



LEAP AHEAD OVERCOMING INFLATION WITH ESG TECHNOLOGY TRANSFORMATION

There is an expectation that organisations incorporate environmental, social and governance (ESG) aspects into their decision-making, and tangibly demonstrate their commitment to those principles. The transition to net zero is inevitable, it will happen. It's up to the private sector and policy makers to determine how fast we will get there and how their business activities impact the world.

However, the absence of standardised rules and consistent approaches, combined with a fast-evolving regulatory environment, poses significant challenges to businesses seeking to meet stakeholder ESG expectations.

So, too, does the rate of global market inflation. In Australia, the inflation rate rose to 7.3% in the September quarter, overtaking the ABS' June quarter figure of 6.1% as the highest inflation rate since 1990. Inflation is expected to peak at approximately 8% by the end of the 2022 calendar year.

The sharp rise in inflation is the result of a confluence of factors, including post-pandemic demand levels, Russia's invasion of Ukraine which stymied grain exports, ongoing supply shortages due to China's extended pandemic lockdowns, and shipping bottlenecks attributable to port delays and geographic conflicts.

The required investment in ESG is therefore at ends with goals to keep business costs as low as possible. Technology, however, offers a path towards the harmony of both.

However, while many observers are focused on demand side management of inflation through interest rates and the Reserve Bank, a shift in focus is needed from Government and business leaders with regard to the promotion of productivity-based policies that build the supply capacity of the wider economy in a new world of ESG based operations.

This whitepaper explores the opportunities promised by the integration of ESG with technology. By embedding ESG within organisational and supply chain architecture, businesses will benefit from streamlined supplier selection, access to a repository of crucial data and holistic ESG reporting.



CORE DISCUSSION PILLARS



Addressing the paradox of striving to meet ESG goals under the pressures and constraints of global market inflation



Exploring the growing opportunity for technology to facilitate more complex interactions for today's businesses and alleviate inflation-related challenges.



Evaluating the need for governmental standardisation across industry and government, implemented through technology.



Investigating the possibilities of integrating ESG with technology to reduce common organisational challenges.



Theorising what the supply chain of the future looks like when empowered with ESG/ERP integration.



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INTRODUCTION

In recent years, ESG has emerged as a high priority for business leaders across industries and geographies. Stakeholders now expect more than a sustainability commitment statement, but evidence that organisations are actively contributing to society, ensuring the ethical treatment of their workers, and minimising their environmental footprint.

Businesses are being asked to do so against the backdrop of inflation, driven by global factors including Russia's invasion of Ukraine, ongoing supply shortages due to lingering pandemic effects, and shipping bottlenecks due to port delays and geographic conflicts.

As businesses battle with simultaneously meeting heightened ESG requirements and keeping operational expenses as low as possible, the two goals seem juxtaposed. However, the future is likely to present a symbiotic relationship of both, whereby ESG is integrated into IT architecture, driving greater efficiency and, thus, lowering costs. One example of this was the rapid business adaption to the CFC ban following the discovery of the hole in the ozone layer in the 1980s.

With ESG impacting every part of the business, from supply chain and operations, to finance and HR, companies are discovering significant gaps in their IT architectures hindering adaptation and adherence to new requirements. From a capital perspective, CFOs risk jeopardising index funds if their organisations aren't part of the transition to ESG frameworks.

CIOs are implementing new technology solutions with huge potential to capture and process ESG-related data, but without considering how these solutions can move the business towards its ESG goals. Additionally, current IT platforms are limited in their ability to easily respond to evolving regulations or to efficiently capture market and supplier data to inform decision-making.

Technologies including EHS (Environment, Health & Safety) and ERP systems, data lakes, and AI/blockchain solutions have the potential to bolster multi-purpose architecture that is fully aligned with ESG. By using technology to fill-in the incomplete datasets (without the time & cost burden teams currently face), teams open up the potential to see hidden costs & opportunities. By extension, it will help decision makers take data-driven steps toward addressing the issue of inflation and the escalating costs of materials.

Early adopters of progressive technologies can use their lessons to their competitive advantage by leading the transition to more sustainable practices. Media recognition as well as attracting top tier talent are some very real secondary benefits of doing better in business. 'Green' businesses are also significant contributors to thriving economies, with a recent report revealing that eco-friendly businesses contribute 70 billion pounds in the UK.¹

68% of CIOs admit they aren't using data and technology to improve their organisation's sustainability.²

When ESG is aligned with technology, it can be used to drive ethical, sustainable outcomes, whilst also driving efficiency in operations and reducing costs. These productivity advantages are vital to the continued growth of future-forward organisations, with the associated benefits of improving cost and inflation-related outcomes. ESG outcomes are strongly aligned with organisational efficiencies and cost optimisation, a concept we explore further below.

1. Richardson, Ellie, 'New Report Reveals UK's Net Zero Economy is Worth More Than £70 Billion', 9 February 2023 <https://renewableenergyhub.co.uk/blog/new-report-reveals-uks-net-zero-economy-is-worth-more-than-70-billion>

2. Vanorder, JR, and Shah, Sameer, 'Aligning ESG and digital strategies' ERP Today, <https://erp.today/aligning-esg-and-digital-strategies/>





MODERN ESG CHALLENGES



Reading time:
2 Minutes





MODERN ESG CHALLENGES

One of the greatest challenges facing modern suppliers is sustainable and mindful packaging. Until recently, polystyrene has been widely used to ensure the safe delivery of goods. With questions now raised around the sustainability and environmental impact of polystyrene, suppliers are seeking alternative solutions for the safe transport of goods.

