

Preparing for tomorrow, today...

# Operational Resilience

in the Food, Agribusiness and Beverage sector

# Introduction

At Aon, we believe that how organisations approach and elevate risk management **today** will help them build resilience for **tomorrow**.

The over-arching KPI for our clients in the food, agribusiness and beverage (FAB) sector is ensuring safe products are delivered on time to customers. Operational resilience and agility, supported by robust supply chains, is critical. Supply chains are at risk of multiple forms of disruption, from digital danger to weather to terrorism to geopolitics, as well as more traditional transport and logistics risks.

Risks that challenge operational resilience

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# Expecting the unexpected

In an age of growing consumer expectations, unprecedented technological change, geopolitical uncertainty and the shifting nature of terrorism, the supply chain has become fraught with potential risk.

We've seen how shocks to the supply chain are almost impossible to predict but occur with regularity. We've also seen how the winners who ride an unpredictable disruptive storm can gain substantial returns from increased output and productivity. This can be achieved by a heightened visibility together with new levels of resiliency including:

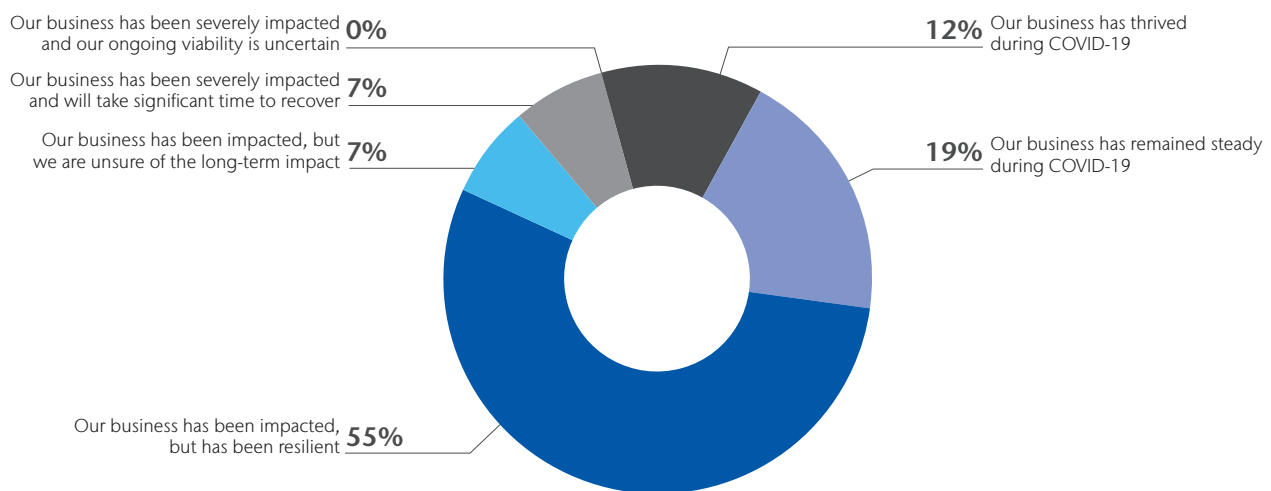
- Being able to move quickly and encompass new technology with digitalised end to end operations
- Better understanding the immediate impact of unpredicted situations to the supply chain
- Ensuring business models include a cross-functional ability in their operations

▶ "As business leaders re-examine the role that operations play in connecting with customers, they're discovering that resiliency is a core competency that cannot be underestimated or quickly added to the agenda in challenging times."

Michal Laguionek, CEO, Lidl (Europe)

