



ESG in the age of AI

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Executive summary

As businesses continue to mull over the best ways of adopting artificial intelligence (AI), one cannot overlook its role in helping streamline key processes across sectors. When applied mindfully, a powerful digital technology such as AI can be immensely useful in helping businesses meet their environment, social and governance (ESG) goals for a longer-term impact.

Today, business leaders around the world and in India are aware that ESG is extremely important for ensuring business goals and long-term sustainability. Findings of the 'KPMG 2023 India CEO Outlook' show that CEOs increasingly recognise ESG for what it is—an integral part of their operations and corporate strategies for building productive sustainable businesses. To this effect, 69 per cent of global CEOs have fully embedded ESG into their business to create value and 54 per cent of CEOs in India have done the same.



Balancing ESG goals with profitability ambitions is a tremendous challenge for companies. Quantifying ESG performance and progress towards the targets through pertinent ESG disclosures are critical at a time when both stakeholders and regulators expect relevant and accurate data at par with financial disclosures. Companies in India are making concerted efforts to reveal their ESG performance; however, articulating a convincing ESG story to stakeholders remains a challenge. The rising inquisition into companies' ESG commitments and their results has compelled CEOs to focus on improving transparency and performance in meeting these goals and avoiding greenwashing.

There are many ways in which AI tools can help achieve near-term and long-term ESG ambitions. Collating large quantities of data on ESG metrics, forecasting emissions, linking emissions to growth numbers and undertaking climate risk assessments are just a few of them. However, we must also remember that Generative Artificial Intelligence (GenAI) in itself uses massive amounts of energy and there has to be a way for this to be addressed and ensure there is accountability.

What this means is that while AI can be a powerful enabler of ESG reporting, guardrails and governance are critical in ensuring positive impact.

While concerns remain, GenAI is recognised as a potent driver of growth, rapidly accelerating innovation across various sectors. AI and ESG together top the CEO agenda across countries and form the biggest priority areas for investment.

Organisations that fail to embrace this new era of corporate sustainability and AI risk

may get left behind.

CEOs in India increasingly understand that businesses embracing ESG enabled with AI would best be able to drive shareholder returns, form new partnerships and alliances, and drive financial performance.

If you are a corporate leader, now is the time to assess how your organisation relates to ESG and AI by answering five questions and realigning with your leadership teams on a path forward:



How does your brand **'purpose'** underpin your **ESG strategy**?



How is your ESG strategy **driving growth and the performance** of your business?



What are your **governance systems** for measuring the effectiveness of your ESG programmes?



How can you **responsibly build your AI framework**?



How can **AI and ESG work together** to give you a competitive edge and at the same time **impact society and environment** in a positive way?

AI and ESG are reshaping the world around us. Success will be defined by those who navigate these two trends with intent, scale and speed.

Gearing up for ESG



The focus on business responsibility or ESG has been at the forefront of most boardroom discussions. The number of companies that publish a sustainability report has been growing steadily over the past decade. KPMG's 2023 CEO Outlook report shows that 79 per cent of the N100 group (the leading 100 companies in every country surveyed) report on sustainability. Among the world's top 250 companies (G250), this figure is 96 per cent.¹

At the same time, ESG compliances the world over are now on the rise. In the European Union (EU), starting from 2024, almost 50,000 companies are subject to mandatory sustainability reporting, including non-EU companies, which have subsidiaries operating within the EU or are listed on EU-regulated markets. In India, Business Responsibility and Sustainability Reporting (BRSR) - introduced in 2021 by the Securities and Exchange Board of India (SEBI) - has become a mandatory requirement for the top 1,000 listed companies.

However, companies with global operations are facing multiple regulations in various countries - such as Europe's Corporate Sustainability Reporting Directive (CSRD), Carbon Border Adjustment Mechanism (CBAM) and Corporate Sustainability Due Diligence Directive (CSDDD). Further, the United States' Security and Exchange Commission (SEC) has implemented climate rules. Existing and evolving ESG-related requirements are as varied as the jurisdictions that are required to follow them. While some focus on climate change, others cover the full set of ESG factors. These could be as varied as the EU's Taxonomy for Sustainable Activities, Germany's Supply Chain

Act, the US's Uyghur Forced Labour Prevention Act, California's new law to reduce single-use plastics, guidance from the Task Force on Climate-Related Financial Disclosures (TCFD) or the newer Taskforce on Nature-related Financial Disclosures (TNFD), infrastructure and more.

With voices for climate-aware investing and carbon controls increasing globally, reporting on multiple cross-country disclosures has been challenging for many. The reasons include complexities of data collection, the need to establish robust new processes (sometimes involving information provided by third-parties in the company's value chain) and the lack of established good reporting practice. ESG reporting is an area that will continue to evolve and will impact various sectors in different ways. However, all of these would require significant planning as well as time and effort for corporates to be ready.

Accuracy and reliability are critical when it comes to ESG reporting, especially with evolving regulations across regions. AI excels in this area by automating data validation processes. AI-powered systems can cross-check information, validate ESG data and identify inconsistencies or anomalies.