Australia's National Plastics Plan includes targets to cut plastic packaging products that do not meet compostable standards, as well as polystyrene used in loose and moulded forms for a wide range of consumer goods.³

In Australia, each state and territory have regulations in place to ensure the [2025 National Packaging Targets](#) are met. The targets are:

- 100% of packaging being reusable, recyclable, or compostable by 2025
- 70% of plastic packaging being recycled or composted by 2025
- 50% of average recycled content included in packaging by 2025
- the phase-out of problematic and unnecessary single-use plastic packaging by 2025.

This has effectively spelled the end for many 'traditional' packaging businesses that failed to adapt to shifting ESG requirements.

The movement towards sustainable practices presents a particular challenge for services supplying customer demographics with hypervigilance on cost and margins, such as ALDI, for example. More sustainable, eco-friendly packaging generally comes at a higher price, due to higher manufacturing cost, organic materials typically costing more than non-organic materials and third party certifications⁴, and it becomes more difficult to navigate supply chain-related inflation when operating on a lower margin.



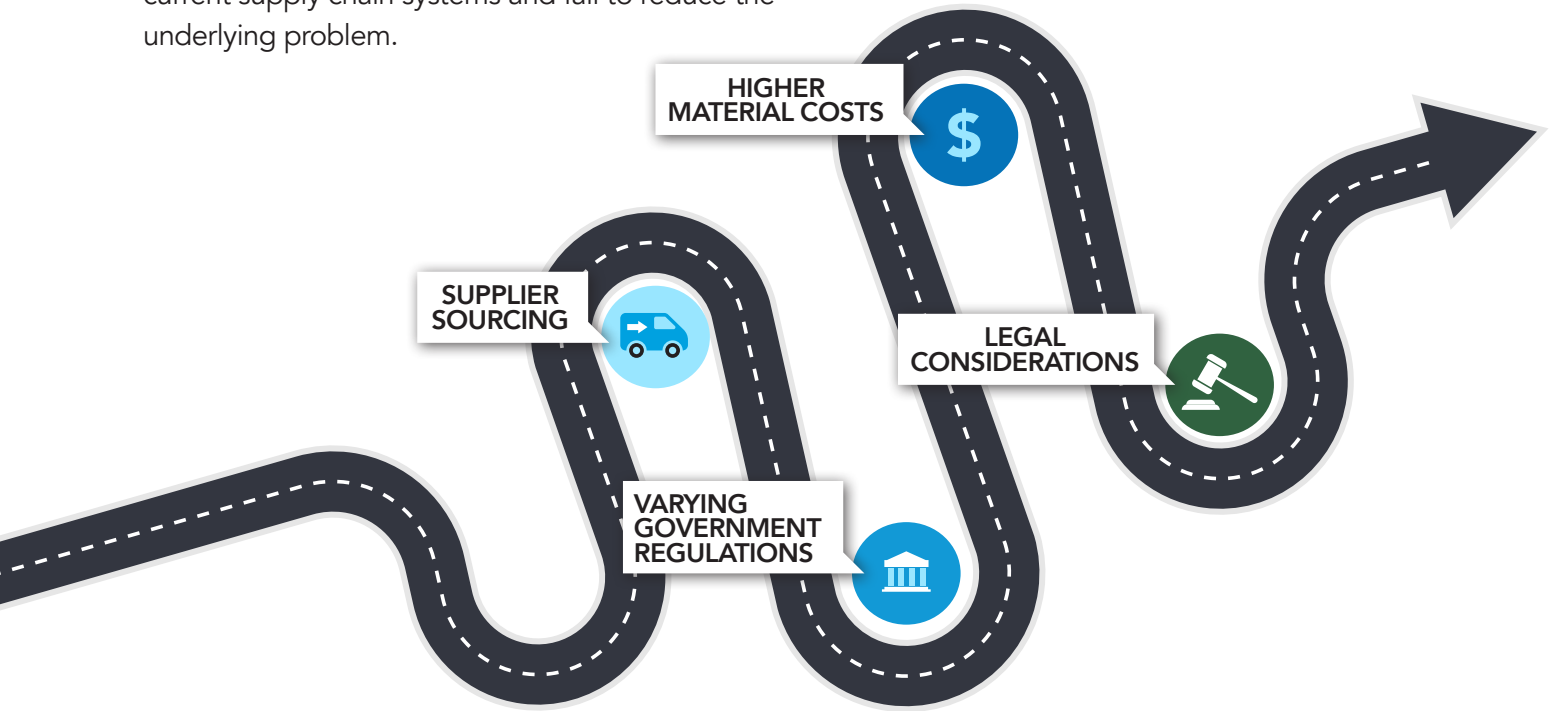
3. Readfearn, Graham, The Guardian, 'Polystyrene to be phased out next year under Australia's plastic waste plan', 4/3/21, <https://www.theguardian.com/australia-news/2021/mar/04/polystyrene-to-be-phased-out-next-year-under-australias-plastic-waste-plan>

4. Professor Mortimer, Gary, The Conversation, 'Climate explained: are consumers willing to pay more for climate-friendly products?', 30/9/2020, <https://theconversation.com/climate-explained-are-consumers-willing-to-pay-more-for-climate-friendly-products-146757>





The question arises of whether companies will need to purchase in larger quantities to receive a better cost per unit. This is a knee-jerk reaction to escalating costs and an attempt to circumvent inflation. However, these costs are inherent to current supply chain systems and fail to reduce the underlying problem.





