologies and regularly updates its risk response plans. This forward-looking approach ensures they are well-prepared for new macroeconomic challenges, technological advancements and evolving market dynamics.

Cross-functional teams are empowered with real-time data and decision-making authority. For instance, when a supply chain issue arises, a cross-functional team comprising members from logistics, procurement and production can collaborate seamlessly to find solutions and minimise the impact on operations.

4

How organisations can test their maturity at this stage:

Evaluate the organisation's overall adaptability and the flexibility of assets to respond to macroeconomic changes and market pressures (such as leveraging more automation to address labour shortages).

Review the organisation's ability to capture, disseminate and utilise knowledge about risks and resilience.

Measure the sophistication and effectiveness of Al-enhanced digital twin technology in predictive scenario-planning and strategic decision-making.

5

Recommendations for organisations to improve maturity in this domain:

Integrate predictive analytics and AI into risk management, to improve foresight and strategic planning.

Strengthen the organisation's resilience by fostering a culture that values adaptability and continuous learning, with clear communication channels and response protocols.

Develop strategies to pivot rapidly in response to macroeconomic pressures and market changes.

# How to progress through the maturity journey

Using the model, procurement and supply chain teams can identify the weaknesses or opportunities within their risk management approaches to achieve a greater degree of security and resilience.

The model enables teams to understand risk management in terms of a series of stages, alongside a number of critical, interlinked components (Architecture, Assessment, Assurance and Adaptability).

The model offers procurement and supply chain teams a comprehensive roadmap for advancing their risk management maturity. By examining the measures, outcomes, and advancements outlined within each stage, teams gain a clear understanding of where they currently stand and what specific actions are needed to progress. Additionally, the model's focus on tangible, measurable outcomes empowers teams to set achievable goals, track their progress, and continuously refine their risk management strategies to secure greater effectiveness.



### The KPIs that define deeper, more mature resilience

Critically, organisations need to gather (and correctly harness) all the internal and external data associated with their end-to-end supply chain. This means understanding what the supply chain looks like and what all the moving parts are, to the point that they can measure every drop of spend, and see exactly where that came from in their supply chain, right down to the individual component stage.

By having that visibility, they can track and understand the entire journey that products or services go through. However, if such a comprehensive understanding is not secured, this renders the organisation exposed to risks that they simply cannot see. For this reason, supply chain visibility and getting accurate data are fundamental to advancing risk resilience.

The other approach required to progress through the maturity journey is determining how much of your spend, products or services are covered by a well-defined resilience programme. Do you have continuity plans in place? Are you able to find alternative suppliers quickly if you need them, to ensure you can continue serving your customers?

Again, it involves an overarching assessment of your costs, and determining the volume of the products or materials that you are buying which you could: feasibly do without, find an alternative supplier for, or put a plan in place to address the associated risks. Whether or not these measures are in place is a clear determination of how prepared and how resilient an organisation is.



# How organisations adopt the Resilience Model

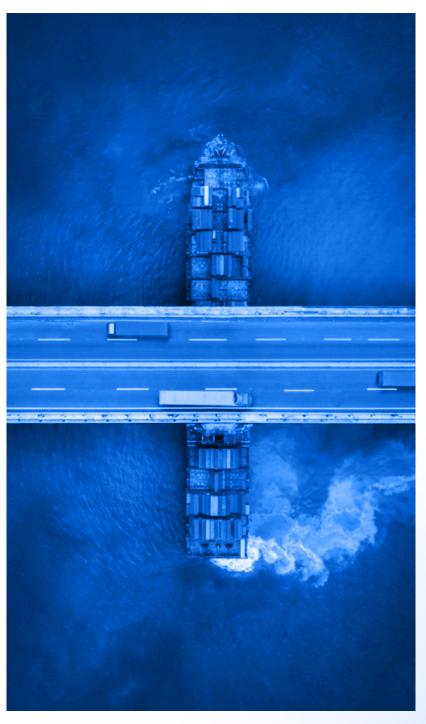
Organisations applying this model will exhibit varying stages of maturity, which may not align across all core components (Architecture, Assessment, Assurance and Adaptability).

This model is not a one-size-fits-all solution, and each organisation's journey will differ. Some organisations may mature faster in specific areas, to address critical gaps aligning with their unique objectives and challenges.

In cases where an organisation has not yet matured in one of the components, reaching Stages 2 or 3 in overall maturity may prove challenging. It's also important to note that achieving the highest stages of maturity in all components may not be a goal for every organisation, as there are investments associated with progressing through each stage.

As an organisation moves through the maturity stages across the four components, it will need to not only mature its capabilities, but also its cultures, operating models, processes and governance to fully realise the benefits of being at that level of maturity.

