KPMG

Australian Manufacturing: Discover Growth Amid Turbulence

KPMG.com/au/manufacturing

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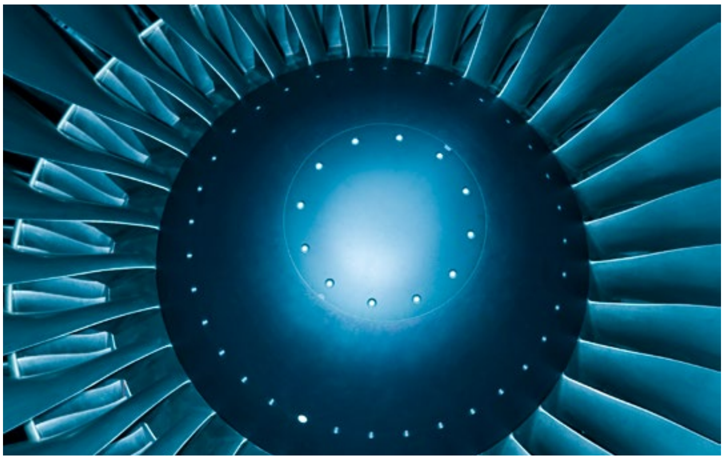


Foreword

Australia's manufacturing sector has been challenged since the 1970s with rising energy costs and skills shortage, alongside the increased ability to outsource to markets such as China. We have seen prior policies try to push for growth in Australian manufacturing however the impact of COVID-19 and consequent significant government initiatives has not only improved domestic supply chain resilience but also opened up Australia to new international value chains.

This report examines key global issues facing the sector from recent KPMG International research & discusses various methods and tools to enable Australian manufacturing businesses to get ahead of the curve and be a next generation market leader.

CEOs' perspectives, globally, are shifting. While they are confident about profitable sector growth in the next three years, they are expecting headwinds of a recession in 2023. One which will undoubtedly impact profits and sales expansion, so how will companies manage some buffering in the short term, in order to boost their business momentum? Indeed, they will have to grow faster come the rebound, to stay on track with their profit projections.

Achieving these objectives will be a difficult balancing act, between the short term and the long term, between investments in technology and in people, between onshoring and offshoring. At KPMG Australia, we call this approach your *'Journey to an Industry 4.0 Leader'*. The journey to sustainable, secure and highly automated operations is not solely technology specific. It is a transformational journey that considers leadership, strategies, agile operations and business models, as well as modern connected technologies.

Toni Jones

Partner in Charge,
Sector Leader - Manufacturing,
Life Sciences & Automotive
KPMG Australia

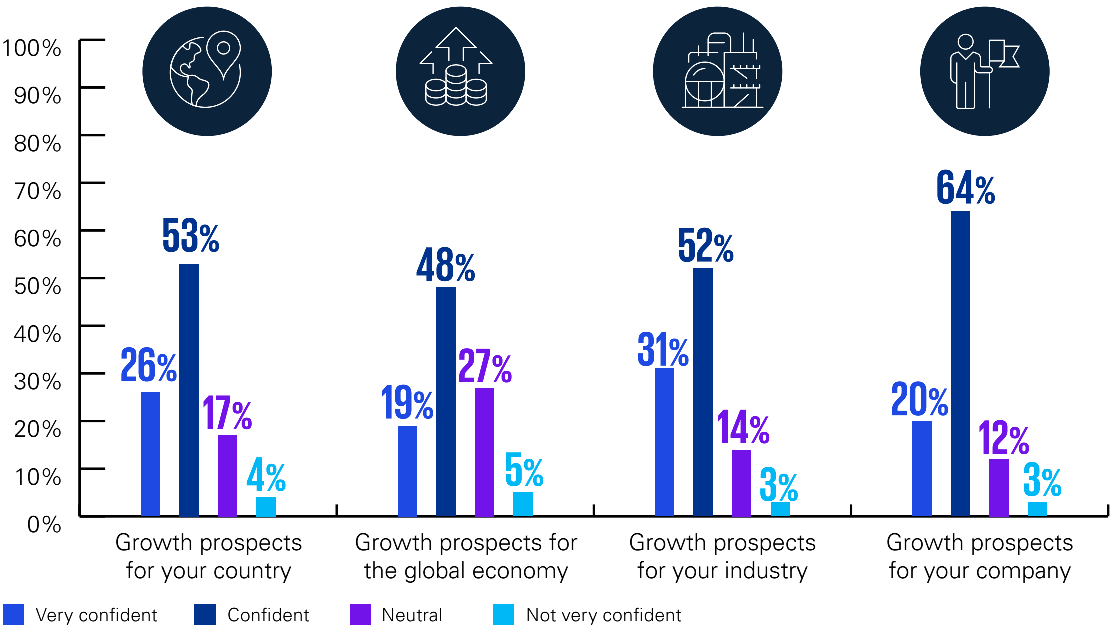
Strong optimism despite headwinds

The global economy is slowing down and there are numerous challenges facing manufacturers, but CEOs remain confident of their companies' growth prospects over the next three years. This level of confidence has hardly changed over the past 12 months. They are also optimistic about the growth of their industry between now and 2025, much more so than in previous polls.

They are, however, less confident about the world economy's short-term growth prospects, as governments tackle rising inflation by dampening demand: 83 percent of CEOs believe there will be a recession in 2023 and considerably fewer, 63 percent, expect it to be mild and short.

