



CHINA & TAIWAN: OVERCOMING SUPPLY CHAIN DISRUPTION THROUGH DIVERSIFICATION, AI & ERP



With the growing tension and increasing potential of conflict between global supply chain capitals, China and Taiwan, it's now evident businesses, and indeed economies, must safeguard their logistics against disruption to ensure stability and growth.

The risk of global disruption as a result of political tension, alongside the pandemic, has highlighted worldwide dependency on East Asia to sustain trade and supply across regions and industries. Further to this growing threat is the likelihood of decoupling, with strong indications regions may be moving toward segmented globalisation.

It has become apparent that, should businesses fail to protect themselves in an increasingly volatile and complicated global trade landscape, they risk the impacts of a compromised supply chain and threats to their long-term competitiveness and survival.

However, Australian business and government leaders are uniquely positioned to benefit from diversification of supply chains, in addition to consolidation of local manufacturing capabilities.

By playing to our collective competitive advantages, and critically, building technological capability, local leaders must explore strategies to overcome supply chain disruption. We discuss this landscape and look at the integration of ERP and AI as fundamental to drawing insights from the limitless variables that need to be considered in manufacturing and supply chain decision-making - paving a logical path towards true cloud-based business empowerment.

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THE FACTORS INFLUENCING GLOBAL SUPPLY CHAINS



Reading time:
2 Minutes



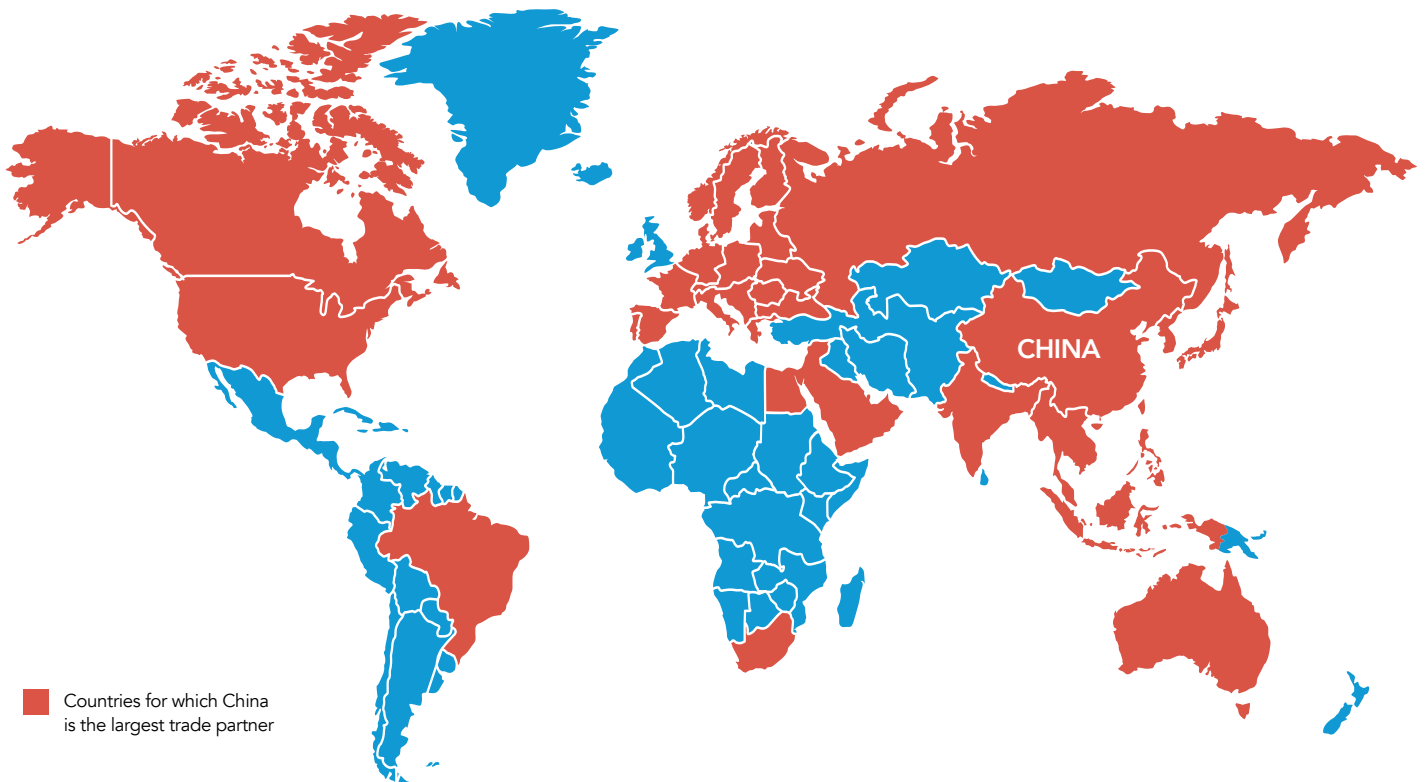
NEW NORTH: THE FACTORS INFLUENCING GLOBAL SUPPLY CHAINS

The last few decades gave rise to globalisation and companies embraced international supply chains to maximise production opportunities and cost efficiencies. Now, these carefully architected systems put the businesses that built them at risk due to a confluence of external forces.

Supply chains have changed dramatically over the course of a few short years. The supply and demand shock experienced by the global economy as entire regions locked down in the wake of the COVID-19 pandemic cannot be overstated. The sudden upheaval exposed vulnerabilities in the supply chains of businesses everywhere.

Combining these trade restrictions with geopolitical tensions, including the U.S./China trade war, the invasion of Ukraine by Russia, and animosity between China and Taiwan, businesses have been left scrambling for supply and production strategies that can ensure continuity amidst virtually limitless possible scenarios.

At the centre of all scenarios is the supply capital of the world; China.



UNREST IN EAST ASIA

The growing tension between China and Taiwan was amplified earlier this year when Beijing launched a series of military exercises in the skies around Taiwan, including the deployment of missiles. The display was in response to a visit to Taiwan by US House Speaker, Nancy Pelosi.

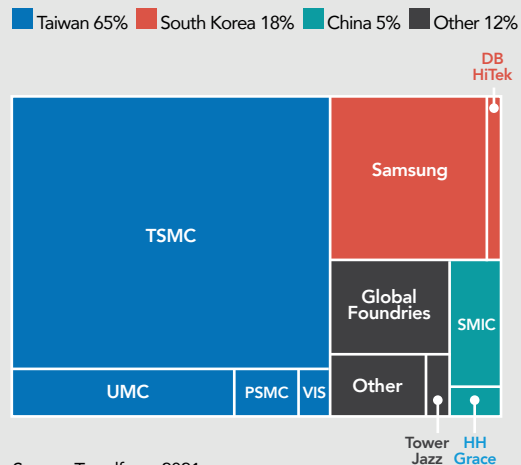
One of the world's busiest shipping lanes, the Taiwan Strait, sits between Taiwan and China. Just under half the world's container ships and 88% of the world's largest ships by tonnage passed through¹ the narrow Taiwan Strait in the first half of 2022.