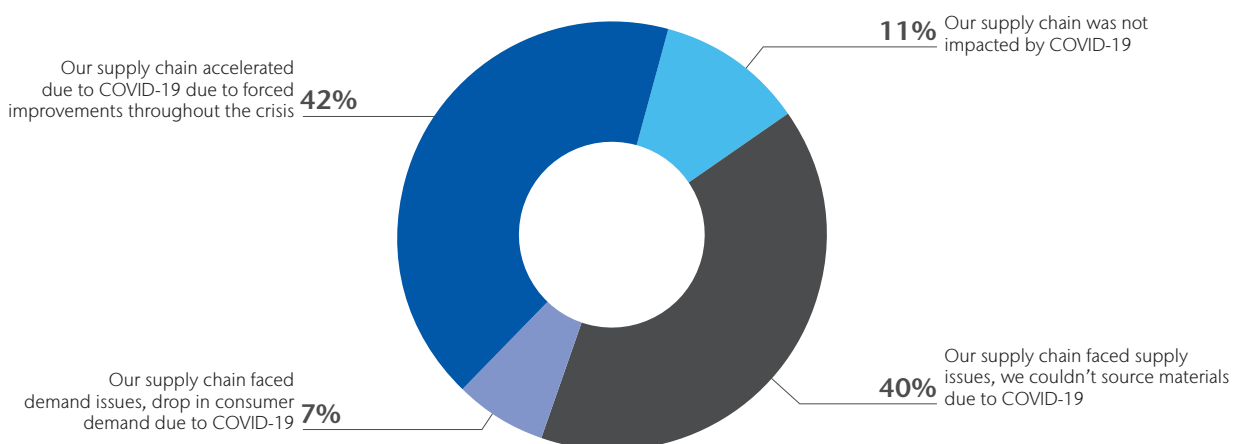
COVID-19 has shone a spotlight on operational resilience in the Food, Agribusiness & Beverage (FAB) industry. Traditionally a resilient and essential sector, some of our clients supplying retailers have experienced unprecedented levels of demand. Conversely, those supplying the food-service channel have seen sharp reductions in demand. This is borne out by Aon research, where 54% state that while their business has been impacted, it has been resilient.

### How would you describe the impact of COVID-19 on your business



This dichotomous COVID-19 impact is further evidenced by the fact that 42% experienced supply chain acceleration, yet a contrasting 40% faced raw material supply issues.

### Proportion of organisations facing supply chain issues



COVID-19 has added to existing challenges relating to food safety and security. Criminal networks have sought to take advantage of those challenges through techniques including cyber/ ransomware, employee social engineering and interfering with supply chain quality.

Source: Reprioritizing Risk and Resilience for a Post-COVID-19 Future



# Managing risks to the supply chain

**There are three key elements affecting the FAB supply chain which are:**

- **meeting the demands and expectations of the consumer**
- **ensuring a company's supply model is as efficient as possible**
- **respecting corporate social responsibilities in an age when brand reputation can be easily damaged or lost**

Within these three elements, there are a range of different risks that can damage each of these components and cause a hit on profits, revenue and reputation. Whether it's a collapsed shipping company stranding cargo in a far off port, a cyber-attack knocking out a data centre, or a terrorist attack preventing deliveries, keeping stores and fulfilment centres well stocked in a timely and efficient way is becoming a challenge of growing complexity and uncertainty.

## Transport & logistics – shipping delays

Supply chains in the FAB industry are complex, global, fast moving, operating on a 'Just in Time' (JIT) basis, and enabled by sophisticated technologies.

The recent Ever Given blockage in the Suez Canal brought the dependency on global shipping infrastructure into sharp focus. With roughly 90 percent of the world's goods shipped by sea, the Suez Canal is one of the most crucial pinch-points along global supply chains.

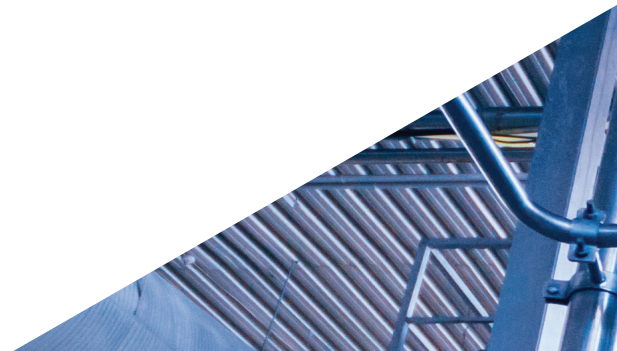
With the Ever Given, itself carrying 20,000 containers, blocking the canal, thousands of ships packed with goods were stuck in holding patterns in the Mediterranean and Red seas while an international rescue mission tried to refloat the ship.

With global trade already challenged by the pandemic, this incident highlights the importance for companies to understand their supply chains, find weak links and take steps to reduce the risks.

Hundreds of thousands of containers of goods were delayed in reaching their destinations, inconveniencing businesses and consumers and impacting the companies that produced them.

The Suez Canal blockage is one of the latest supply chain disruptions but it won't be the last. Businesses should identify their 'crown jewels' then determine who the important suppliers are and the points at which a breakdown could negatively affect their ability to deliver products or services. They can then determine how to address the risk, with options including holding more inventory, identifying suppliers closer to home or explore new logistics options. Brexit is a case in point, with many new shipping routes in place as the UK landbridge route has become less viable with the UK now operating as a third country.