REGULATION PROVIDING A CLEAR PATH TOWARDS THE FUTURE



Reading time:
5 Minutes





REGULATION - PROVIDING A CLEAR PATH TOWARDS THE FUTURE

Globally, most states, territories and regions have standards governing packaging principles, however these differ dramatically. For example, in Western Australia, the single-use plastic ban only applies if both the supplier and the person supplied with the product are in the same state.

In contrast, the NSW plastic ban applies outside of the state if it:

- affects, or is likely to affect, the environment of the state,
- or relates to the supply, or the likely supply, into or within the state of a regulated item,
- or relates to something that is likely to be an offence under the Plastic Reduction and Circular Economy Act 2021 NSW Regulations

PLASTIC BANS AUSTRALIAN STATE/TERRITORY COMMITMENTS

Last updated 4 Nov 2022	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
Lightweight plastic bags	✓	✓	✓	✓	✓	✓	✓	✓
Straws	✓	✓	2025	✓	✓		2023	✓
Drink stirrers	✓	✓	2025	✓	✓		2023	✓
Cutlery	✓	✓	2025	✓	✓		2023	✓
Polystyrene food + drink containers	✓	✓	2025	✓	✓		2023	✓
Plates + bowls	2023	✓	2025	✓	2023		2023	✓
Cotton bud sticks	✓	✓		2023	2023		2023	2023
Microbeads	2023	✓	2025	2023				2023
Heavyweight plastic bags	2023		2025	2023	2024			✓
Fruit + veg produce bags					2024			2023
Plastic cups + lids					2024			✓
Coffee cups containing plastic					2024			2023
Helium balloons			2025					
Plastic takeaway containers	2023				2024			

■ Banned
 ■ Banned yet to commence
 ■ Proposed (subject to consultation)

Source: <https://www.marineconservation.org.au/which-australian-states-are-banning-single-use-plastics/>

Notes: Australia's Environmental Ministers have identified eight priority plastics for Industry to phase out nationally by 20205, although this is understood to be voluntary. These are lightweight plastic bags; plastic products misleadingly termed as 'degradable'; plastic straws; plastic utensils and stirrers; expanded polystyrene (EPS) consumer food containers; EPS consumer goods packaging;(loose fill and moulded); and microbeads in personal health care products. The Commonwealth Government has also committed to oversee a phase out of PVC packaging labels by December 2022. In addition to the plastics listed above, some jurisdictions are also banning other plastics such as balloon sticks, balloon ties, and pre-packaged cutlery/straws (i.e. on juice boxes). Helium balloon releases have also been formally banned in QLD, VIC & WA.





Markets are like water - they will find a way to break through if not managed effectively.

SYSTEMISED CHANGE IS SUSTAINABLE CHANGE

This lack of consistent standardisation creates significant challenges for suppliers across most industries. Transitioning to new packaging strategies is a high-cost and resource intensive process relying on a well-coordinated & robust change management process. Curating individual packaging strategies for different states and territories across different product lines is a difficult feat for many of the most advanced and well-established suppliers.

Businesses are choosing to move, for instance, from polystyrene to wood, cardboard or dissolvable packing beads, and in doing so they may find they need to ensure their new suppliers meet the ESG requirements of the regions they are operating within. Some governments are requiring proof of ESG compliance throughout the whole supply chain, which is typically very onerous on change management teams.

Existing technology and ERP infrastructure is currently limited in its ability to facilitate seamless ESG compliance across multiple geographies and varying requirements. However, the incorporation of technologies such as AI, ML (machine learning) and blockchain could help businesses monitor regional policy developments as they consistently tighten and shift. Automating adherence to evolving ESG requirements will allow businesses to adjust quickly and seamlessly to the new order in trade.

Markets require a fine balance of parameters and regulations with room for innovation. Markets are like water - they will find a way to break through if not managed effectively. Governments and systems need to provide governance solutions to ensure businesses are compliant, without stifling innovation.

While they may be perceived at the time to be a significant hindrance to business operations, historically businesses have been proven to adjust to governmental regulation.

When the hole in the ozone layer was discovered over Antarctica in 1985, international policies were rapidly introduced to ban chlorofluorocarbons (CFCs) - the chemicals responsible for its deterioration.⁵ In 1987, an international treaty halved the use of CFCs. In 1990, the Montreal Protocol banned the use of CFCs entirely in industrialised countries by the year 2000, and by 2010 in developing countries. In 2022, a UN assessment declared the ozone layer is set to be healed over most of the world within the next two decades.⁶

When requirements are ingrained into legislation and supported with the right technological infrastructure, it becomes systematised and the 'new normal'. The long-term commitment to ESG-related technology and tools will result in a return to the relative norm of market pressure.

We are now seeing the movement away from combustion engines because we have reached the limits of this particular technology. Thus, the world is now switching to low or zero-emission vehicles like electric, hybrid, or hydrogen vehicles. ESG demands the transition away from technology that no longer offers the highest levels of efficiency. If businesses cling to archaic systems and structures, they are likely to continue encountering the same challenges and prolong inflation.

Ultimately, drastic change must come with policy-making that drives clarity and efficiency.