It is vital to stress the importance of having a strong underlying data foundation, which increases in complexity as organisations mature. Getting data from multiple sources (internal, external and nth tier) becomes increasingly challenging, but the value of this data increases substantially, enabling a more predictive approach to risk management and resilience.



# How organisations can adopt this model to progress their maturity (continued):

To further illuminate, we examine the maturity of a manufacturing organisation across each component of the resilience model, highlight key steps for improvement in each area, and explore actions to be taken by the organisation to enhance its maturity.

1. Develop robust risk assessment methodologies tailored to their specific business needs.

**Example:** The manufacturing company customises its risk assessment methods to consider the unique challenges of the industry, such as machine breakdowns. This enables them to implement predictive maintenance algorithms to reduce downtime and production losses.

2. Start to employ a range of risk identification techniques, considering both qualitative and quantitative factors.

**Example:** The manufacturing company combines customer feedback surveys (qualitative) with sales data analysis (quantitative) to sense potential risks, such as fluctuating demand.

3. Implement continuous monitoring and real-time adjustments to risk management strategies.

**Example:** The manufacturing company employs real-time sensors on their production lines that monitor equipment performance and instantly alert maintenance teams to prevent breakdowns, reducing the risk of production delays.

4. Invest in technologies that support agile decision-making in response to new risks.

**Example:** The manufacturing company invests in a cloud-based analytics platform that quickly assesses market demand fluctuations and adjusts production schedules accordingly, thereby minimising inventory risks.

# How organisations can adopt this model to progress their maturity (continued):

5. Deepen the integration of risk management in core business operations.

**Example:** The manufacturing company embeds risk assessment processes into its entire production process, ensuring that potential safety and operational risks are addressed at each stage of manufacturing.

**Example:** Increased collaboration with suppliers around risk mitigation and supply chain strategies, prioritising the products, orders and sales that are impacted the most.

6. Update and broaden the risk taxonomy to capture emerging risks and evolving business needs.

**Example:** The manufacturing company expands its risk taxonomy to include emerging risks like cybersecurity threats and regulatory changes, enabling it to proactively address these risks in its operations.

7. Leverage advanced technologies (like AI) for real-time incident detection.

**Example:** The manufacturing company uses Al-powered systems to monitor its supply chain in real-time, detecting disruptions such as supplier delays, transportation issues or inventory shortages.

8. Build end-to-end transparency in the value chain to advance planning capabilities.

**Example:** The manufacturing company collaborates closely with suppliers to create a transparent supply chain. Real-time data sharing and collaboration allows them to quickly adjust production in response to changing demand or supply disruptions.



### Best practice resilience

The organisations that get to Stage 4 represent the top 5-10% of global procurement and supply chain teams. By adopting this model, organisations can achieve a resilient stance that empowers them to thrive in an ever-changing macroeconomic landscape.

Resilient organisations represent the pinnacle of risk management and resilience, where they leverage technology, ethics, and adaptability to excel in an ever-changing risk landscape.

#### This is characterised by:

### **Cutting-edge technology integration:**

Organisations harness advanced technologies, data fabric and workflows, for proactive risk management and decision-making.

### **Ethical and social responsibility:**

Organisations focus on ethical standards and social responsibility, enhancing supply chain transparency.

#### **Predictive risk assessment:**

Organisations have in-depth, predictive risk assessments, enabling them to foresee and prepare for future risks.

### **Cross-functional empowerment:**

Cross-functional teams are empowered with real-time decisionmaking authority, ensuring swift responses to emerging risks, whilst procurement and supply chain teams strategically converge, tightening the fabric of the organisation's resilience.

#### **Continuous innovation:**

Organisations continually invest in talent and evolve response plans, staying ahead of new macroeconomic challenges, technological advancements, and market dynamics.

### **Culture of adaptability:**

Organisations at this stage foster a culture where adaptability is ingrained, and employees are encouraged to proactively respond to new threats and changes.

In the future, the organisations that invest in resiliency will witness a massive return on their investment, time and effort. Reducing the cost of mitigating risk, improving supplier relations and strengthening the supply chain ecosystem will all increase value creation across the supply chain. These are the organisations that can stay ahead of the significant risks, events and scenarios that would normally cost their organisation millions, if not billions, in disruption. If they can be the only organisation in their industry that can mitigate these events, and continue to provide products or service to their customers, this represents a major advantage and firmly strengthens their brand identity, both during and after the event.

On top of those benefits, by securing all of that data and its associated insights, they can start to innovate, and identify new, more advanced ways that they can influence their future product roadmaps, for example, or how they can more effectively work with their customers, to see risks within their wider organisational context.

So, once they've established their own security, they can achieve the same results with their suppliers. In this way, resilience can be evolved to the point where it is transferred to the broader supply chains, with the organisation's customers also successfully strengthening their resilience.