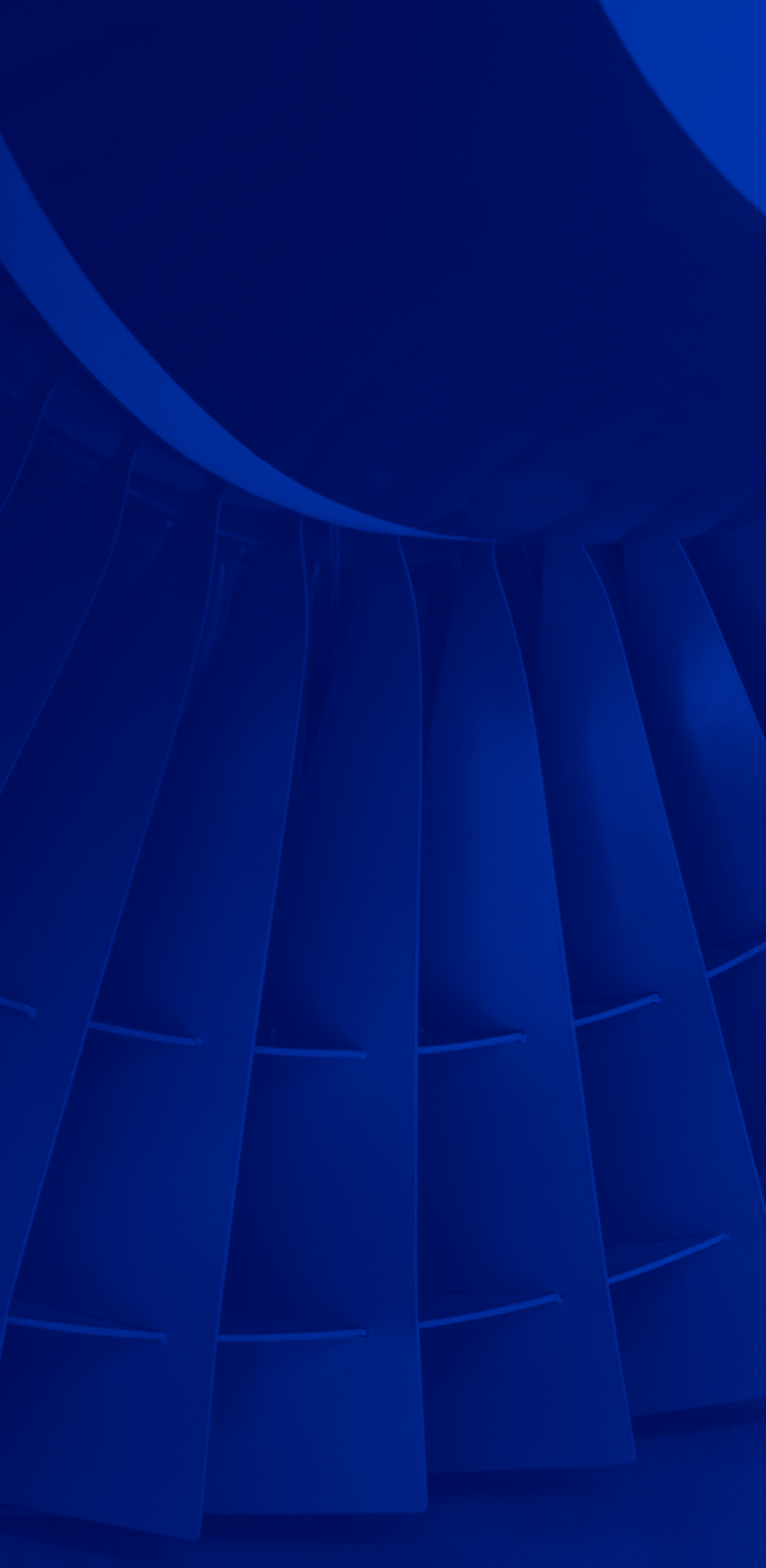
Despite the optimism about the longer term, more than three quarters admit a recession may affect their companies' three-year growth prospects. Almost four in five expect earnings to take a hit of 6 percent or more.

Figure 1: **In terms of growth prospects, please indicate your level of confidence in the following over the next 3 years**



Source: 2022 Global CEO Outlook, KPMG International

"In the face of mounting uncertainties, it is advisable to perform rolling scenario analysis and plan various responses, depending on possible paths for the business cycle," says Stéphane Souchet, Global Head of Industrial Manufacturing at KPMG. "Not all economies are expected to enter a recession and CEOs need to prepare for a rebound at some point. If inflation comes under greater central-bank control in 2023, there might be more positive momentum and companies should be ready to take advantage of a recovery."



> “In the face of mounting uncertainties, it is advisable to perform rolling scenario analysis and plan various responses, depending on possible paths for the business cycle.

Stéphane Souchet
Global Head of Industrial Manufacturing at KPMG

To strengthen manufacturers’ against a slowdown, CEOs are planning for the possibility of a recession, even though a decline in demand may disrupt their business. Eighty-six percent are planning to focus on boosting productivity or have already done so. Still, they are confident their companies will remain resilient over the next six months.

“Aerospace & Defence (A&D) Manufacturing is a sector known for innovation,” says Grant McDonald, Global Sector Leader, Aerospace and Defence, at KPMG. “Productivity improvements can be achieved through additional spending on digitisation that will enhance efficiency and effectiveness. Investments in advanced materials, 3D-printing and the internet of things can help ease skills shortages.

Amid all the discussion of a recession, A&D is, to some extent, working in a counter-cyclical direction. That is, the rebound in passenger travel has accelerated aircraft orders, and the continuing geopolitical conflicts has led to increased spending on defence equipment. But similar to other manufacturers A&D companies must tighten their belts, strictly control costs, and continue to strengthen supply chains. In such a complex ecosystem, it’s a bit of juggling act to try to smooth your way out of a recession.”