5. 11 Rapid Transition Alliance, 'Back from the brink: How the world rapidly sealed a deal to save the ozone layer', June 2019 <https://www.rapidtransition.org/stories/back-from-the-brink-how-the-world-rapidly-sealed-a-deal-to-save-the-ozone-layer>

6. Milman, Oliver, 10 January 2023, 'Earth's ozone layer on course to be healed within decades', The Guardian <https://www.theguardian.com/environment/2023/jan/09/ozone-layer-healed-within-decades-un-report>





PLOTTING THE COURSE TO AN ESG FUTURE

Technology-driven transformation promises to bring new business opportunities to model for the future in the context of capital expense and inflationary pressure. When there is structural inflation and too much demand, the market becomes overheated. Interest rates are generally effective, as they cause spikes in cost until the market learns and adapts.

It's arguable that supply-related costs will reduce over time through innovation and clarity. Looking beyond the Reserve Bank, government regulation and productivity-based policies will support this transition, however, it's a shift that must occur at the market level if the pricing conundrum is to be resolved.

Generally, government investment in infrastructure results in long-term benefits for businesses and the economy. Snowy Hydro, for example, was designated one of the civil engineering wonders of the world. The Snowy is still generating power today, producing 32% of all renewable energy available to Australia's east coast mainland grid⁷. While the initial investment in such projects is substantial, the resulting infrastructure generally supports the Australian economy for decades.

What businesses now face is a necessary leap. Now is the time to embrace new ESG-enabling technology to minimise cost and maximise profit. Businesses at the cusp of this transition will be those who emerge as leaders in the not-so-distant future.

Current enterprise management software solutions are designed to facilitate ESG reporting, but aren't integrated with the necessary intelligence to support the transition towards true technology transformation. Cost optimisation and efficiency will be the key drivers of this new world, and organisations that continue to fixate on price will find themselves repeating history's mistakes.



7. National Museum Australia, 'Snowy Mountains Hydro', <https://www.nma.gov.au/defining-moments/resources/snowy-mountains-hydro>



ADDRESSING THE TECHNOLOGY GAP



Reading time:
5 Minutes





ADDRESSING THE TECHNOLOGY GAP

The world's largest software vendors are currently neglecting to embed boundaries for ESG in their systems. While reporting mechanisms are in full effect, current systems don't provide the tools needed to structure integrated ESG operations.

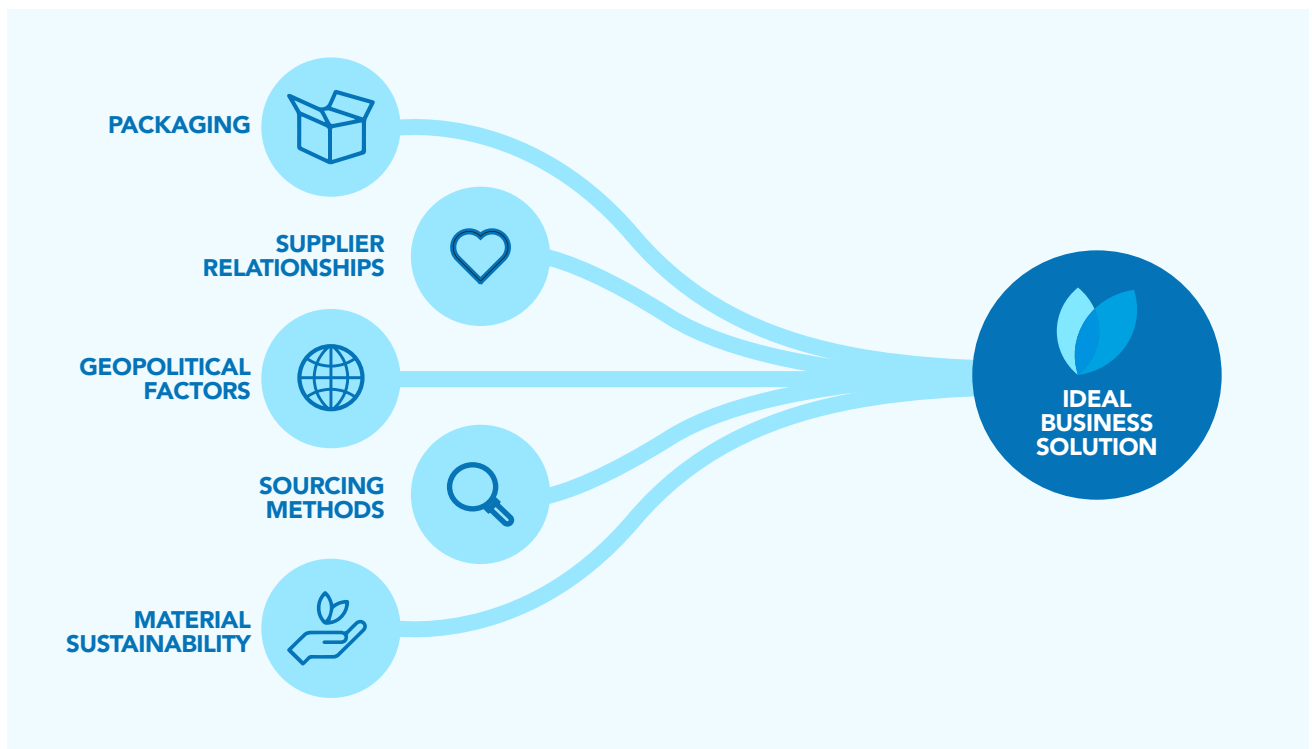
Forward-thinking organisations that proactively adopt technologies like AI and ML and integrate them with operational processes like their supply chains are generally those with the greatest cost efficiencies. Beyond this, they are best placed to optimise their strategies in a way that is totally compliant with ESG as technology develops. If transformation is done haphazardly in a knee-jerk response to market factors, this is when expenses are likely to escalate.