At this point, the weak links are removed, and the chain becomes almost unbreakable.

"You've got to balance between what I as the buyer want to know some of which I need to know, some of which is nice to have so that I can manage my business more effectively, and the supplier who says, 'I want to give you some information, but I don't want to expose to you how my business is performing at a point in time.' Over time, as AI matures and information is available out there in the market, you're going to be able to predict that."



Shawn Muma
Director, Supply Chain Innovation and Emerging Technologies, Digital Supply Chain Institute (DSCI)

## Risk and resilience manifesto

In the wake of dramatic and turbulent events like the COVID-19 pandemic and ongoing global conflicts, the spotlight is shining brightly on organisational resilience. These challenges have underscored the invaluable role of risk resilience, extending its significance far beyond just the procurement function. Today, it is a beacon guiding not only procurement, but every facet of the organisation, fortifying its overall security and risk posture.

For those that successfully achieve organisational resilience, the rewards include greater flexibility, increased execution and decision speed, a critical competitive advantage during a time of crisis, and a strengthened, dependable supplier network.

In order for procurement and supply chain functions to implement true resilience initiatives - in a way which realises their fullest opportunities - the following approaches should be adopted.

Deliver a dynamic architecture

Forge a dynamic architecture by investing in the latest technologies and capabilities, integrating external data sources to create a robust data fabric across the entire supply base, to enable real-time risk assessment and response. Encourage cross-functional collaboration to ensure your architecture remains nimble and adapts effortlessly to evolving risk environments.

Create a resilience culture

Promote resilience as a core value within your organisation, setting the standard for a culture that prioritises risk management. This encourages your partners and suppliers to join you in building a resilient and ethically responsible organisation, which aligns with broader societal values.

Empower strong leadership

Establish strong leadership that is committed to being at the core of a culture of resilience and adaptability throughout your organisation. Leaders must champion resilience initiatives, and thereby set the tone and example for a proactive approach to resilience.

Drive strategic foresight

Embrace strategic foresight as a competitive advantage, leveraging predictive technologies like AI and digital twins. Invest in transparency and targeted training programmes, to unlock the full potential of advanced technologies and enhance your decision-making.

Build an adaptive organisation

Transform your organisation into an adaptive powerhouse by nurturing a culture of agility and responsiveness. Empower your teams to swiftly adapt to evolving risks and opportunities, fostering innovation at every level.

Fortify your supply chains

Forge strong supplier partnerships, with a focus on strengthening the entire supply chain to create an unbreakable link. Collaborate closely with your suppliers to enhance their resilience, making the entire chain more secure and flexible in the face of unforeseen challenges.

# **Contributors**

The contributors to this paper shared hundreds of years of operational experience in successful risk management and resilience best practices.

Together, they provided a breadth of unique insights, spanning cross-sector collaboration to deep supply chain execution. They also shared the key areas of investment and focus that will enable procurement teams to develop future-proof risk management and resilience initiatives.



**Michael Corbo** Former Chief Supply Chain Officer (Retired Colgate Palmolive, and Craft Board Advisor



**Travis Johnson** Sr. Director ISM Procurement & Technology Enablement Walmart



Mark Hunt Commercial Operations Director. Procurement



**Chris Parsons** Digital Procurement Consultant ProcureTech



**Arun Kumar** Global Lead, Supply Chain Excellence MTN

MTN



**Gary Lock** Director, Global Head of Third Party Risk Management Fidelity International

Fidelity

Walmart 🔆



Joseph Martinez Former Chief Procurement Officer BNY Mellon



Josephine Walbank Research and Insights Lead ProcureTech

ProcureTech (



Craig Moss Director, Data and Change Management, Digital Supply Chain Institute (DSCI)

Shawn Muma Director, Supply Chain Innovation and Emerging Technologies, Digital Supply Chain



**Elvire Regnier** Former Procurement Executive, Colgate Palmolive and Unilever. and Craft Board Advisor

BNY MELLON



**Lance Younger** CEO and Founder ProcureTech





Institute (DSCI)







Seb Butt Global Business Development





Jennifer McHam Director of Content and Digital Marketing Craft



Mimi Spier Chief Marketing Officer Craft

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Craft illuminates the path to global supply chain resilience. It empowers businesses to strengthen their supplier networks and supply chains with the industry's most trusted and comprehensive data fabric and advanced risk mitigation engine. Its easy-to-use platform provides 360-degree visibility to quickly explore and evaluate supplier networks, Al-driven insights to detect and mitigate disruptions, and collaborative tools to optimise supply chain strategies.

With Craft, procurement and supply chain professionals can confidently navigate regulatory environments, uphold ethics, and drive business continuity. It is headquartered in San Francisco, CA where it assists commercial and governmental organisations worldwide in building more resilient supply chains.

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