In the event of conflict, trade disruptions are expected across Taiwan, China, South Korea and Japan. Due to the intrinsically interconnected nature of global supply chains, the repercussions are likely to be felt heavily by businesses globally - regardless of size, industry and location.

These effects are already being felt by companies making use of semiconductors. Taiwan Semiconductor Manufacturing Co (TSMC) is the world's largest contract manufacturer of semiconductor chips, which are used to power everyday electronic items across the world in the foundry market. A semiconductor supply problem already exists, due to factors including COVID-19 and the rise of 5G which increased demand, with wait times for products like new cars stretching beyond 10 months. These supply constraints have and will continue to affect a range of chip utilising industries across consumer and industrial sectors.

If, or when, conflict does eventuate in East Asia, we will see the challenges already being faced on a much larger scale.

Global foundry market share, by country and company 2021



Source: Trendforce 2021

According to the ABS², 88% of businesses are facing domestic and international delivery delays. Supply constraints are being felt by 80% of businesses and 75% have seen increased prices (including transport costs).

1. Varley, Kevin, 'Taiwan Tensions Raise Risks in One of Busiest Shipping Lanes', 2/8/22, <https://www.bloomberg.com/news/articles/2022-08-02/taiwan-tensions-raise-risks-in-one-of-busiest-shipping-lanes>
 2. Australian Bureau of Statistics, 'Less businesses with supply disruptions', 4/3/22, <https://www.abs.gov.au/media-centre/media-releases/less-businesses-supply-disruptions>

CHINA THE WORLD'S TRADE NERVE CENTRE

Australia has been aware of its dependence on China for some years now. Investors were moving away³ from China as early as 2020. Australia's FDI (Foreign Direct Investment) more than halved in 2021, demonstrating the perceived risk of China's presence. However, China is Australia's sixth-largest foreign direct investor, contributing \$44 billion⁴ in 2020.

The dependency of Australia, alongside the rest of the world, on China was made painfully evident by COVID-19. Extended lockdowns in China caused significant supply chain turmoil. The recent lockdown imposed on Shanghai, the country's economic powerhouse, saw a citywide lockdown for 60 days, from April to June in 2022, exacerbating already significant disruptions to global supply chains. will see the challenges already being faced on a much larger scale.



3. Hu, Diane, The University of Melbourne, 'China and Australia: Economic decoupling?', 2/4/22, <https://asialink.unimelb.edu.au/insights/china-and-australia-economic-decoupling>

4. Department of Foreign Affairs and Trade, 'China country brief', July 2021, <https://www.dfat.gov.au/geo/china/china-country-brief>



IS THE FUTURE SUPPLY CHAIN DECOUPLED?



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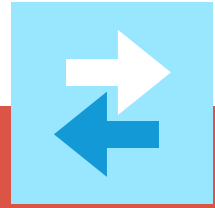


IS THE FUTURE SUPPLY CHAIN DECOUPLED?

A growing number of businesses are taking action in response to the increasingly volatile global marketplace, including decoupling supply chains and repositioning production facilities.

While many business executives resist the notion of decoupling from China due to the time and resources which have been spent on nurturing a beneficial trade relationship, it's a solution that could continue to gain traction. China has been reducing its dependence on foreign entities for over 15 years⁵, and it's projected this strategy will continue. In 2019, the Chinese government launched 'Made in China 2025', a program aimed to make China less dependent on other regions for advanced technologies and position the country as a dominant leader in high-tech manufacturing.

Globally, significant decoupling of existing supply chains is already underway. In EY's 2022 Industrial Supply Chain Survey⁶, 53% of respondents said they have near or re-shored at least some of their operations in the past two years. Of all respondents, 44% are planning new or additional near-shoring activities in the next two years.



Re-shoring is the practice of transferring a business operation that was moved overseas back to the country from which it was originally relocated.

Near-shoring is the transfer of a business operation to a nearby country, reducing some supply chain risk.

Friend-shoring or ally-shoring aims to build relationships with a select few amicable regions for the purposes of mutually beneficial trade relations.



Onshoring
(Same country)



Nearshoring
(Neighbouring country)



Offshoring
(Distant country)

5. Black, J. Stewart, and Morrison, Allen J., The Strategic Challenges of Decoupling, June 2021, <https://hbr.org/2021/05/the-strategic-challenges-of-decoupling>

6. Dharmani, Sven; Jenner, Frank; Knizek, Claudio, 'Why global industrial supply chains are decoupling', 13/6/22, https://www.ey.com/en_gl/automotive-transportation/why-global-industrial-supply-chains-are-decoupling

THE RIPPLES OF DECOUPLING

Should decoupling continue, the trend could significantly alter global commodity trade and prices. A prime example of decoupling's potential impacts on commodity prices emerged in the immediate weeks following Russia's invasion of Ukraine. The sharp drop in the prices of many Russia-related assets (for example, wheat, barley and fertiliser) left investors facing substantial margin calls.

The result of global decoupling could result in inconsistent global prices for commodity markets. This would mean more regional or direct negotiations between countries and indeed businesses, with the potential for increased tariff outcomes. The power of tariffs was demonstrated in 2020 when China imposed import taxes on barley, beef, wine, wool, and several other commodities, in response to Australia's call for a COVID inquiry re-shored at least some of their operations in the past two years. Of all respondents, 44% are planning new or additional near-shoring activities in the next two years.

We are also seeing early indicators of price controls, which were largely abandoned after the 1970s as policy shifted towards reduced government intervention. However, with commodity markets becoming the battleground for economic war, governments are now being forced to play a larger role.

Nowhere is this more currently evident than in Russia. In September 2022, the G-7 group pledged to enact a plan to limit the profit Russia is able to make from oil sales. This would effectively cap the prices of Russian crude.

At the same time, the European Commission expressed the need for an "emergency intervention and a structural reform of the electricity market"⁷ in response to surging power prices and Russia cutting off westward gas movement.

More broadly, it's evident the world may potentially trend toward individual, regionalised contracts and away from globalised standards. Global decoupling may or may not come to fruition. However, a prolific and steadily growing number of variables well beyond the control of any business presents serious issues of complexity to supply chains.