Identifying and securing suppliers with ESG-aligned practices has emerged as a challenge for businesses globally. There's an opportunity for packaging requirements, materials and methods to be embedded within ERP technology. The ability to filter suppliers or packaging businesses

based on these factors would streamline company supplier selection and relationships, conserving time and resources.

The new world of technology should give businesses the ability to make more informed, objective decisions. If decision-makers are seeking suppliers that are compliant with certain acts, they currently have to negotiate with multiples to get the best price outcome. When ESG is integrated with technology infrastructure, it has the potential to streamline the process of ethical compliance status checks. In the event a supplier isn't ESG compliant, the system enables fast intervention.

Ethical sustainability begins when businesses choose to empower themselves. This is because the move towards ESG, which is often regarded as a wave, is not disappearing - rather it reflects a fundamental shift. Once the necessary technology is in place, businesses will continue to grow, improve and evolve from there.





REALISING THE POTENTIAL OF TOMORROW'S TECHNOLOGY

IT systems providers now face the challenge of rapidly developing dynamic architectures - a confluence of applications, platforms, and data - that are aligned with ESG strategy. These new IT solutions must be flexible enough to adapt to changing regulatory standards, often across multiple regimes as mentioned earlier.

They also need to consider energy consumption, else the environmental benefits they enable elsewhere be nullified. There are several methods IT suppliers and businesses alike can employ to ensure their commitment to sustainability is demonstrated through their systems:

- Server virtualisation - allows businesses to consolidate multiple physical servers and desktops, thus reducing the number of physical machines needed, resulting in less energy consumption and less electronic waste.
- Cloud computing - the use of computing resources on-demand reduces the need for physical servers and data centres. Cloud providers typically use centralised data centres that are optimised for energy efficiency.
- Energy-efficient cooling systems - data centres generate a lot of heat, so cooling is a major source of energy consumption. Using more efficient cooling systems, such as air-side economisers or liquid cooling, can significantly reduce energy consumption.
- Renewable energy sources - IT systems can be powered using renewable energy sources such as wind, solar, or hydropower.

We are moving to a future where technology applications need to look at the most efficient ways to obtain resources, for example; energy. Battery storage, using resources like lithium, is emerging as an exciting prospect, and we are only on the cusp of realising its full potential.

Energy providers and IT providers alike are beginning to realise the potential of alternative energy sources. A recent partnership between Qcells, a South Korean solar manufacturer, and Microsoft will focus on the development of new solar projects and accelerate the roll-out of 2.5 GW of solar energy projects.⁸

In Australia, Ingka Group's investment arm (which owns 370 IKEA stores worldwide), has bought stakes in a planned wind farm in Victoria state, allowing it to claim up to 15% of the power produced. The group has a targeted total investment of €6.5 billion in renewables by 2030.⁹

Businesses need to be able to model different energy sources and facilities to make their organisations more efficient and adopt the lower cost unit of energy. The next generation of technology will be able to model the most efficient, cost-effective way to set up a new plant and supply energy to individual factories. It will be able to determine if it's more efficient to build or leverage the existing electricity framework.

For example, an item costs \$10 to produce using traditional energy sources and processes. When compared with the ESG-mindful equivalent, the same item may cost \$15. However, AI technology is able to analyse supply and demand and forecast

8. Murray, James. 'First of its kind: Microsoft and Qcells ink solar mega-deal', 26 January 2023, Business Green

<https://www.businessgreen.com/news/4066135/microsoft-qcells-ink-solar-mega-deal>

9. Gross, Sybilla, 'Ikea Buys Into Planned Australian Wind Farm in Renewables Push', 2 February 2023

<https://www.bloomberg.com/news/articles/2023-02-01/ikea-buys-into-planned-australian-wind-farm-in-renewables-push>





that the cost will reduce to \$8 over time. It can also determine that the original methodology will result in the item costing more over the same period.

The next generation of ERP and IT systems needs to be able to support this new way of supply chain and manufacturing thinking. In the near future, there will be variables, and the next generation of technology will determine the most efficient ways to access resources.

Thus, ESG will prove to be another mechanism to drive costs down. Electricity will no longer be a one-size fits all, but a service chosen based on bespoke company requirements.

LESSONS FROM THE PAST

Prior initiatives, such as carbon credits, have failed to do this, despite their popularity. 2021 was a record year for Australia’s carbon markets, with an estimated reduction of emissions of 58 million tonnes (9.1% more than in 2020). However, recent research indicates carbon credits are not as effective as claimed.