There is a myriad of risks associated with shipping such as port blockages, strikes, vessel engine breakdowns, collisions, stranding and on-board fires that all illustrate the difficulties that commercial entities have with 'just in time' delivery slots.



## Supplier insolvency

While perhaps a less obvious risk to supply chain resilience, an insolvent supplier can send shockwaves through supply chains. Businesses should have a process in place to identify red flags; such as a supplier missing shipping dates or where quality control issues arise.

Where a supplier looks to be in trouble, the solutions are varied, and include offering better payment terms, buying the business, investing in it, or simply dual sourcing the product.

Another option includes developing a supply chain finance solution which allows suppliers to be paid earlier – alleviating any cashflow difficulties they might have – while the FAB business can optimise its working capital without any negative impact on its suppliers.

Supply chain finance can be brand enhancing because suppliers can be paid early which takes away the often-damaging practice of late payment. The manufacturer also benefits from an unsecured line of credit without impacting its existing finance arrangements.

## Changing terror threats

Another potential threat comes from terrorism which has undergone a fundamental shift over the last few years. The challenge has been how to protect a business from losses and a lot of work has been done to broaden insurance coverage.

Further down the supply chain, terrorism attacks can also impact supply and some countries that are part of the global supply chain experience much higher frequencies of terrorist attacks. There is also the broader peril of political violence which could be acts of insurrection, coups, mutinies, rebellions or civil war.

It's a challenge for every company but can be managed by a proactive risk management approach. If a company and its supply chain are in multiple countries it's important to see and understand the risk between each country so it can appropriately align its risk transfer (and risk mitigation) strategy.

▶ **"Resilience is bouncing back from adversity, often to a state stronger and better than before."**

James Dyson, Inventor and Industrial Designer



# Climate change influence

**As costs rise and margins shrink the pressure is on to minimise waste, employ resources efficiently and improve environmental sustainability credentials too.**

Companies need an efficient, end-to-end delivery model enabling flexible, innovative solutions that help cut costs and downtime, ensure operational resilience and product quality and support ever-greater process automation. As climate change makes extreme weather more frequent and severe, it increases the probability of events occurring that are far more intense than current operations in the FAB sector are able to withstand. Industry value chains are now being exposed to many more risks and one of these is climate change.



▶ **"Resiliency is about adaptability in this environment, as well as having a sustainable business for ourselves and for our clients."**

Kathleen McLaughlin,  
Chief sustainability officer, Walmart

## Top climate supply chain risks

### – 1 – Supply chain security

Changes to growing seasons and erratic and reduced rainfall patterns are disrupting raw material availability, quality and costs for processors and manufacturers.

#### Impacts companies

- Decreased productivity due to variable weather and rainfall and prevalence of pests affects availability and increases costs of key inputs such as sugar cane, corn, beets, citrus, coffee, tea, produce and grains.
- Increased risk offers companies an impetus to strengthen supplier relationships and increase oversight of the supply chain.
- Growth of viability in some regions for certain crops creates opportunity to increase local sourcing (especially in higher latitudes) and in turn reduce emissions and logistics costs.

### – 2 – Infrastructure and distribution

Projected rising sea levels and more frequent and severe weather events threaten to increase logistics disruption and costs and heighten risks to physical assets.

#### Impacts companies

- Greater disruptions of operations in supplies and inventory due to flooding, hurricanes, and higher temperatures.
- Higher temperatures will require more efficient heating and cooling systems.
- More distribution network failures from weather damage to public infrastructure, such as roads and ports.





– 3 –

**Evolving consumer demands**

Unpredictable, potentially dramatic changes in temperatures may cause consumer demands and needs to change with the weather.

**Impacts companies**

- Increased demand for cold/refreshing beverages as a result of temperature increases.
- Greater ability to compete on monitoring and prediction of complex, uncertain weather patterns and trends.
- Growth of customer demand for coping with environmental and social challenges, especially in emerging markets.

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**Water scarcity**

Exacerbation of water scarcity negatively impacts operations, suppliers and customers.

**Impacts companies**

- Increased risk of competition for water due to water scarcity in local communities, which may have consequences for cost, reputation, and gaining a licence to operate.
- Declining water availability for growers and food manufacturers with operations in water-stressed areas.
- Industry sometimes negatively perceived as ‘high water users’

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**Workforce stability**

Adverse weather conditions may lead to increases of certain diseases and/or displacement.