It is no longer a question of *if* sustained disruption will occur, but when. Without the appropriate safeguarding and innovative risk management strategies, businesses face significant threats to survivability and those unable to adapt will likely be left in the pages of history.



Pricing may get that much harder.

Decoupling significantly increases the complexity of variable inputs, forecasts and risks in business supply chains.

7. Krukowska, Ewa, EU Plans to Intervene in Energy Market as Winter Crisis Looms, 29/8/22, <https://www.bloomberg.com/news/articles/2022-08-29/eu-plans-emergency-intervention-to-stem-surging-power-prices>



REACTIVE VS PROACTIVE GLOBAL RESPONSES TO DATE

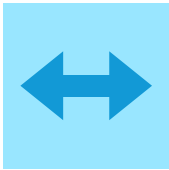


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REACTIVE VS PROACTIVE GLOBAL RESPONSES TO DATE

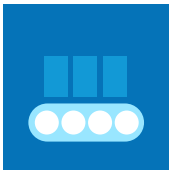
To adapt and safeguard their supply chain, businesses have been experimenting with a variety of strategies:



Broadening and diversifying supplier relationships, prioritising a multi-regional supplier base.



Investing in supply chain traceability technology, which enables inventory to be tracked as it moves along the supply chain.



Automation, including IoT, robotics, AI (Artificial Intelligence), to streamline previously manually and time intensive tasks.



Reshoring, bringing manufacturing and production processes back to the home country



Friendshoring with a network of trusted suppliers from amicable countries that offer independent supply pathways.



Sourcing flexible suppliers who have alternative supply paths which do not need to pass through East Asia.

Of these strategies, the tendency to seek suppliers in the company's home country, or an amiable regional neighbour, is emerging as one of the most favoured.

CLOSER TO HOME

EY's Industrial Supply Chain Survey⁸ found that 57% of respondents have established new operations in one or more additional countries over the past two years, with a further 53% planning to do so in the next 24 months.

Among Wild Tech customers with US-based parent company operations, many are looking down and up to Mexico and Canada to solve supply and demand challenges. Mexico's economy is booming, with strong U.S. demand and exports surpassing \$80 billion⁹ in just the first two months of 2022.

American companies have been found to increase their shipping rate by 80% with a 75%¹⁰ Cost reduction when moving processes to Mexico, compared with China. Mexico also has excellent trade relations, with 14 free trade agreements across more than 50 countries, meaning companies face fewer restrictions when operating within this economy of 128 million people.

WHERE IS THE NEXT GREAT MANUFACTURING POWER?

Global foreign investment in the countries comprising the Association of Southeast Asian Nations (ASEAN), including Cambodia, Indonesia, the Philippines, and Indonesia, totalled US\$731 billion in 2016-2020¹¹. This surpassed investment in China, which amounted to US\$698.9 billion. These figures are enough for the Federation of Korean Industries (FKI) to suggest ASEAN may be claiming China's role as the "workshop of the world".

India, in particular, may be poised as a strong contender to potentially replace China as the world's manufacturing nexus. Already one of the leading sourcing partners across multiple sectors, including eyewear, jewellery, fashion accessories and footwear, India is reportedly preparing a large area of land twice the size of Luxembourg to offer companies wanting to move their manufacturing out of China.



"As an Australian manufacturer, we're focused on backup supplies for all materials sourced from areas we may deem risky, while aiming to maintain buffers on resources vulnerable to supply chain shocks. We're fairly lucky in that back up supplies we have are sourced from close regions with good turnaround times, so if anything did occur we can pivot fairly quickly to ensure we are covered."

**Alex McWilliam, General
Manager RBM Plastics**

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8. Knizek, Claudio, Why global industrial supply chains are decoupling, 13/6/22, https://www.ey.com/en_gl/automotive-transportation/why-global-industrial-supply-chains-are-decoupling
 9. Averbuch, Maya, 'Mexico's Border Bonanza Shows U.S. Importers Looking Outside China', 5/5/2022, <https://www.bloomberg.com/news/newsletters/2022-04-05/supply-chain-latest-mexico-gains-as-companies-near-shore-from-china>
 10. Rivera, Isaias, American Industries, 'Top Five Reasons to Expand Operations to Mexico', <https://www.americanindustriessgroup.com/blog/top-five-reasons-expand-operations-mexico/>
 11. Young-bae, Kim, 'Southeast Asia replaces China as "world's factory"', 18/8/21, https://english.hani.co.kr/arti/english_edition/e_business/1008173.html



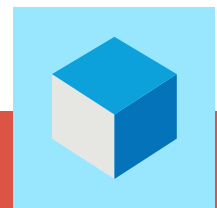
However, India does not, as yet, have the same integration with major global supply chains as China - lacking breadth and depth in trade agreements. India's somewhat stringent regulations and "volatile" relationship with FDI may be enough to dissuade some companies from considering them as a core manufacturing partner.

On the positive side, our bilateral relationship with India has recently gained momentum with the Australia-India Economic Cooperation Trade Agreement (AI ECTA), which was signed in early 2022, and is set to facilitate greater trade freedoms between Australia and India. The partnership is being touted as a foundational springboard for Australian and Indian businesses alike, amid geopolitical uncertainty.

THE END OF "JUST IN TIME"?

Whichever way companies look to source materials, they must continuously assess the efficacy of traditional inventory management models. This may mean move away from the "just in time" (JIT) philosophy which has dominated manufacturing and inventory management for years, wherein the goods are received from the supplier only when they are needed. Instead, businesses are moving reflexively to a "just in case" (JIC) strategy. A JIT supply chain operates on the basis of anticipating demand and focuses on keeping a large standing inventory.

Schneider Electric¹² is one such company that has transitioned to a resilient JIC model. It's also embracing fewer, deeper supplier relationships, alongside drastic changes to its factories. In its Cedar Rapids, Iowa, facility, \$40 million is being spent on new production capabilities that will allow the company to finish some of its own inputs in-house, while working with fewer suppliers.



A 2022 survey found that 61%¹³ of companies had increased inventory of critical products and 55% had taken action to ensure they had at least two sources of raw materials.

12. Cosgrove, Emma, 'Schneider Electric invests \$40M in supply chain upgrades to prepare for post-pandemic demand', 12/11/20, <https://www.supplychaindive.com/news/Schneider-electric-40M-supply-chain/588907/>

13. Edgecliffe-Johnson, Andrew, and Masters, Brooke, 'How just-in-time became just-in-case', 21/12/21, <https://www.afr.com/policy/economy/how-just-in-time-became-just-in-case-20211221-p59j9e>



AN EMERGING OPPORTUNITY FOR AUSTRALIAN MANUFACTURING



Reading time:
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As companies eagerly seek to calculate alternative supply chain channels and manufacturing production partners, one cannot look past Australia and the possibility of bringing some of these core processes onshore.