Changing global supply chains

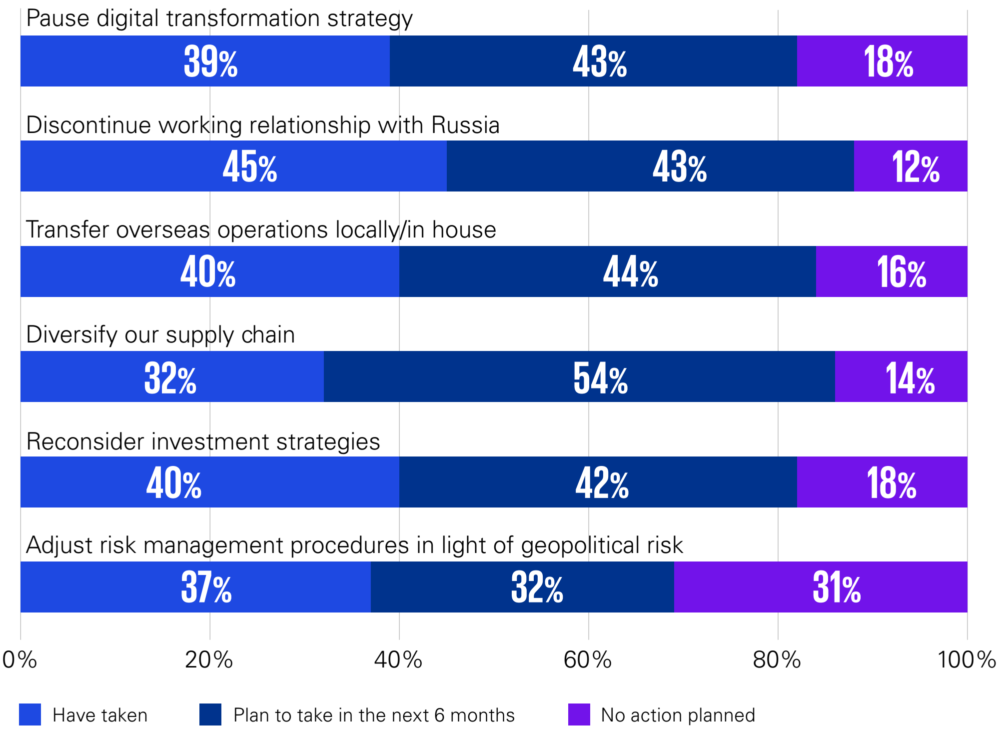
The economic picture is very cloudy, not only because of government measures to dampen inflation, but also because of heightened geopolitical risks around the world. Divisions were growing before the war in Ukraine broke out in February, but since then new, global tensions have caused companies to rethink their international strategies. Eighty-eight percent have discontinued working in Russia in response to the war in Ukraine. But globalisation is not necessarily retreating; it is more likely to be changing shape.

"An uncertain future, characterised by disrupted patterns of global trade, geopolitical tensions and growing investment in defence. While the global economy shrunk by 3.2% in 2020, global military spend reached an all-time high of $2.9 trillion and Australia saw a 13% increase in cybercrime reported relative to the previous year. This means that we have to not only focus on re-evaluating our sourcing locations, supply chain dependencies but also foster nearshore and onshore capability." says Toni Jones."This concept of strategic partnerships and alliances is also crucial to help build business relationships and to manage complex supply chains."

Eighty-four percent are nearshoring or onshoring operations or bringing them in-house and even more are diversifying their supply chain to mitigate vulnerabilities that emerged in the pandemic. The logic of investing close to major markets is still strong, but geopolitical uncertainty is raising the possibility of a divided global economy.

"Supply chains have been like a roller coaster for manufacturers, which have faced with some very tight bottlenecks, but it's useful to note that some trends are reversing. For example, there is increased shipping capacity on some trade routes. The provision of semiconductors used to be a huge stressor, but in some respects, supplies are beginning to be less constrained. Market forces are working to loosen things up," says Stephane Souchet.

Figure 2: **What steps have you already taken, and which do you plan to take in the next 6 months, to adjust your strategy in response to geopolitical challenges?**



Source: 2022 Global CEO Outlook, KPMG International

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Toni Jones
Partner In Charge, Manufacturing & Lifesciences Sector Leader
KPMG Australia

Building blocks of transformation

Companies are aiming to grow faster by both organic and inorganic means. CEOs say the top priorities for achieving growth objectives are strategic alliances and organic growth. Mergers & Acquisitions (M&A) are a slightly lower priority, but more than half of chief executives have a healthy appetite for M&A that will have a significant effect on their companies.

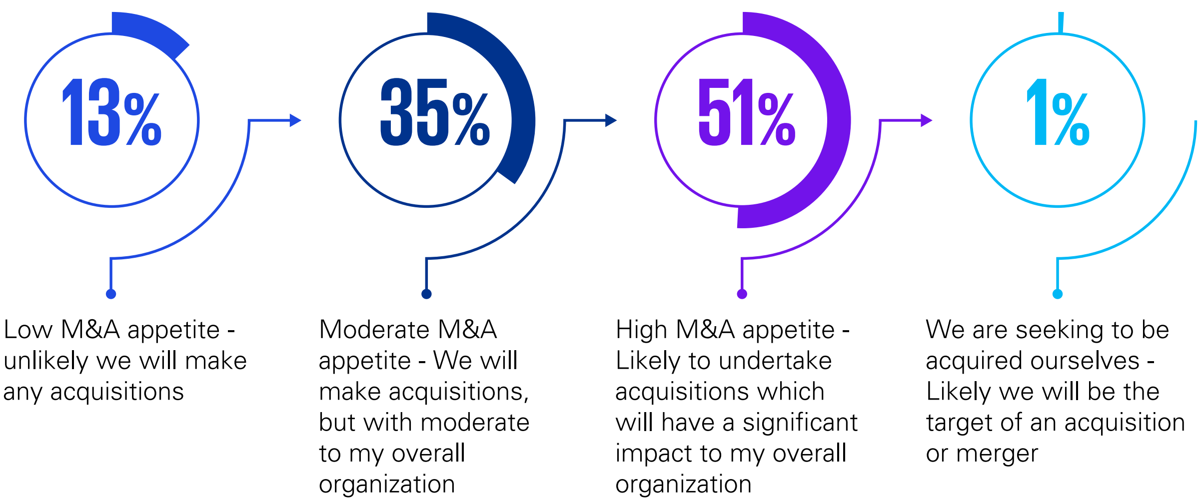
"Faced with market uncertainties and a softening of final demand, top line performance will be more challenging. To maintain valuation levels and put capital to work, manufacturing CEOs are still looking at tactical M&A to support topline growth as well as filling gaps in their product portfolio while continuing the planning of their business portfolio, for example, the sale of non-core assets to private equity raises financing for the tactical acquisitions." says Stephane Souchet.