Automated validation ensures data integrity, reduces errors and enhances credibility of ESG reporting. More importantly it can monitor regulatory changes, helping companies stay updated and adapt their practices accordingly. As a result, investors and stakeholders can confidently disclose ESG information.

58%
of CEOs are prioritising environmental and social challenges.

1. <https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2023/01/csr-d-thought-leadership.pdf>

Moreover, there is yet another dimension of ESG-related investment that companies must navigate. India's central bank - the Reserve Bank of India (RBI) - is putting regulations in place to push the nation's lenders to take steps, including bolstering green lending, to mitigate risks emerging from climate change. New laws such as the US Inflation Reduction Act have created new structures of incentives, including almost USD400 billion of available subsidies over the next decade to spur investment into green technology. The EU has reacted with similar pledges with over EUR300 billion of funds in the Green Deal Industrial Plan.²

With over half of the world's GDP dependent on the environment, according to the World Economic Forum, business as usual is no longer an option. Companies are realising that almost all aspects of their financial stability stand endangered if they fail to act.

CEOs in India, as well as globally, acknowledge that addressing ESG challenges remains a key component of their business operations and long-term corporate strategy.



42%

of CEOs in India expect ESG investments to yield returns in three to five years.



33%

of CEOs in India say that the principal downside of failing to meet stakeholder expectations on ESG is higher cost and difficulty in raising finance.



The future will not be more of the past! The global economic paradigm is changing as companies are under tremendous pressure from people across the world to account for the social impact of their businesses. Moreover, endless growth with profit as the sole metric is no longer considered sustainable. The consequences of social and environmental imbalance are mostly seen in the long term, and if allowed to go unchecked, the disruption caused may cause a significant dip in growth and corporate valuations.

Namrata Rana

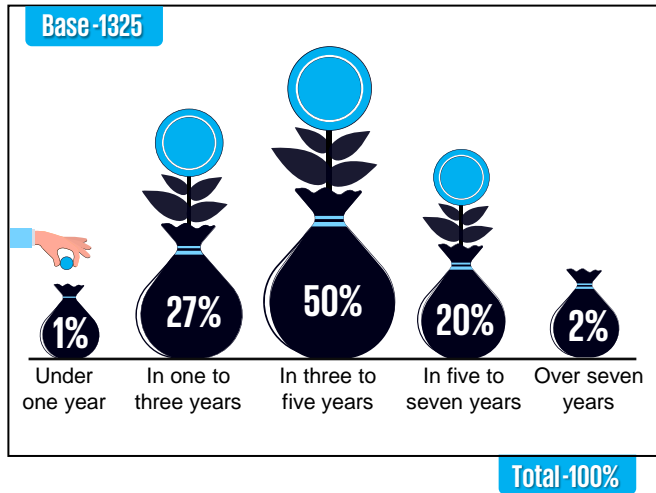
National Head of ESG, KPMG in India



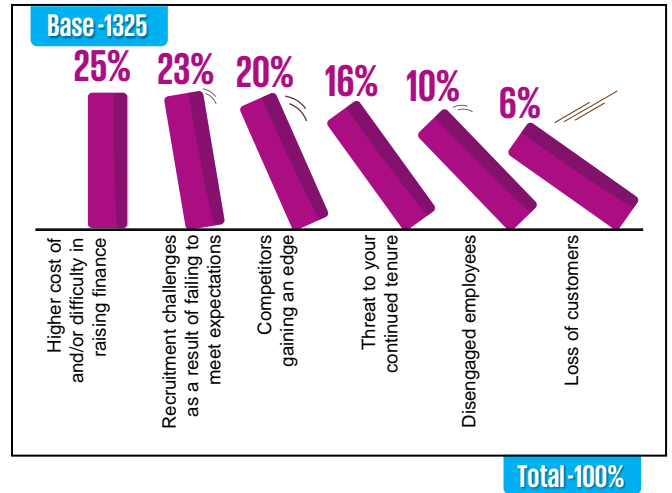
2. CaixaBank Research, caixabankresearch.com/en/economics-markets/public-sector/eus-answer-inflation-reduction-act-you-cannot-have-dessert-until

The ESG outlook: Indian CEOs

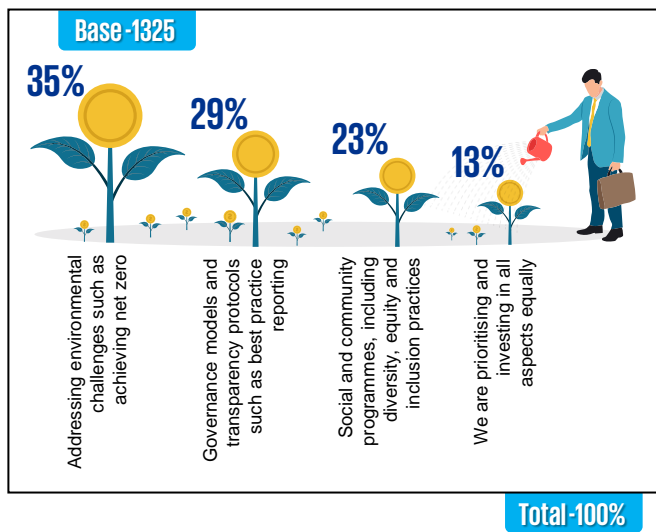
Q. When do you anticipate you will see a significant rate of return for your ESG investments?