A BRIEF HISTORY OF MANUFACTURING DOWN UNDER

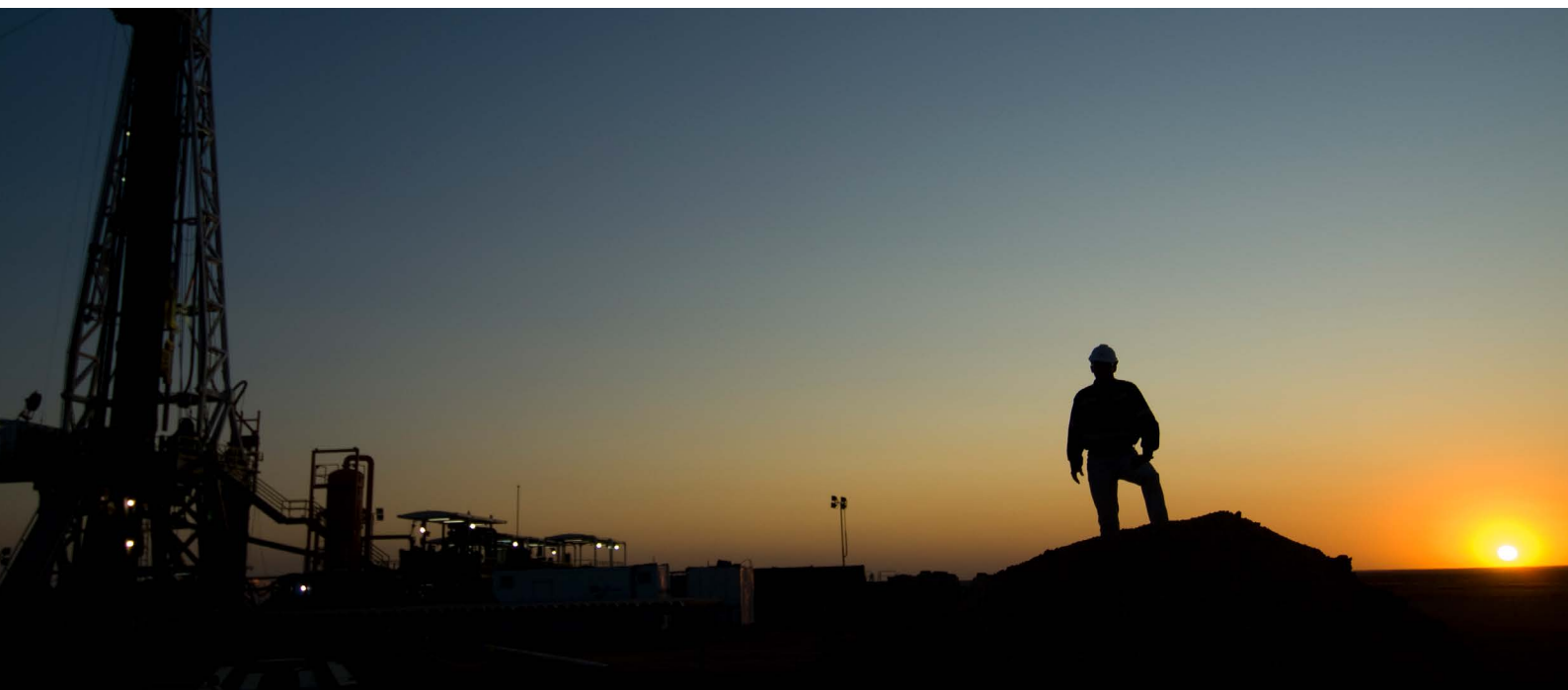
The manufacturing sector's role in the Australian economy has changed consistently over the past half-century.

In the mid-1960s, 25%¹⁴ of Australia's working population was employed in manufacturing, and the industry accounted for approximately one-

fifth of the average growth in the economy. The employment rate has now dropped to 6.4% through the elimination of tariffs, and a lack of investment in technology or productivity driven microeconomic reform to maintain competitiveness against our emerging trading partners..

Although the sector has continued to grow, other sectors have grown faster with manufacturing seeing the slowest growth rates among 17 industry divisions. From 1974-75 to 2001-02 manufacturing grew at 1.65%, compared to communication services for example with a growth rate of 7.92%.

Ultimately, an opportunity has been missed. Not to maintain our traditional capability, but rather to transition into a modern and digitised industry that firmly positions us at the forefront of global advanced manufacturing.



14. Productivity Commission, 'Trends in Australian Manufacturing: Commission Research Paper', 2003, <https://www.pc.gov.au/research/completed/manufacturing/tiam.pdf>

MADE IN AUSTRALIA

The Government is reviewing the nation's onshoring capabilities, recognising that the time to harness home manufacturing potential is now. There is a firm opportunity to build on Australia's COVID-inspired resurgence and re-establish the country as a key global manufacturing contender.

Public sentiment is strong, with the AMGC's (Advanced Manufacturing Growth Centre) survey¹⁵ revealing that the majority (72%) of Australians believe local manufacturing is important or very important to the economy and Australia's standard of living. This has increased from 65% in 2019. "In tragedy lies opportunity, and we have a real chance to seize this moment and lay the foundations for a renewed focus on manufacturing in our country," says Professor Emily Hilder, Director of UniSA's Future Industries Institute.

Australia has a wealth of resources and is one of the world's leading producers of bauxite (aluminium ore), iron ore, lithium, gold, lead, diamond, uranium and zinc. With electric battery solutions at the forefront of the global renewable energy economy, it's worth noting Australia supplies about 60% of the world's lithium.