Despite a decline in M&A deals in 2022, corporate transactions (both disposals and acquisitions) remain a very important way for manufacturers to strengthen core operations and find faster ways to expand. It is a means of restructuring and accelerating transformation.

"The economic environment is a bit less predictable than before because of rising interest rates and the possibility of an economic slowdown, but M&A is an important way to rationalise the portfolio and shift toward higher growth opportunities."

> "Industrial buyers, consumers and governments prefer products that are supported by a sustainable value chain.
>
> **Michael Smart**
> Partner, National Leader Industrial Manufacturing
> KPMG Australia

Figure 3: **Over the next 3 years, how would you describe your organization's M&A appetite?**



Source: 2022 Global CEO Outlook. KPMG International

Zeroing in on ESG goals

Sustainability goals continue to be emphasised by CEOs who say that the predominant source of pressure to promote more transparency about companies' environmental, social and governance (ESG) objectives comes from employees rather than investors. To accelerate their ESG strategy, they will take a more proactive approach to societal issues, such as increased investments in a living wage and a focus on human rights.

ESG goals are particularly important in the A&D Manufacturing sector, which has some of the highest carbon emissions which represents a significant challenge in meeting the net zero objectives.

"The industry is focused on making a difference and investments are being made in areas including sustainable fuels, hydrogen cells and electrification", says Grant McDonald, Global Sector Leader, Aerospace & Defence, KPMG

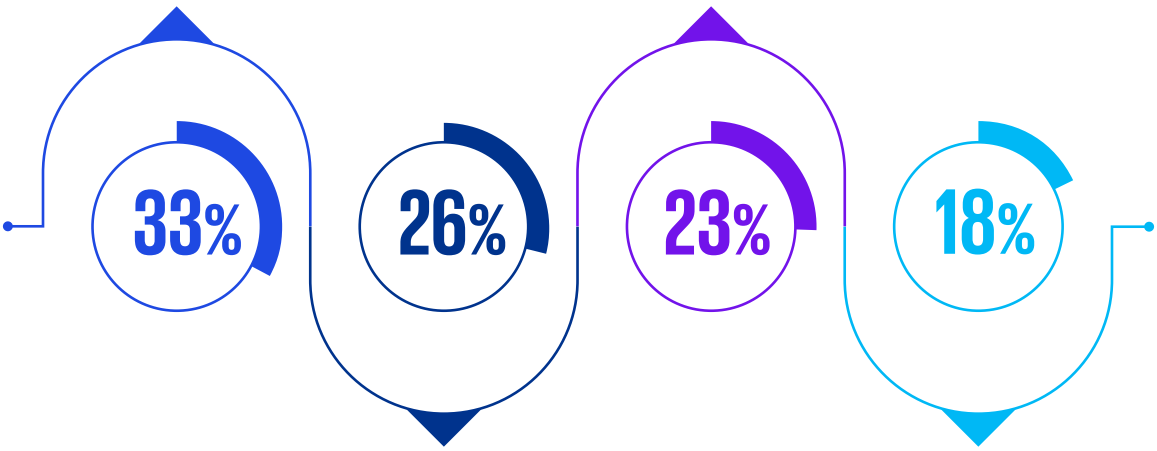
To achieve this, companies need to take an enterprise-wide view of ESG.

"The recent economic dislocations have revealed more than ever that CEOs must think of their business model from a holistic point of view. So, it's not possible to focus on one topic to the detriment of others; they're connected," says Stephane Souchet.

Figure 4: **In 3 years, what do you believe will be the key driver to accelerate your company's ESG strategy?**

Taking a more proactive approach to societal issues, such as increased investment in a living wage, human rights and a just transition

Implementing a net zero strategy and/or measuring and acting on your company's carbon footprint



Increasing measurement and governance to build a more robust and transparent approach to ESG

Delivering on an actionable inclusion, diversity and equity strategy to address equity in leadership (e.g. pay equity, diversity in leadership and boards)

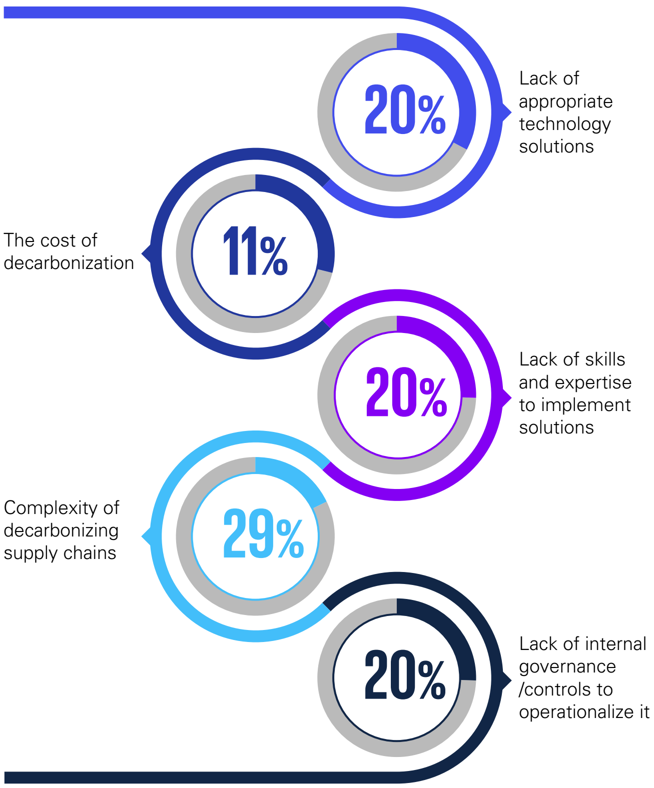
Source: 2022 Global CEO Outlook, KPMG International

Four in five CEOs say that

Achieving gender equity in the C-suite will help us meet our growth ambitions.