**Impacts companies**

- Increased incidence of diseases could affect yield, product quality, productivity and company insurance costs.

# Food industry trends driving digital transformation

**Digital transformation is taking place right across the food supply chain, from farm to fork, with Ag & Food tech growing experientially. Supply chains are highly digitised, and food production is becoming more and more technology-led.**

## Mid supply chain needs for transparency increases the need for the adoption of artificial intelligence (AI) and the Internet of Things (IoT)

Consumers want honesty and transparency and this has filtered up the supply chain, affecting how producers label and produce their products. AI and IoT are technologies that suppliers can now use to prove origin, handling and ingredients. An example of this is smart labels that leverage technology to track and monitor products throughout the supply chain journey.

## AI to optimise food supply chains

Nearly 40% of food waste occurs within food supply chains.<sup>1</sup> This high rate of product loss is wasteful and costly for food companies and is another area where AI is seeing increasing opportunities for adoption. Through the use of AI-assisted analysis, food industry companies can analyse vast amounts of current data that enables them to more accurately gauge market demand. Without real-time data analysis, companies in food supply chains are not able to respond to trends in a timely manner causing unnecessary waste and inefficiencies through the supply chain.

## Food quality management

To remain competitive, companies within the food supply chain are being forced to focus on food quality management practices. Consumers take the highest standards of food safety as a given, which has influenced all levels of the food supply chain from production to transportation and warehousing. Companies operating in food supply chains have to ensure quality standards are not just being adhered to but exceeded. For many food types, even if only one segment of the supply chain is lacking, this can compromise quality and safety. This has led to a key digital transformation through the application of sensor technology which can monitor conditions such as temperature, supply analytics and data. This information can be used to correct these conditions during storage and transportation.

## Logistics and warehousing automation

Predictions show that the current labour shortage in the FAB sector is set to increase and as a result the industry will continue to embrace automation with driverless trucks and autonomous mobile warehouse robotics.

## Expanding data sets increase demand for machine learning

As today's companies begin to rely more on data, they also need the ability to process and clean it. Large companies in the food production industry are collecting vast amounts of data at a rapid rate. Managing, storing, and working with this data can be both costly and labour intensive so machine learning is something that can assist companies in interpreting their data in more meaningful ways.

## Digital marketing

Digital marketing is gaining momentum, and predictions state that digital marketing spending will rise to 49% of all global ad spending in 2021.<sup>2</sup> Some of the key trends taking place are a rise in SEO implementation and social media leveraging. Ad targeting and personalisation are also becoming a growing trend to allow businesses to optimise their marketing processes.

<sup>1</sup> Source: [Supplychaindive.com](https://www.supplychaindive.com)

<sup>2</sup> Source: [Social Media Today](https://www.socialmediatoday.com)

# The digital dangers

**Beyond the physical risks to the supply chain are the risks associated with the increasing reliance on technology. The importance of data centres in supply chains cannot be overestimated and should be regularly stress tested for stock ordering processing and exposures to cyber attacks.**

## Cyber business interruption

Businesses operating in the FAB industry are also realising that beyond data breaches, cyber risks can have a significant business interruption impact on their day-to-day operations. There has been a shift in mindset from seeing cyber risks as purely an IT issue to understanding that this is a broader problem involving people, process and technology. Companies are focussing more on training staff who are in the front line against cyber attacks as well as looking at minimising access that third parties have to their systems. It's crucial that companies identify who their critical suppliers are and get some reassurance as to their resilience when it comes to a cyber event, whether that's through certification or a deeper cyber audit, as well as proof they have effective crisis management and business interruption plans in place.

## Protecting the brand

What all these supply chain risks have in common is the potential to cause significant reputational damage – currently listed as one of the top risks for businesses by Aon's Global Risk Management Survey. Not only have companies got pressure on their supply chain to meet consumer expectations they also have to be very mindful of their corporate social responsibilities. Products coming out of a factory which are unethically sourced, have used slave labour or anything that is deemed to be irresponsible will have a big brand impact. Product Contamination, either by accident or sabotage should be included within an organisation's product safety management procedure as it connects to the reputation (and ultimately value) of the brand and needs to be included and reviewed as part of an overall operational strategy.

## Embracing digitalisation

Being able to move quickly and digitalise all operations is a key factor for the future success of companies. Having a detailed understanding of a supply chain by embracing end-to-end technology enables visibility - from the production of raw materials to the end customer.