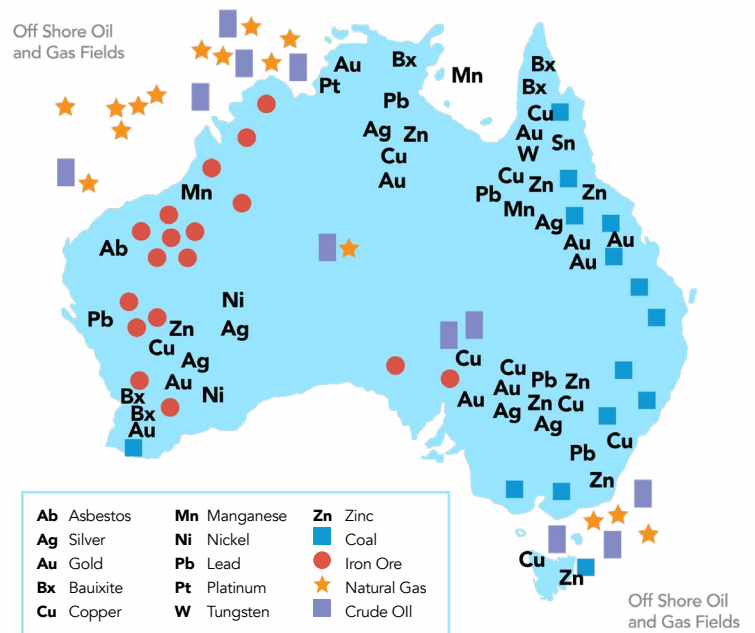
The country also has immense sand deposits of limonite, zircon and rutile. Australia also produces large quantities of black coal, manganese, antimony, nickel, silver, cobalt, copper and tin. With 80% of the world's rare earths being imported from China, we are ultimately well placed to avert concentrated global risk. Iluka Resources is one such company building Australia's first fully integrated rare earths refinery.

Australia is arguably positioned as the best-equipped country to emerge as primary producers of energy and renewables. "Australia has the best renewable resources, and if we look heavily upon

that in the future, Australia could be producing our iron ore from hydrogen to create green steel," says Jeff Lang, Executive Chairman of Titomic, an Australian metals manufacturer. "Instead of selling our dirt, we should really start building value chains around those commodities, and then build a local manufacturing industry around that, too."

However, Government action and investment will be key to identifying opportunities and building Australian capabilities. For onshore manufacturers, investment in new technologies will be of the highest priority. The government has indicated they are willing to support these 'homegrown' plans with their announcement of the \$1.3b Modern Manufacturing Initiative, \$107.2m Supply Chain Resilience Initiative, and the \$52.8m Manufacturing Modernisation Fund. footwear, India is reportedly preparing a large area of land twice the size of Luxembourg to offer companies wanting to move their manufacturing out of China.

With such varied and substantial stockpiles of resources, in addition to vast areas of open land, we are well positioned to emerge as a primary producer in this new world. Rather than selling and exporting resources to foreign economies, there exists an opportunity to onshore those value chains and foster a local manufacturing industry.



15. Australian Manufacturing Growth Centre, 'Perceptions of Australian Manufacturing', September 2021, <https://www.amgc.org.au/wp-content/uploads/2021/09/AMGC-Public-Perceptions-Report-2021.pdf>

AN EMPOWERED DIRECTION FOR AUSTRALIAN MANUFACTURING DECISIONS

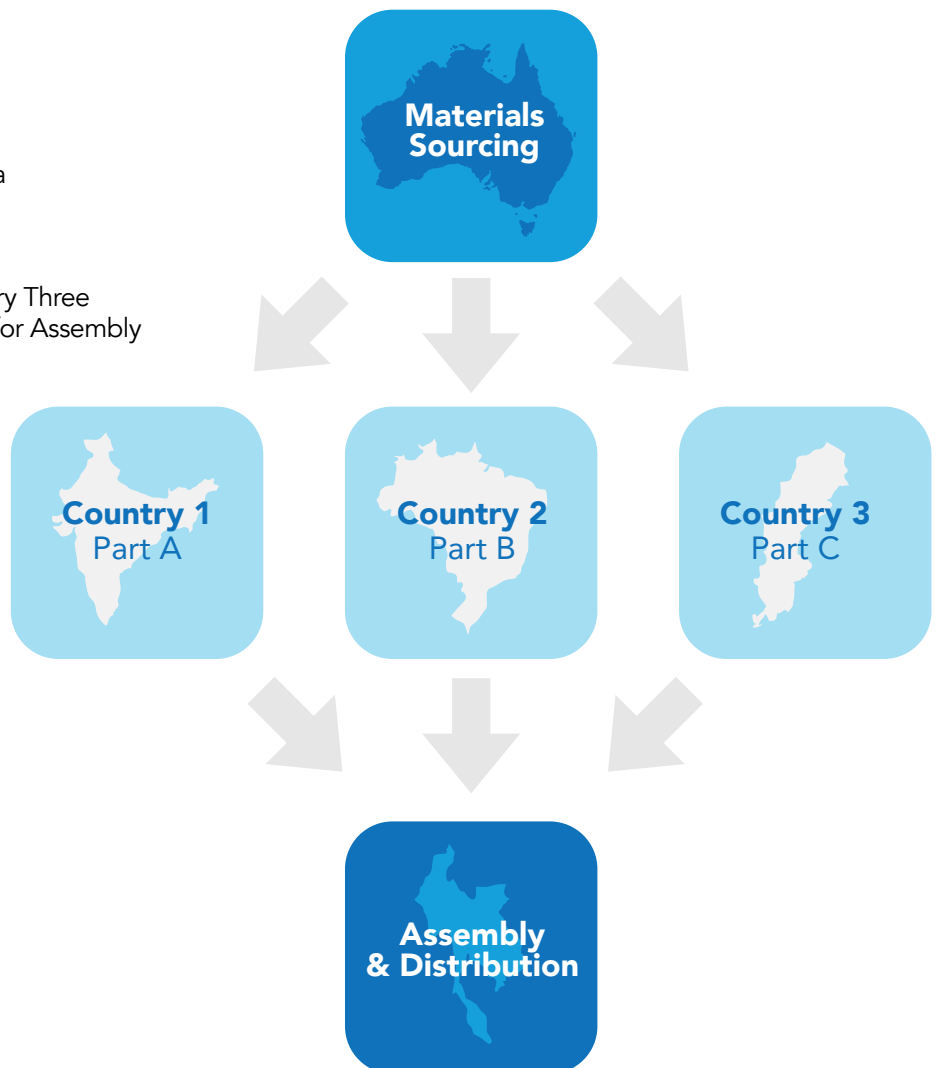
With ongoing volatility in foreign markets, Australia represents a safe haven to mine, process and produce key global resources, particularly critical minerals in advanced manufacturing opportunities.

The old world had many Australian businesses sending raw materials to China, in order to eventually buy them back after being manufactured. However, leaders tomorrow will need to adequately assess new capabilities in our own backyard, price-in ever changing global conditions in commodities and geopolitical environments, evaluate available alternative supply routes, and leverage the increasing opportunities to spread manufacturing supply chains incrementally in order to simultaneously mitigate risk, and maximise resourcing investment.