Another aspect of societal issues is diversity, equity, and inclusion, which are key objectives if companies are to shape a workforce that is aligned with the demography of the markets they serve.

Figure 5: **What do you believe is the greatest barrier to achieving net zero or similar climate ambitions for global corporations?**



Source: 2022 Global CEO Outlook, KPMG International

"There's a link, for example, between supply chain issues and ESG, when you think of responsible purchasing. Sometimes there are conflicting agendas, so CEOs might have to change their priorities, if they want to achieve their strategic goals."

Another aspect of societal issues is diversity, equity, and inclusion, which are key objectives if companies are to shape a workforce that is aligned with the demography of the markets they serve. For many enterprises, this means developing talent that will fill leadership slots. Four in five CEOs say that "achieving gender equity in the C-suite will help us meet our growth ambitions." They are aware that scrutiny of their organisation's performance on diversity will continue to increase, so they may need to accelerate the transition. Two thirds agree that progress on diversity and inclusion has been much too slow in the business world.

"There is research showing that companies with a focus on DEI are achieving higher shareholder returns and they will gain the greatest benefit by building a diverse leadership team," says Claudia Saran, National Sector Leader, Industrial Manufacturing, KPMG in the US. "If you truly believe that a wide range of viewpoints will enable your company to achieve higher returns, then where better to focus than at the top, with diverse people who can maximise the impact of business decisions."

If they fail to meet ESG targets, the biggest issue is that their companies would face higher financing costs, reflecting trends in investor attitudes toward sustainability. There is growing evidence that a focus on ESG creates value for companies[1] and ESG-focused institutional investment continues to rise rapidly in importance. Conversely, a failure to meet ESG goals exposes companies to financial risks, according to a June 2022 study by Dun & Bradstreet. There are other costs, as well. CEOs think that it could be challenging to recruit the best talent if they do not meet people's ESG expectations.

Some have argued that coping with geopolitical disruption is causing companies to delay meeting their sustainability objectives. But Stephane does not believe it's a choice of either/or. "When we look at the geopolitics of energy supply, we see there are increasing efforts to enhance energy sovereignty and this leads to a greater willingness to increase the supply of renewable energy. Some countries may also accelerate nuclear-power projects to reconcile ESG imperatives while its acceptability for the society is increasing in a number of countries", he says.

When it comes to meeting net-zero goals, the biggest barrier is the complexity of implementation. The least important challenge is cost, a sign that technology is making it possible to achieve decarbonisation goals within a reasonable time frame. Wind and solar power, for example, are increasingly competitive sources of energy. The U.S. Department of Energy estimates that the cost of solar power fell by more than 75 percent between 2010 and 2021. Wind turbine costs have dropped by more than half over a similar period.

"With natural disasters expected to cost the Australian economy almost three times more in 2050 than in 2017, we can expect to be living in a more volatile climate, characterised by unprecedented weather events. There is an increased focus on potential solutions to our resource constraints through synthetic biology, alternative proteins, advanced recycling and the net-zero energy transition. By 2025, renewables are expected to surpass coal as the primary energy source.

Tim Plenderleith
Partner, Engineering, Assets & Project Delivery
KPMG Australia

Rising value of skills

CEOs recognise that the quality of their workforce is crucial if their business is going to continue to expand. To achieve the company's growth targets over the next three years, the top priority is to attract and retain talent. Almost a third agree on this, 10 percent more than the number emphasising more digitisation and connectivity.

Skills shortages are a perennial problem, but at a time of market dislocation, as now, there are opportunities to fill talent gaps. Thousands of skilled workers in the technology industry have lost their jobs in 2022, so there is an opportunity to hire people who can help with the digital transformation of manufacturing.

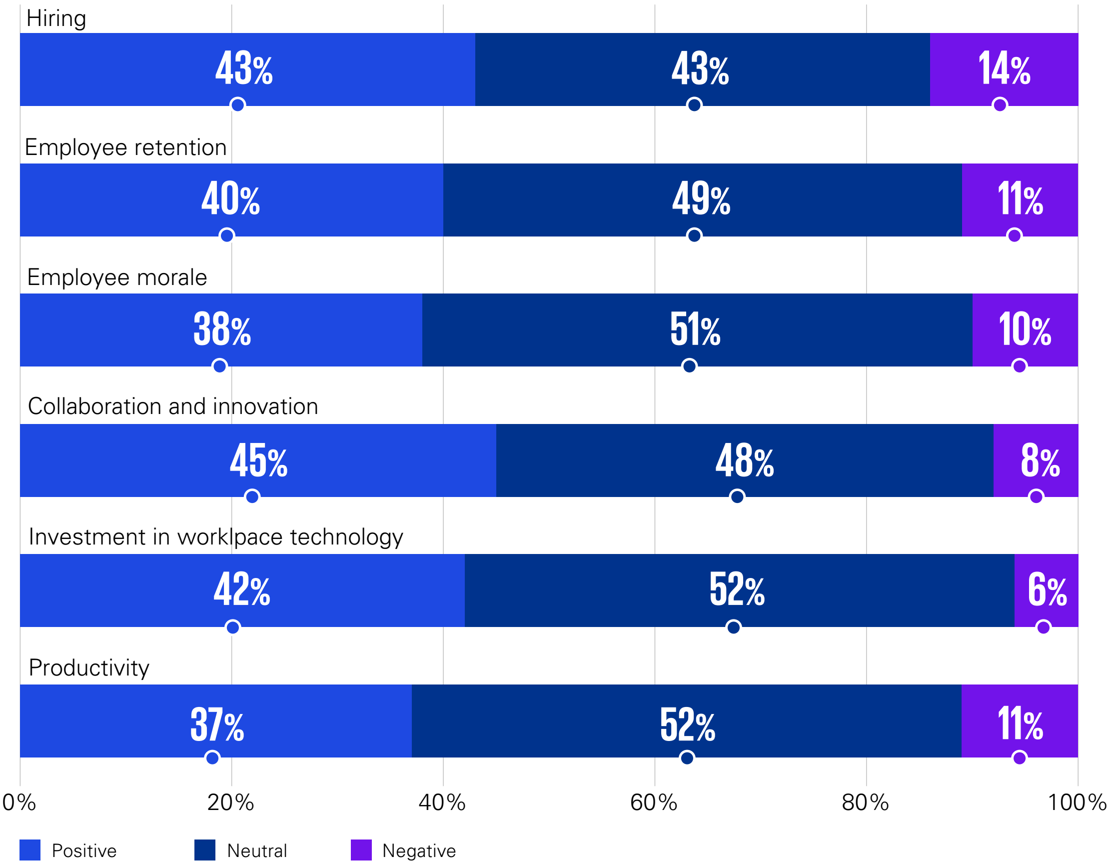
Recruitment is not the only tool CEOs should use, says Claudia Saran. "Companies are looking more broadly for sources for talent, including within their own ranks, and are finding ways to improve retention. One way is to use machine learning to match the existing workforce with new roles, retooling employees' skills to fit demands for future innovation."