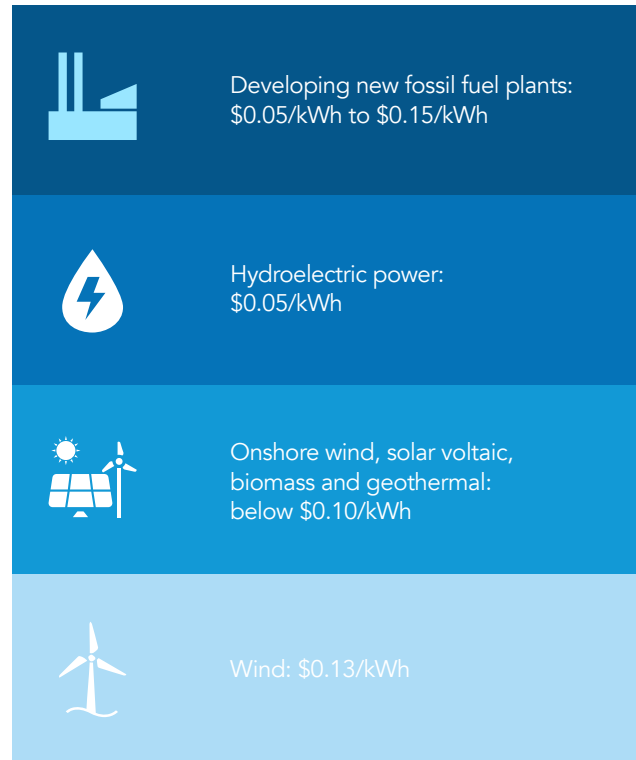
Forest regeneration is one of the most common methods for organisations to purchase credits, but an analysis of 119 human-induced regeneration projects across New South Wales and Queensland found the total forest area had barely increased.¹⁰ In fact, in 59 of the projects, the amount of forest was found to have reduced. Those organisations still received 8.2m carbon credits, worth more than \$100m.¹¹ This could be, in part, due to traditional

monitoring methods, whereby human observation of a small sample area of the land under care is considered to represent the whole.

Purchasing carbon credits may address short-term obligations, but it fails to address ESG and cost issues, avoiding any fundamental improvements to productivity. Companies are still relying on archaic technology and, while theoretically doing the right thing, aren’t efficiently transitioning to the new world of ESG.

While initiatives to reduce carbon emissions have, thus far, fallen short of expectations, it’s a virtual certainty that the world will eventually achieve ‘net zero’. However, the speed at which it’s achieved is dependent on businesses and policymakers.

Comparison of the cost of primary energy sources



Source: <https://www.inspirecleanenergy.com/blog/clean-energy-101/cost-of-renewable-energy>

10. Morton, Adam, 'Australia's carbon credit scheme 'largely a sham', says whistleblower who tried to rein it in', 23/3/22, <https://www.theguardian.com/environment/2022/mar/23/australias-carbon-credit-scheme-largely-a-sham-says-whistleblower-who-tried-to-rein-it-in>
 11. Macintosh, Andrew; Butler, Don; Evans, Megan; Larraondo, Pablo; Ansell, Dean; and Gibbons, Philip, 'The ERF's Human-induced Regeneration (HIR): What the Beare and Chambers Report Really Found and a Critique of its Method', The Australian National University, 16/3/22, https://law.anu.edu.au/sites/all/files/what_the_beare_and_chambers_report_really_found_and_a_critique_of_its_method_16_march_2022.pdf





INTEGRATING NEW TECHNOLOGY AND BAU

The next stage of technology will allow purchasers to access catalogues of suppliers, categorised by materials, sustainability practices, sourcing methods, and other ESG specifications. Supplier information will already be integrated with the organisation's ERP. New AI-fuelled technology could provide insight into the supplier network and enable agreements with those compliant with certain ESG conditions, thereby driving efficiency in the supply chain.





We are starting to see the application of APIs driven by regulations, standards and certifications across various industries and circumstances. They will empower decision-makers with a clear lens of the supplier and supply chain landscape. This is the direction systems are likely to evolve, therefore building efficiencies, with enough supply on the market that they become price competitive. These systems will be equipped to navigate the different ESG requirements across countries, states and territories.

Worldwide, 83% of regulations relating to sustainable packaging focus on plastics, with

the highest number belonging to the European Union and Asia. There is a particular focus in the European Union and North America on beverages, with 50-60% of regulatory measures having a specific end-product scope targeting beverages.¹²

Most regulations (90%) tackle primary packaging alone or together with secondary or tertiary packaging. However, China, India, Vietnam, and the Philippines are proposing regulatory measures that focus on secondary and tertiary packaging, while India has the most measures focusing on secondary and tertiary packaging.¹³



But without standardisation, these systems have no underlying infrastructure to learn from and adhere to. Federal governments need to provide standardisation and guidelines in order to drive efficiency. Without it, companies will face challenges like packaging being permissible in one state but not in another.

ERP and digital supply chain models need to be ready for this world. Businesses will be able to adapt and thrive if they understand the parameters but, if the parameters are unclear, they are set up for failure.

12. Cherel-Bonnemaison, Celine; Letoffe, Alexia; Leger, Sebastien; Feber, David; and Nordigården, Daniel, 7/2/22, 'Sustainability in packaging: Global regulatory development across 30 countries', <https://www.mckinsey.com/industries/paper-forest-products-and-packaging/our-insights/sustainability-in-packaging-global-regulatory-development-across-30-countries>