A FUTURE SUPPLY CHAIN

A future supply chain may have you:

- Sourcing Raw Materials in Australia
E.g. Bauxite, iron ore, lithium
- Building Part A in Country One
- Building Part B in Country Two
- Building Complex Part C in Country Three
- Having it all sent to Country Four for Assembly and Distribution to Markets





CREATING THE TECHNOLOGY WE NEEDED YESTERDAY



Reading time:
1 Minute



CREATING THE TECHNOLOGY WE NEEDED YESTERDAY

With an endless array of global factors and possibilities at play, attention must then be turned to the IT systems underpinning supply chains.

As it stands, the majority of supply chain programs and systems are designed to rely on China as their central source and passing point. Should companies seek to protect themselves from over-dependency, these systems need to shift to leverage the global marketplace more holistically.

The shift to multi-geographical systems also involves the capability to consider multiple governments, political agendas, taxation policies, and trade relationships.

While many progressive companies already leverage ERP, there are still limitations to what most systems can achieve. They may be informed by manual data entry and, where automation is embedded, it's usually set to fulfil tasks based on historical data rather than the unprecedented plethora of real time moving variables and metrics pervading our trade environment. Simply put, ERP only starts the journey as a critical first step.

What is now needed is to embed AI analysis and assessment capabilities into logistics, supply chain and ERP systems which will equip organisations with the flexibility and agility to shift their processes based on ever-evolving global circumstances.

This, in turn, informs other core business processes with invaluable real-time data. With embedded metrics tracking inputs like commodity prices, trade agreements, geopolitical tensions, climate risk, carbon emissions, waste, and pollution, organisations could access a real-time view of financial, logistical, social and environmental data which is otherwise unattainable through manual processes.

1960s-70s



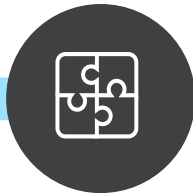
Manufacturers develop basic material requirements planning (MRP) systems

1980s



MRP II systems debut with more capabilities, facilitating detailed production schedules using real-time data

1990s



Enterprise resource planning (ERP) systems emerge, integrating all business functions

2000s-2010s

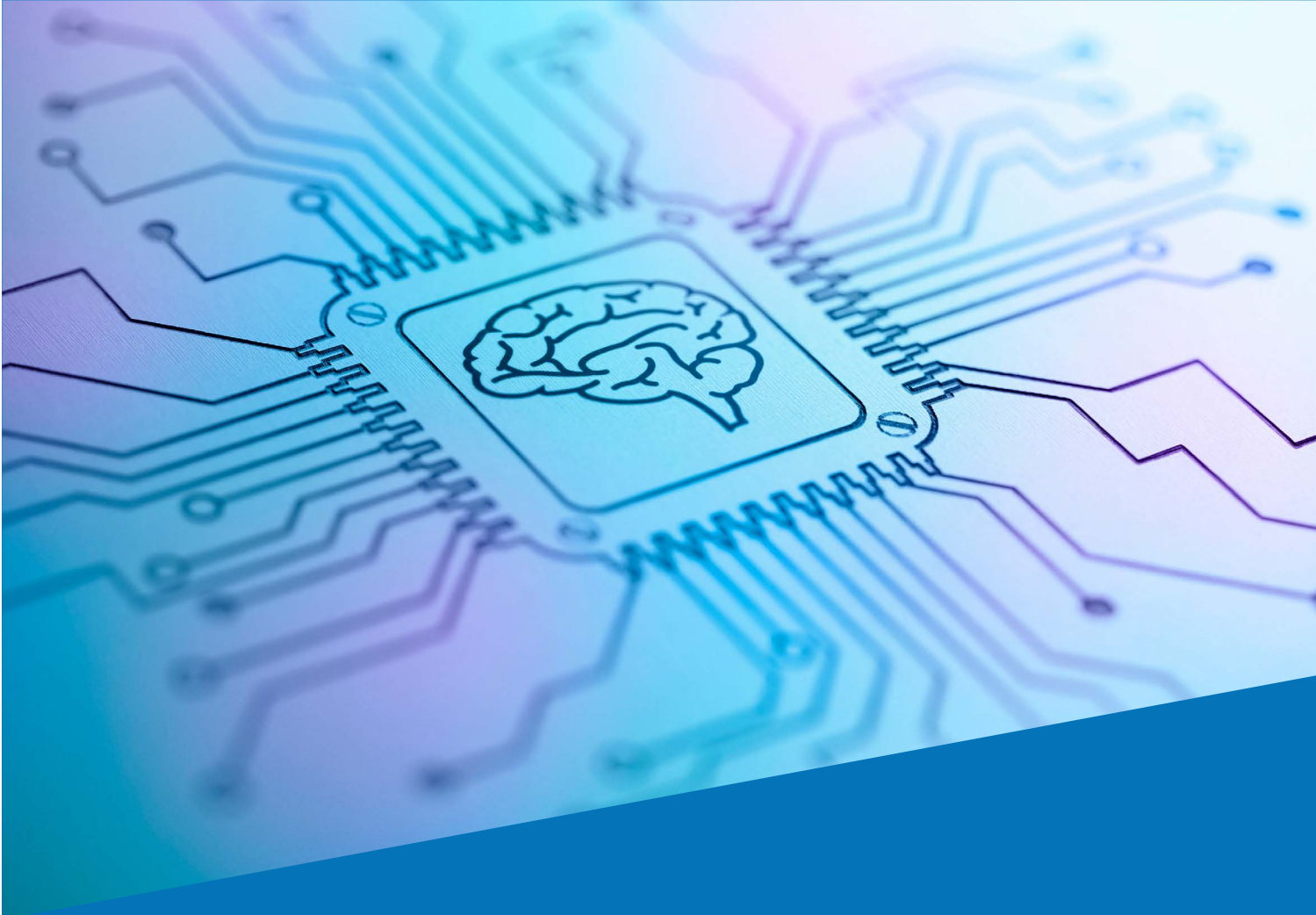


Internet-enabled ERP systems as cloud ERP gains traction and starts to leverage more data in real time

2020s



The Future of ERP Integrating with AI to seamlessly leverage seemingly infinite processes and data variables in real time through IoT and machine learning in order to provide insights and global decision making capability.



INTEGRATING AI AND ERP



Reading time:
3 Minutes



While industries have long relied on 'traditional' supply chain management methods, the pandemic and recent geopolitical upheaval have demonstrated that these archaic processes are no longer sufficient for success in the current climate.

Yet a recent study by McKinsey found that 80%¹⁶ of manufacturers across Asia continue to follow traditional S&OP (sales and operations planning) processes, with limited automation or real-time decision-making capabilities. Companies are often reliant on outdated data and legacy IT systems.

Organisations who continue utilising traditional supply chain planning methodologies expose themselves to significant risks, including product shortages, escalating costs and missing inventory.