Allowing employees to work flexible hours and to do so from home, at least part of the time, are important ways to attract skilled people. This kind of flexibility can also benefit the organisation. Forty-eight percent say that the impact of hybrid/remote work on innovation and collaboration has been neutral, but almost as many say it has been positive. Even so, only 38 percent think it has had a positive effect on employee morale, compared with 37 percent who say productivity has benefited.

"On the one hand, collective intelligence can be gained and stimulated through physical presence. On the other hand, technology for remote working enables companies to pull together more resources from around the globe to face, and then solve, problems," says Stephane Souchet. "Leveraging talent from a worldwide base can accelerate innovation in a large corporate organisation."

Executives are keen to see employees spend more time in the office. In three years' time, 73 percent of CEOs predict their employees will have fully returned to the office and only 21 percent expect they will continue to work in a hybrid manner. It remains to be seen, however, whether employees share this view and will comply if asked to return to the office full time. Much will depend on the balance of bargaining power between the management and workers.

Figure 6: **In the past 2 years, what kind of impact has hybrid/remote work had on your organisation in regards to:**



Source: 2022 Global CEO Outlook, KPMG International

> Human equals trust. A strong consumer and citizen push for decision makers to consider trust, transparency, fairness and environmental and social governance. Though technology has evolved and enables autonomy, the rules of decision still needs governance by a trusted human who can ethically and responsibly govern more socially acceptable and equitable outcomes. Trust in your business will be key for its growth as information becomes more available and more transparent.

Toni Jones
Partner in Charge, Sector Leader - Manufacturing, Life Sciences & Automotive
KPMG Australia

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New technologies enable new possibilities, but it is up to employees to realise those opportunities.

Vinod Ramachandran
Global Head of Industry 4.0
KPMG International

Digital and people

CEOs are divided about the position of their companies in relation to industrial transformation. Seventy-eight percent say they need to be quicker to invest in digital opportunities, but 75 percent say they have the strategy to secure first-mover advantage. Manufacturers have already gone through several stages of transformation focusing on continuous improvement.

"Now they are looking for changes in business models by using digital technology to achieve this. Any company that moves faster than its peers will have an edge and so they fear missing out on the opportunities if they don't accelerate their technology investments," says Vinod Ramachandran, Global Head of Industry 4.0, KPMG International.

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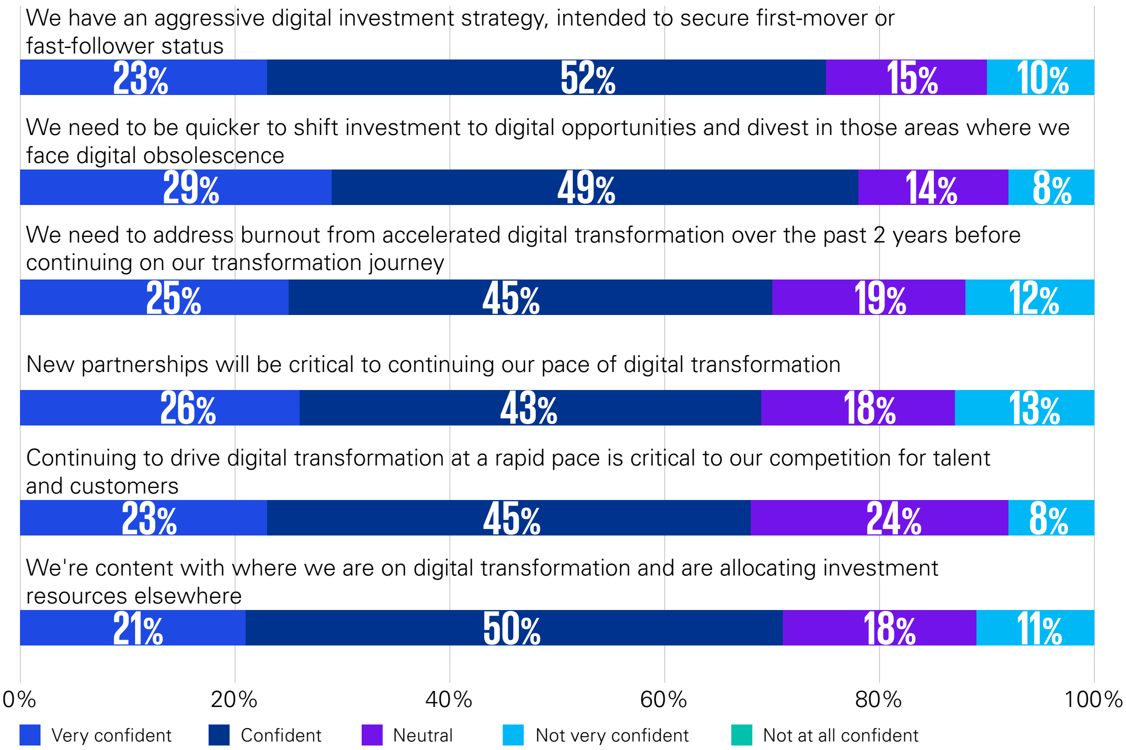
> **Vinod Ramachandran**
> Global Head of Industry 4.0
> KPMG International