This improves the agility and responsiveness of operations without increasing costs and companies can achieve significant improvements in multiple performance measures when they integrate advanced digital technologies. It's a win, win situation with outcomes showing:

- An increase in productivity of up to **90%**<sup>3</sup>
- A lead time reduction of up to **80%**<sup>3</sup>
- Speed-to-market improvements of up to **100%**<sup>3</sup>
- Energy efficiency improvements of up to **50%**<sup>3</sup>

Companies that withstand disruption can come out better on the other side. It's about understanding that resiliency isn't just one issue to be addressed, but a combination of actions, technologies, strategies and goals that are made today and then worked on diligently every day thereafter.

<sup>3</sup> Source: New Grocer Publication March 2021

# Cyber risk and the supply chain

The competitive environment has driven an increased reliance on digital technology – more automation and developments in connectivity for example – that in turn has created more complex, more impactful, exposures to cyber events.

With threats ranging from disruption risk impacting production and distribution, and confidentiality risk to personally identifiable information in terms of the General Data Protection Regulation (GDPR) a company can be hit in many ways.

As well as the physical production with concerns over tampering, theft, or an incident that prevents products from being made or delivered, there is the possible disruption to the key infrastructure in the form of a cyber attack.

There are many actions a business can take to make sure they're not a victim of cybercrime. This includes developing a cyber defence system on the assumption that a business will be breached.

Cyber security is not just a technology problem. The vast majority of attacks result from a person making an error such as clicking on a suspicious link. It's about making sure that awareness is raised with all employees. It's also important that physical and cyber security are connected as hackers might not just attack from a computer but might use lax physical security to gain access to a network.

It's key that companies try to understand who might be trying to attack them – such as hackers, criminals or an insider – and the kind of methodology they might be employing and what their ultimate aim is. Vendors are becoming increasingly interconnected and there is less visibility over who has what data - who is the data owner and who is the data processor. Not understanding where data lies in the supply chain can be a big issue.

## Concern around cyber risk is high for FAB companies



**78%**  
rank **cyber risk** as a  
top five corporate threat



**50%**  
say **time, talent, and awareness**  
are major challenges to effective  
cyber risk management

**35%**

have **no method** of  
measuring cyber risk  
exposures

only

**31%**

are **highly confident**  
in their ability to  
manage cyber risk

**30%**

**do not quantify**  
the economic cost  
of cyber risk

While innovative technologies are transforming business models, they are also creating new points of vulnerability to access and disrupt critical systems, networks, and hardware. Breaches can destroy operations and supply chains, resulting in significant revenue loss, huge costs and reputational damage.

# Building a cyber resilient organisation

**In terms of preparing a business to be a resilient organisation, it's important to approach risk management with an enterprise-wide view. From a supply chain perspective, supplier contracts and limits of liability based on the exposures they could introduce need to be evaluated on a regular basis.**

A data driven approach to cyber risk management is critical and developing scenarios with clear parameters that can be quantified in financial terms is important. Quantification is an important step in allowing informed decisions on how exposures are managed and how an allocation of a cyber risk management budget should be allocated. This optimises the blend between technical control improvement, crisis management, business continuity planning, supplier contracting and risk transfer.

## Meat giant pays \$11m in ransom to resolve cyber-attack

The world's largest meat processing company has paid the equivalent of **\$11m (€9.1)** in ransom to put an end to a major cyber-attack. Computer networks were hacked shutting down operations across Australia, Canada and the US. The payment was reportedly made using Bitcoin after the networks went back online. The organisation said "it was necessary to pay the ransom to protect customers" and added that "it paid the money because of the sophistication of the attack". The disruption threatened food supplies and risked higher food prices for consumers as well as the risks associated with trust, reputation and ultimately share value.