ERP A STARTING POINT

ERP was one of the most commonly used technologies by businesses over the past 12 months, according to CPA Australia's 2022 Business Technology Report¹⁷. This trend reflects the greater priority now placed on supply chain transparency and visibility.

ERP systems, when acquired from and deployed by knowledgeable partners, can consolidate supply chain operations, provide visibility and streamline processes through a single dashboard. Companies using ERP experience several tangible benefits, including:

- Efficient management of demand and procurement
- Less human error through automation
- Enhanced real-time resource visibility
- Optimised IT, operational and training costs
- Complete traceability of process flow
- Improved planning and reporting with data driven insights



Only 5% of organisations use their ERP effectively to create and augment high-quality data.

However, many companies continue to conduct ERP through manual processes, often involving time-consuming data entry. This is inefficient, resource-intensive and leaves room for human error.

The incorporation of AI in ERP and supply chains presents a new plane of data transparency. By embedding metrics in core business processes that measure factors such as climate risk, carbon emissions, and waste and pollution, across both upstream and downstream supply chains, organisations can access a continuous view of financial, social and environmental data that manual processes simply cannot offer.

THE POSSIBILITIES OF AI....WHAT IF?

One survey by PwC found that 48%¹⁸ of business leaders are currently using AI to inform supply chain decision-making. Meanwhile, 54% of business leaders are planning to use AI-powered simulations to optimise supply chain operations.

The benefits of AI are widely touted, but underexplored. Capable of interpreting vast amounts of data to provide simulations and what if scenarios, the increased intelligence can advise on the best course of action for a limitless array of scenarios. It enables businesses to better predict and respond to supply chain disruptions and ensure the necessary plans are in place to navigate increasingly complex global environments.

Historically, Australia has been reluctant to embrace the possibilities of AI, leaving the country vulnerable and, potentially, on the path to a low-skilled economy. Australia's investment in AI was valued at approximately \$US300 million¹⁹ in 2020. Other regions are well ahead. The US invested \$US23.6 billion, while China committed \$US9.9 billion and the UK invested \$US1.9 billion (an investment six times greater than ours despite being just twice as large as the Australian economy).

16. McKinsey & Company, 'Autonomous supply chain planning for consumer goods companies', 2/3/22, <https://www.mckinsey.com/capabilities/operations/our-insights/autonomous-supply-chain-planning-for-consumer-goods-companies>

17. CPA Australia, 'Business Technology Report 2022', <https://www.cpaustralia.com.au/-/media/project/cpa/corporate/documents/tools-and-resources/business-management/business-technology-survey-2022.pdf?rev=d260c9329cb64b56a2dc08e95ae83681>

18. PwC, 'PwC 2022 AI Business Survey', <https://www.pwc.com/us/en/tech-effect/ai-analytics/ai-business-survey.html>

19. Raft, Therese, 'Low adoption of AI is hurting Australia in the global field', <https://www.afr.com/technology/low-adoption-of-ai-is-hurting-australia-in-the-global-field-20220715-p5b1t7>

WHEN ERP AND AI ARE COMBINED

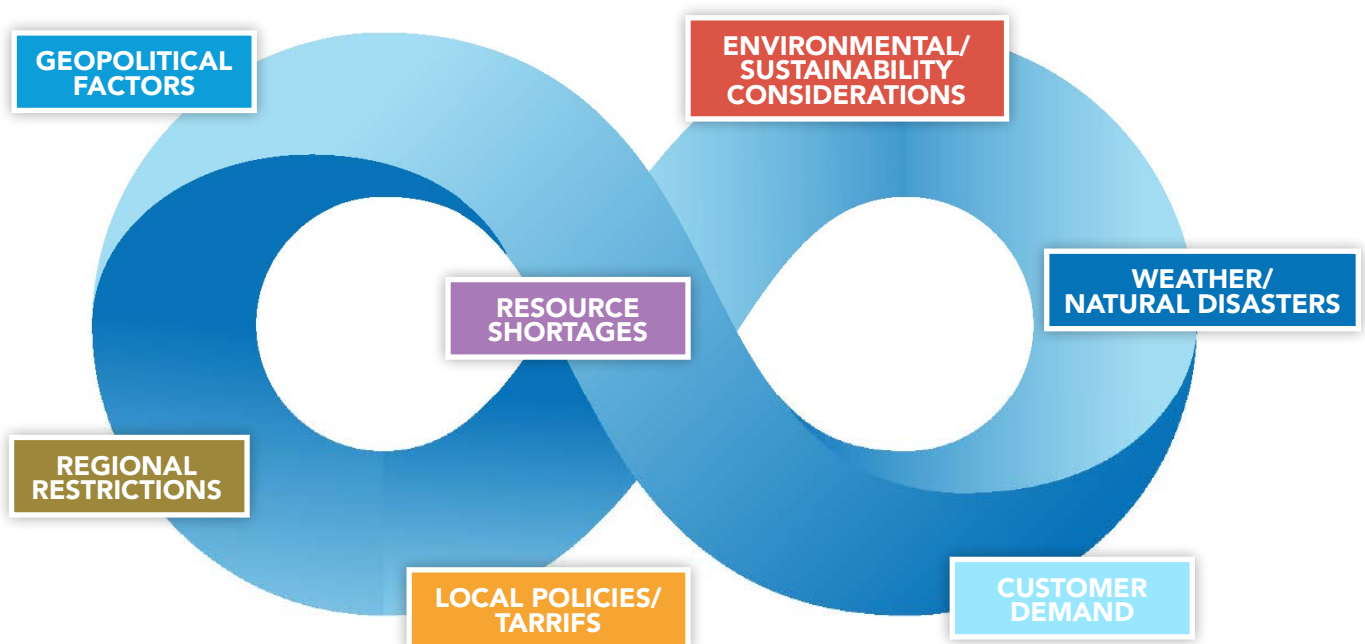
When ERP is empowered by AI, it becomes much more than an interface for users to examine information. The two can be combined to create a fully automated and self-informed decision-making system. Through AI, businesses can predict surges or lulls in demand and adjust flows of product or material volume accordingly.

AI can gather and make recommendations based on multiple sources of data (for example, weather information, traffic, global events, etc), meaning delivery times can be more accurately predicted, and in turn delivery routes can be chosen more effectively. Users can also be notified of inventory adjustments in real time.

For example, the UK's NHS incorporated an AI solution into their platelet supply chain. Blood is a challenging product to move given its short life span. Platelets only survive 7 days after collection. Ensuring sufficient supply while minimising overstocking and wastage has been an ongoing challenge for life-saving organisations.