Figure 7: **To what extent do you agree with the following statements about your digital transformation strategy?**



Source: 2022 Global CEO Outlook, KPMG International

If something is holding back transformation, two thirds say the main challenge is choosing the right technology. "One useful way of solving this problem is to differentiate foundational technologies, which are a must for digital transformation, from specific applications integrated on top," says Vinod Ramachandran.

"The former includes a very strong ERP platform, cloud infrastructure, data links and a data analytics platform, all interconnected. The foundational technology investments require a longer ROI.

Once that is in place, then specific applications can be built on top of it. For these, the ROI needs to be higher, because the pace of technological evolution is very fast. CEOs don't want a long payback period when the technology is quickly out of date."

Clearly, workforce attitudes need to be aligned with the company's goals for Industry 4.0, but there are signs of a divergence. CEOs say an even more important factor than technology for holding back their transformation efforts is the need to make sure employees adopt new ways of working. This suggests that it is very important to ensure workers not only support the company's transformation strategy, but also work hard to help achieve it. Employees are at the center of digital transformation and technology must be used to help them play that role so that the digital share of work content goes up.

Changing employees' attitudes to the adoption of new technologies requires a lot of effort and time from managers. Yet when asked which is the higher priority to meet transformation objectives, 57 percent choose investing in new technology and only 43 percent said skill development.

"Both the technology and the workforce go hand in hand in driving digital transformation. New technologies enable new possibilities, but it is up to employees to realise those opportunities. The challenge is that the requisite skills are becoming harder to get," says Vinod Ramachandran.

"Furthermore, employees need more than one skill. For example, an engineer in a workshop also needs to be proficient in data science so they can analyse and solve problems quickly and efficiently. Combining skills is becoming very important to ensure companies maximise the benefits of technology."

"

One useful way of solving this problem is to differentiate foundational technologies, which are a must for digital transformation, from specific applications integrated on top.

Vinod Ramachandran
Global Head of Industry 4.0
KPMG International

Your journey to becoming an Industry 4.0 Leader

Industry 4.0 capabilities play a central role, now more than ever, in making Australian manufacturing locally, and globally, competitive. The transition to an agile, fast growing and highly profitable manufacturing business starts by charting out your pathways to desired target state, by answering questions such as 'what type of business do I want to be', 'who are my customers and where are they located', 'which channels do I use to interact with my customers, my suppliers and my partners', 'how do I want to operate', 'which parts of my value chain need more automation', among others.

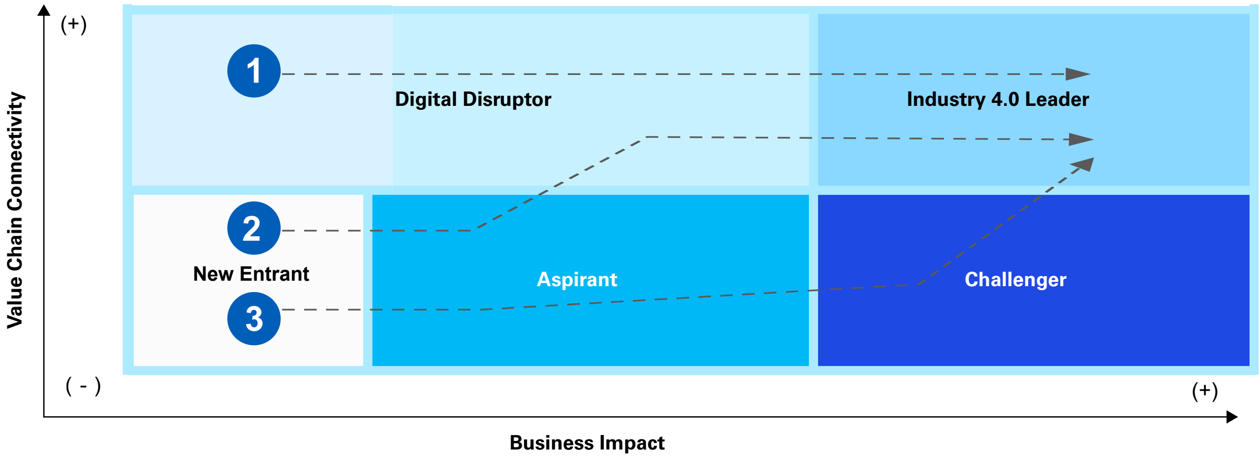
Ensuring alignment on the answers to these fundamental questions allows your management team, and your organisation, to have a clear view of the direction you want to take. Bringing supply chain closer can speed up go to market, provide more control, more flexibility, contribute to the growth of the local communities and help the environment. However, for local organisations to be attractive enough to be part of the Australian supply chain there is a necessity to accelerate the adoption of modern technologies. This help local businesses to be sustainable, socially aware, well governed, compliant to legislations and cost competitive.

For many organisations, it can be a struggle to decide 'what to do' and 'where to start'. KPMG works together with local manufacturing, life sciences and automotive businesses to define and achieve their transformational journey, one that is long term, sustainable and incorporates learnings from multiple local and global transformations that KPMG has supported several organisations with. While the journey is long term, a multi-speed adoption will enable you to benefit from accessible and affordable components in the Industry 4.0 adoption cycle at an early stage.