13. Ut supra





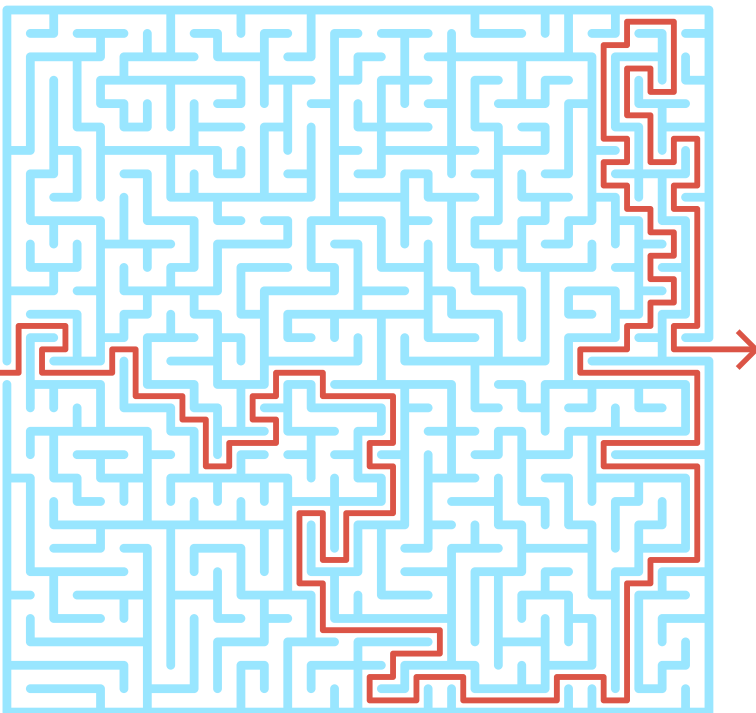
THE EVOLUTION OF ESG-ALIGNED TECHNOLOGY

It's this new technology that will drive greater efficiencies and alleviate inflationary pressure. Technology like ML, for example, is already resulting in positive change across industries. By building ML into processes, some businesses are increasing process efficiency by 30 percent or more while also increasing revenues by 5 to 10 percent.¹⁴

However, the market is currently attempting to embrace this new paradigm through the adoption of new planning mechanisms and forecasting tools. While these are useful tools, they are accessories to the new ESG paradigm - not its foundations.

With the next generation of technology, we can forecast that businesses will pay less for products over time, while clinging to archaic processes will lead to higher expenses. AI and ML will be key to this revolution in enabling businesses to make more intelligent forecasts and decisions.

AI-informed ESG infrastructure, therefore, offers greater cost savings for businesses over the long term, while legacy technology will inherently become more expensive as time progresses. While these concepts may seem futuristic, these developments are in our immediate future and need to start forming the basis for organisational technology investments. Companies that have already started to integrate AI and ML as part of their core processes will be at a greater advantage to determine intelligent investments and make business decisions to their competitive primacy.



14. Panikkar, Rohit; Saleh, Tamim; Szybowski, Maxime; and Whiteman, Rob, 'Operationalizing machine learning in processes', 27/9/21, McKinsey & Co, <https://www.mckinsey.com/capabilities/operations/our-insights/operationalizing-machine-learning-in-processes>



These technology-driven efficiencies are already being enabled in-industry. One agricultural blockchain company¹⁵, for example, has applied AI to supply chains for greater traceability and more sustainable outcomes.

They are able to monitor the movement of livestock including grazing locations, animal biometrics, well-being, and other factors contributing to ethical animal husbandry. When livestock is sent for processing, the abattoir is able to determine:

- how much meat is being produced and wasted,
- how efficiently employees are working, and
- advise on the most appropriate actions to maximise efficiency.

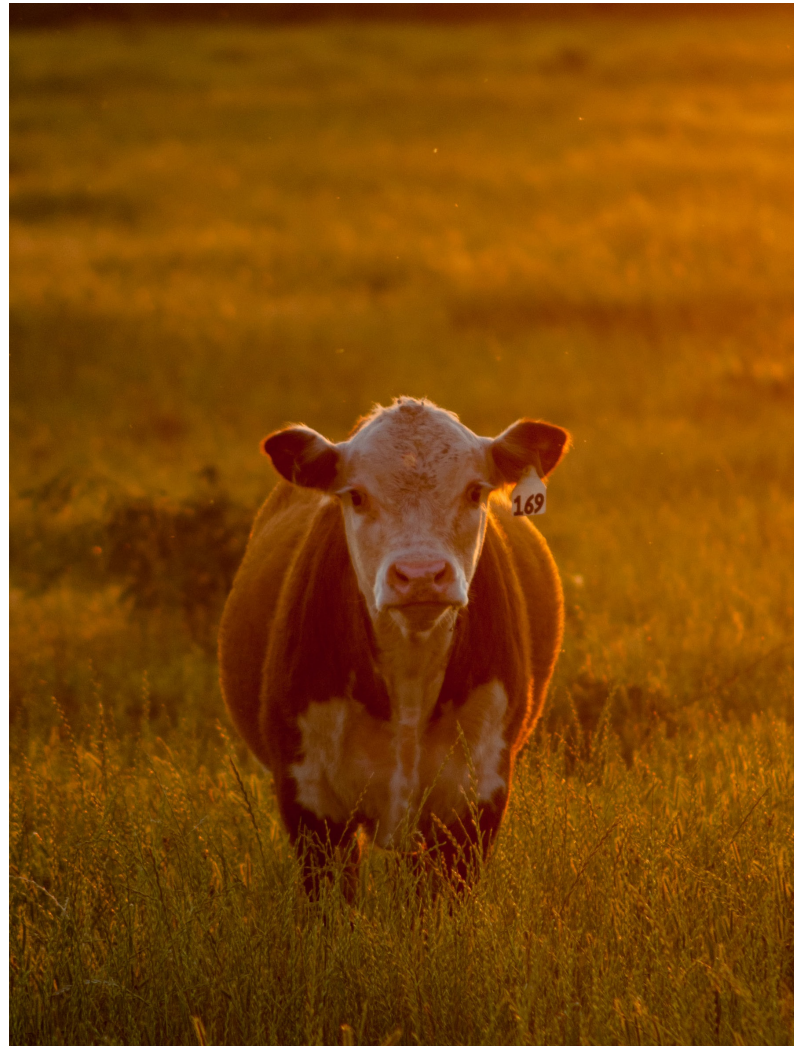
For example, if worker A is found to be producing 40 steaks an hour, whereas worker B is only producing 20, the system can advise whether further training or another intervention is required to maximise productivity.