Within 6 months of incorporating an AI-powered app that the team could use to predict demand, stock levels, donor centre collections plans, among other factors, they saw a 54% reduction in expired platelets and a 100% reduction in costly ad hoc transport while maintaining the high on-time full delivery rate.

In another instance, a European technology company was impacted by the microchip shortage. They used a digital twin-enabled stress test across its multi-tier, end-to-end supply chain to identify risk areas and inform survival and recovery strategies for specific threats or disruptions across the supply network. \$US1.9 billion (an investment six times greater than ours despite being just twice as large as the Australian economy).

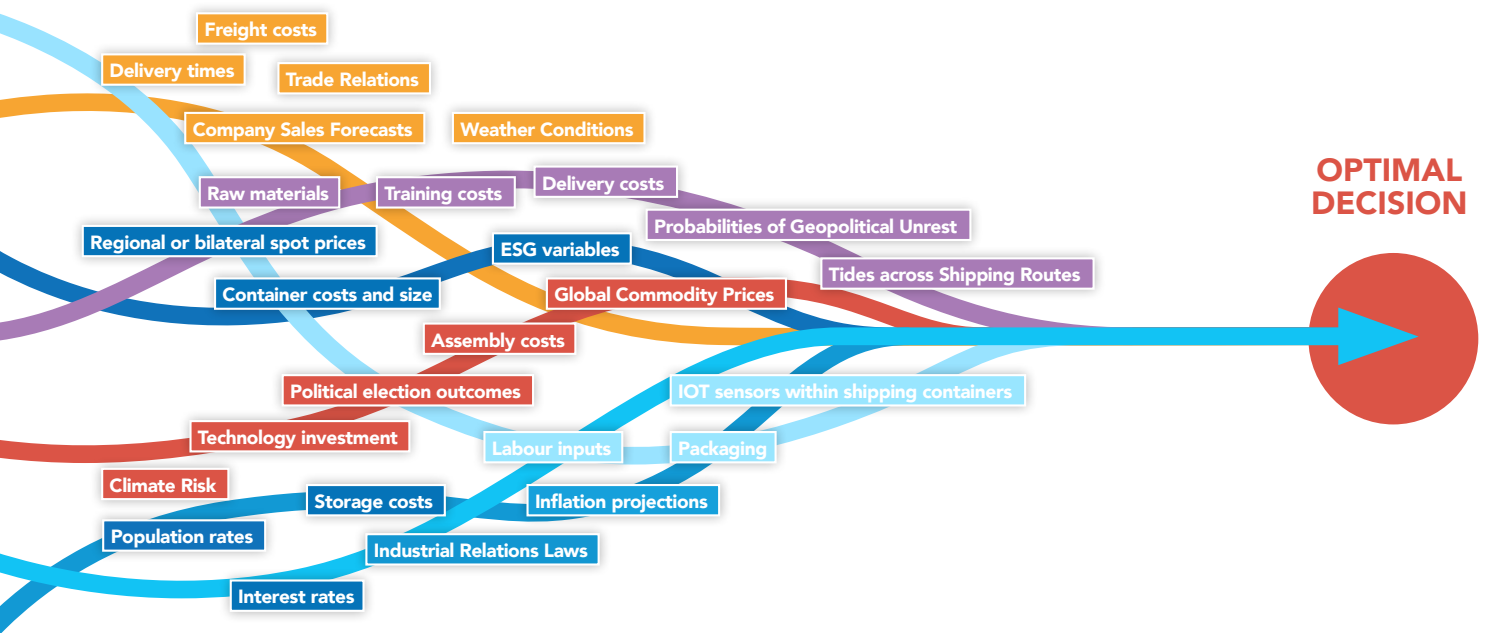


When AI is integrated into ERP, supply chain systems are streamlined, made faster and are less prone to error. The union will empower companies seeking to deploy dynamic supply chains, reducing overheads and streamlining time to fulfilment

While human intuition will always be critical, we are only beginning to understand the capabilities of AI in enabling advanced decision making, alternative scenario assessment and ultimately, true supply chain independence.



Imagine being able to leverage real-time insights on both interest rates, and the tides of waves across the Pacific and Indian Oceans, within the same 'what-if' model, in order to determine optimal shipping routes to maximise Q4 profit margins



20. NHS Blood and Transplant, NHS Blood and Transplant partners with Kortical to deliver innovative project', 6/9/18, <https://www.nhsbt.nhs.uk/news/nhs-blood-and-transplant-partners-with-kortical-to-deliver-innovative-project/>



CONCLUSION BUILDING A RESILIENT FUTURE



Reading time:
3 Minutes





BUILDING A RESILIENT FUTURE

The past few years have cast ongoing doubt on supply chains worldwide. With virtually endless fluctuating variables driven by geopolitical factors alone, it is no longer a question of whether supply chain disruption will occur. Now companies must evaluate how prepared they are for disruption, how and when it occurs.

To survive and thrive in this new world, business requires true empowerment and independence from reliance on any single country or supplier. Australian business leaders are under unprecedented pressure to react, adapt and improve supply chains on the head of a needle. While the strategies for global diversification and enhancing our national advanced manufacturing capability exist, the vast quantity of ever changing variables and options are unsurprisingly overwhelming in the face of cost pressure and ongoing global volatility.

To respond to these emerging factors and evolving situations, companies must have the appropriate IT architecture and systems supporting their supply chains. Leveraging ERP and AI will be key to success in this new world as businesses take control of their own fate. The integration of AI and ERP promises agility and real-time situational analysis, providing businesses with the foresight and recommendation to adapt processes and continue operations with minimal interruption while capitalising on opportunities as they present themselves.

Amid the uncertainty, the Australian government and business leaders must be better positioned to better explore advantageous local manufacturing opportunities, while also determining which global supply chain opportunities provide diversification against disruption with greater insight and intelligence.

To achieve this, Australian businesses must integrate AI and ERP to be prepared for the limitless amalgamation of possibilities which could wreak havoc on supply chains. Of these, some will certainly eventuate. Australian businesses have the foresight to act now, bring core production processes back onshore, and embrace AI and ERP for a resilient future.



ABOUT WILD TECH

Wild Tech are end-to-end digital transformation partners, that leverage a unique industry led approach, combined with market leading platforms, to build Australia's next generation of digital operating models.

The company is Australian owned and operated with a demonstrated national capability. For Wild Tech, the evolution of transformation starts with a deep understanding of industry requirements. That means listening in order to be a step ahead, ensuring that end-to-end business processes, and organisational maturity, are considered in light of the nuances of each platform and their ability to deliver on the future-proofed platform required in 5, 10, and 15 years time.

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