From a start-up to a mature company, all organisations have a business cycle, and each stage presents its own set of opportunities and challenges. On top of this, the current Australian market presents a unique opportunity, and a small window, for manufacturing organisations to strengthen their role in the Australian supply chain. Whether you are looking to expand, strengthen, or improve your operations and technology, we understand what it takes for you to be successful at each stage of your Industry 4.0 journey.

Step 1: Understand where you are on your Industry 4.0 journey

Figure 7: **KPMG Industry 4.0 Leadership Framework, KPMG, 2022**



We have identified 3 paths to becoming an Industry 4.0 leader

1. Digital Trail

Deliver high value niche offerings through connected processes and latest technology.

Leveraging these market insights to develop scalable operations improving the top line, bottom line and reducing the risk profile.

2. Wise Pivot

Continue strong growth pattern and enable core processes to support a pivot towards higher automation and better value chain connectivity

Leveraging insights to develop disruptive horizontal integration and partnership opportunities for sustainable growth strategies.

3. Modern Reconstruction

Push for industry 4.0 maturity through connected growth initiatives.

Leveraging broad market footprint and operating capacity to enable new value chain connections. This path connects the upstream and downstream eco-system and modernises your operations.

Step 2: Identify and measure the critical success factors for your journey

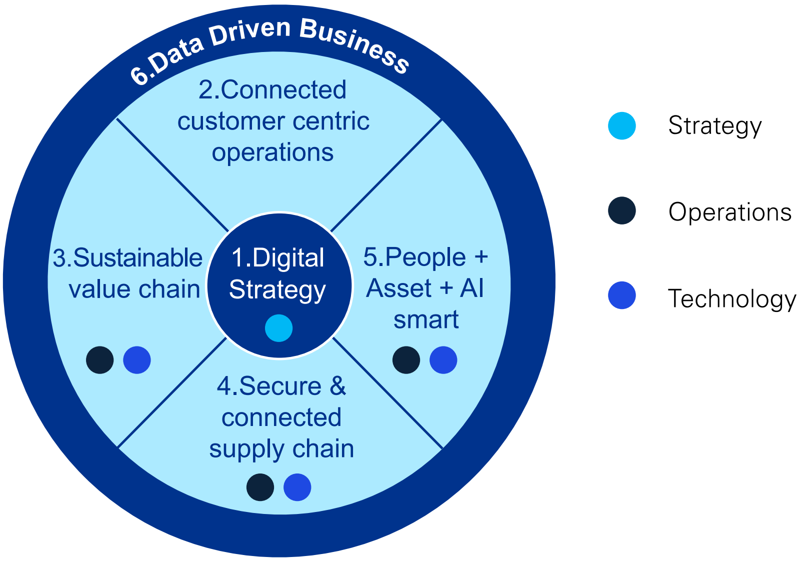
The organisations that are more likely to thrive are those which not only plan their unique Industry 4.0 journey but measure their success in business outcomes. KPMG demonstrates its commitment to helping organisations in the Australian manufacturing industry to grow and transform by focusing on the outcomes that matter. These outcomes cover all aspects of the front, middle and back office of organisations, and are pivotal to continued and sustainable success.

- Responsive Supply Chain
- Local Capability
- Digitally Enabled Workforce
- ESG Aware Value Chain
- Efficient Operations
- Governed and Managed Risk & Compliance
- Data Driven Decision Making
- Optimised Asset Utilisation

Step 3: Focus on the Key Digital Business Reconstruction Enablers

We have identified six key enablers that organisations in the Australian manufacturing industry must embrace to streamline their evolution to Industry 4.0 and drive rapid, sustainable growth. These enablers address strategic direction, operations and digitalisation, are underpinned by organisation wide continuous improvement, and contribute directly to the critical success factors for your journey.

Figure 8: **Industry 4.0 Enablers, KPMG, 2022**



1. Digital Strategy

Ambition aligned strategic plans must be in place with a clear and measurable implementation plan. These plans should have a long-term vision and a direct connection with the organisation's core value. Which digital assets do you leverage, uplift and modernise to add value to your business and consumers is key

2. Connected customer centric operations

Continuous pursuit of a customer-centric operating model (B2B or B2C) which aligns, and streamlines, the front (sales and marketing), middle (operations, supply chain and quality) and back office (finance, procurement, health, safety, environment, HR), maximising customer value and operational efficiency.

3. Sustainable Value Chain

Enable continuous monitoring and optimization across the value chain. This involves establishing an end-to-end tracking and reporting capability to understand emissions, supply chain practices and ESG maturity throughout the various activities throughout the value chain.

4. Secure and connected supply chain

Sovereign capability needs a sustainable, reliable, connected local and global supply chain network. Leverage the connected supply chain and modern technology (e.g., IoT, AI, Blockchain) to make better and faster decisions, automate processes and enable prediction of future events.

5. People + Asset + AI smart

Input cost and skills availability are two key elements that restrain growth. Scalable, agile and fit for purpose workforce and asset base, aligned to the organisation's product segment focus. 24/7 warehouse and lights out operations fueled by IIoT (Industrial IoT) analytics, AI and robotics is a key aspect of this enabler.

6. Data Driven Business

Manufacturing, Life Science and Automotive sectors are actively seeking out ways to improve quality, minimise waste - of materials, time, and effort and innovate, in order to generate the maximum possible amount of value for the client and the organisation.

Contact Us

KPMG advisers are dedicated to working with businesses like yours – no matter the size or stage of your business. KPMG takes a technology agnostic approach that offers objective advice. With specialist experience in key areas such as strategy, data and analytics, cybersecurity, intelligent automation, change and risk management, supply chain and operational excellence we assist with all elements of the Industry 4.0 transformation journey, from strategy through implementation .

KPMG's Accelerating Business Growth practice can assist you to access Federal and State Government funding and maximise your R&D Grants to support a wide range of business activities.

If you'd like to discuss any aspects of our approach contact us to learn how we can help you.

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