This is a prime example of technology being used to drive ethical, sustainable outcomes for livestock and the environment, whilst also driving efficiency in operations and reducing costs. These benefits are crucial to future-forward organisations in driving productivity improvements that improve cost/inflation outcomes.

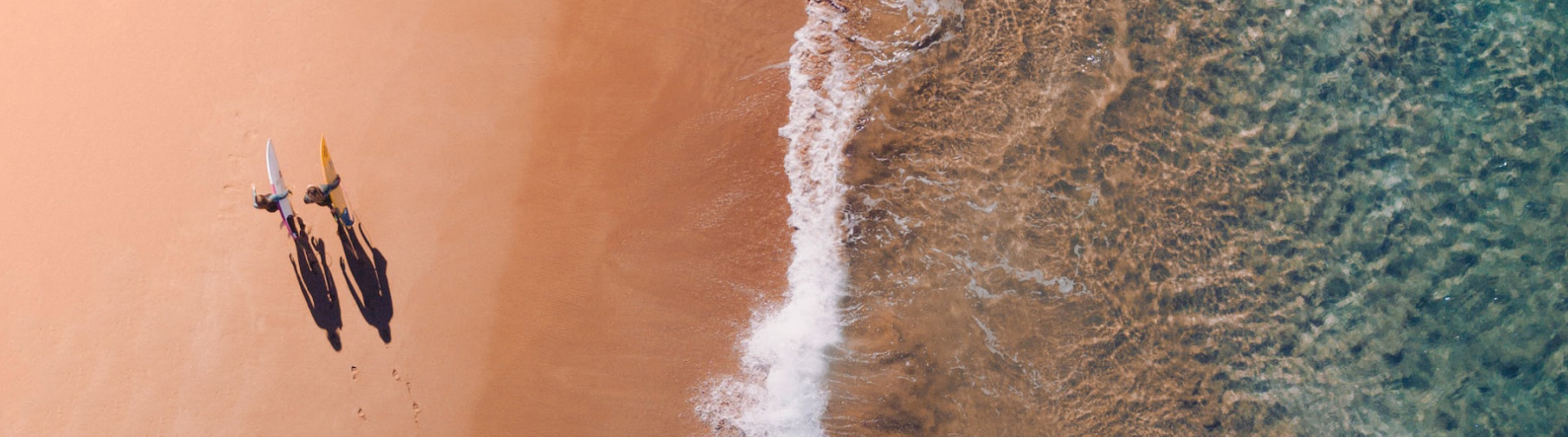
If we apply this concept to the timber materials industry, integrated technology would facilitate efficiency enhancements, including the identification of ideal harvesting locations, as well as the projected environmental impact. The ability to track tree lifecycles and which trees are ready for harvesting, alongside projected risks such as bushfires and severe weather, would allow tree logging companies to make more informed decisions about ideal harvesting times and ensure they're getting the most out of every harvest. It also offers substantial benefits to the timber or furniture factory, with visibility into the percentage of materials used, under-used resources and employee performance, even advising actions including hiring and upskilling.

Simultaneously, they would be able to track reforestation efforts and present data on their sustainability strategies and environmental footprint. Thus, ESG-aligned technology would allow the organisation to ensure they are acting ethically, while driving cost optimisations and operational efficiencies.

Organisations need to outlay capital to achieve this stage, but it's a necessity in order to become suppliers or partners of major corporations. Large companies will seek to fulfil their ESG obligations, but also embrace an environment where the cost of materials is lower. This is the great leap of ESG technology. These technologies will drive efficiencies and ultimately lower cost, but they require an initial investment.



15. Lumachain, 'Lumachain applies cutting edge technology and AI to illuminate, transform and provide traceability at every step of the food production journey', <https://lumachain.io>



CONCLUSION

The required investment in ESG is therefore at ends with goals to keep business costs as low as possible. Technology, however, offers a path towards the harmony of both.

While investment in ESG may seem to conflict with company goals to lower costs in light of inflation, it's instead a vital and long term strategy to drive stability and resilience across industries and markets. ESG is, in effect, a leap. ESG drives changes that will ultimately result in lower costs and mitigate inflation-related challenges, but it requires business commitment to achieve these results.

While the market is currently dominated by ESG reporting and monitoring tools, IT systems providers need to start exploration of the next stage in earnest. The systems we develop and invest in now need to be able to model and consider scenarios in ways that have never been possible before.

This transition must be supported by governments through careful regulation to ensure global markets are aligned and provide a basis from which these new IT systems can learn and evolve. Consistent, standardised regulation and legislation will provide an equal playing field to ensure global trade can continue unhindered.

New technologies offer fresh opportunities for cost optimisation and efficiency, but the underlying systems need to be in place. Ongoing digital transformation is a necessary and inevitable part of the transition to carbon neutrality, and organisations who continually adapt will be those best placed for success in the new world.

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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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