Source: <https://www.bbc.co.uk/news/business>



# How can Aon help?

**Trends in economics, demographics and geopolitics – compounded by the rapid pace of technological change and the impact of the pandemic – are creating unprecedented volatility. Here at Aon, we have an understanding of the risks organisations face and as a result we can support and advise on the best way to achieve operational resilience. We work closely with our clients by taking a holistic approach to risk advisory, risk transfer and structured solutions that help better identify, quantify and manage today's evolving risk exposures.**

## Supply chain proposition

Aon's supply chain proposition offers advice, risk solutions and financial products across business interruption, credit, ESG, cyber, IP and risk governance that are focused on helping to:

- Better understand risk in a supply chain - the most critical bottlenecks and the profile of risk issues facing suppliers
- Value the risk through economic modelling, quantification and use of data/analytics
- Address exposures through pre-emptive and reactive risk controls
- Match insurer capital to exposures through improved risk insights and the development of new supply chain products
- Join the dots around a common supply chain risk nomenclature to ensure consistent decision making

## Supply chain financing

With traditional forms of business funding still proving difficult, many businesses are turning to supply chain finance as an alternative way to boost their working capital. It's an innovative way to help manage liquidity risk and provide an unsecured line of credit that doesn't impact on the existing finance arrangements. Supply chain finance allows businesses to pay its suppliers while it can benefit from extended credit terms with no additional security as it's insurance backed.

## CyQu online cyber assessment

CyQu is Aon's online cyber risk self-assessment. Companies can get instant visibility on how their cyber risk posture measures up against a variety of critical control domains including: Remote Work, Data Security, Access Control, Network Security and more. Quick wins can be identified with key areas of improvement that a company needs to prioritise on to help enhance the current level of security performance. A CyQu score is benchmarked against industry targets, giving insights into how a company stacks-up across each of the domains. CyQu identifies areas of vulnerability which need to be addressed.

## Climate change risk

Aon's Climate Risk Advisory team actively supports clients to identify their risks and opportunities emanating from climate change. Risks can be quantified over different future scenarios and a sound strategy for resilience can be developed and implemented - aligning with client expectations, shareholder values and regulatory landscapes.



**"A more resilient supply chain in terms of environmental practices today makes for better resilience and flexibility in the future."**

Ivan Manuel Menezes, CEO, Diageo

## Environmental solutions

We can support and advise companies to innovate and grow profitably whilst doing the right thing for the environment, their people, customers and shareholders as well as playing a part in improving health and nutrition. We have environmental risk modelling solutions that can help clients develop sustainability initiatives that include carbon emissions, carbon foot-printing, carbon credit verification and other greenhouse gas and global warming concerns.

## The future workforce

Here at Aon, we can support organisations to empower their workforce resilience and agility including future skills, Diversity, Equity & Inclusion and Wellbeing.

### Future skills

We have done a lot of research into understanding what's important for future success. We can help organisations identify future leaders, find employees with the capacity to learn and adapt, mitigate employee turnover, manage future talent gaps and maximise the retentive power of any people programmes in place.

### Diversity, Equity & Inclusion (DE&I)

We can enable DE&I through attraction, development and retention by:


*Attracting:* Creating a 'candidate centred' recruitment journey including job relevant assessments enabling bias free and inclusive hiring.

*Developing:* Identifying high potential or hidden talent using robust, scientific and data-based assessments.

*Retaining:* Democratise career development and learning opportunities linked directly to interests and business needs.

It's impossible to predict the future, but a business can prepare for change. Agility and resilience are two sides of the same coin. Where resilience is the ability to bounce back, agility is the ability to bounce forward. We can help organisations build an agile and resilient workforce that drives digital transformation and navigates disruption by:

- Identifying risk of burnout and mitigating associated risks including medical claims and subsequent increases to insurance premiums.
- Reducing your operative risk by helping you hire talent aligned to associated and identified behaviours needed for fewer accidents and incidents.
- Enable a structured 'career wellbeing programme' with an agile workforce who can re and up skill as job requirements change as well as driving employee choice and ownership around career paths.

 "Resilience is an internal trait, but the disciplines and strategies that support it can also have a far wider reach."

Grant F. Reid, CEO Mars Inc

## About Aon

Aon plc (NYSE:AON) is a leading global professional services firm providing a broad range of risk, retirement and health solutions. Our 50,000 colleagues in 120 countries empower results for clients by using proprietary data and analytics to deliver insights that reduce volatility and improve performance.

Our EMEA Food, Agribusiness and Beverage Industry Sector is a team of 50 senior colleagues across the region, specialising in industry risk, including insurable, uninsurable and emerging risk. At Aon, we connect the capital to the risk by working with our clients to identify, assess, quantify, finance and manage risk. We have many active industry partnerships including Associate Member of the Food & Drink Federation; European Federation of Health Products Manufacturers (EHPM) and The European Plant-based Foods Association.

This paper constitutes information only and is not intended to provide advice. Professional advice should always be sought regarding insurance coverage or specific risk issues.

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