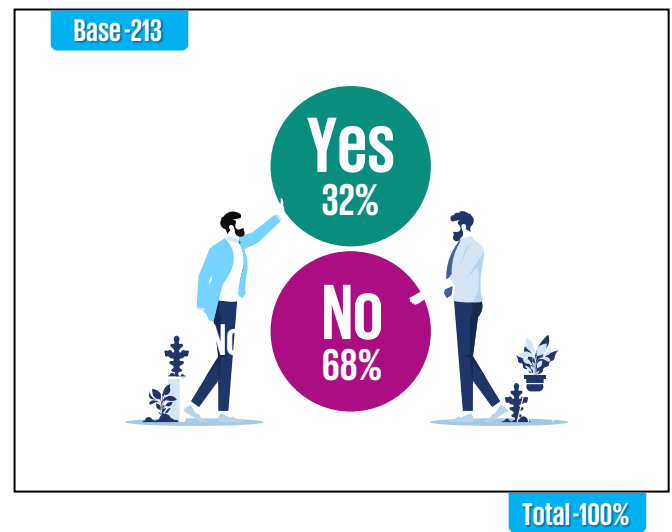
Q. What is the principal downside of failing to meet the expectations of stakeholders when it comes to ESG?



Q. Which aspect of ESG are you prioritising most when it comes to your investment strategy?



Q. Are you prepared to withstand the potential scrutiny from these stakeholders or shareholders?



For effective corporate governance of ESG, the board should be asking the following 10 questions:

1. Are the differences between ESG, Corporate Social Responsibility (CSR) and brand promise clearly defined?
2. What are the core issues for the company/sector and how will this change in the next 10 years?
3. Does the company have a responsible digital strategy to collect ESG data, create sustainability reports across countries and leverage analytical tools to track performance of non-financial reporting?
4. How ready is the company to tackle reputational challenges that can emerge from business practices?
5. What are the major opportunities for change and how can they be prioritized?
6. How is the management understanding and developing business opportunities around the global momentum on ESG opportunities?
7. Does the board have the right set of skills to understand the relevant, material, existing and new set of ESG reporting standards?
8. Are there policies in place for effective ESG data governance?
9. Is the ESG data captured in real time?
10. What are the ways in which ESG has been embedded into the business to create value?

Effective corporate governance of ESG is becoming critical

Annual reports, quarterly earnings calls and investor briefings need to take not just financials into consideration but also account for all the non-financial information that till now has been ignored by large parts of the financial community. ESG data can now seriously impact corporate risk, investor perceptions and corporate wellbeing. Hence, effective corporate governance of ESG becomes essential. Corporate boards normally have governance expertise on accounting matters. Some of them, after India's CSR legislation that required board oversight, had started focusing on CSR as well. However, ESG is not CSR. It is about corporate strategy and management oversight of core business in the context of Environmental, Social and Governance standards. With such standards gaining momentum across institutional investors, it is now expected that it should be a part of the board agenda.

Investors in India and abroad now look to incorporate ESG factors into the investment process alongside traditional financial analysis. As part of this process, investment firms gather ESG data on companies and use it to make decisions on valuation and the risk that a stock poses. With investors looking at ESG as a value-based dimension of their portfolio, they increasingly want to understand ESG performance the same way they would any other traditional financial measure.

The last two years have been marked by some of the biggest disruptions to both people and the planet, with extreme climate change-related events causing widespread destruction and disruption. Investors now expect that companies have conducted a risk assessment and are taking steps to become resilient and adapt to the emerging challenges.

ESG risks include those related to climate change mitigation, environmental management practices, good work and safety conditions, respect for human rights, anti-bribery and corruption practices, and compliance with relevant laws and regulations.

It is increasingly clear that technology can drive change and accelerate climate action while mitigating risks. From making solar panels work better to more accurately predicting weather, machine learning tools can enable action on everything from reducing fossil fuel emissions to preparing for disaster threats. Machine learning can also help in accurately predicting climate-driven effects like floods and wildfires with powerful computers testing likely scenarios at a fine scale. By leveraging AI and data, companies can develop predictive models to anticipate future climate risks and assess the potential impact on their operations. By understanding these risks in advance, businesses can proactively implement measures to mitigate them, minimising disruptions and increasing resilience.



There is a lot that companies in India need to do to be truly ready to take sustainability reporting to the next level. With regulators across the world pushing for mandatory assurance of ESG reports, it is imperative for companies to comprehensively assess their level of readiness. Further, stakeholders expect more than just disclosures—they want to see tangible action on the ground and progress year on year. Hence, it is imperative to converge ESG strategy and reporting together with board-led oversight.

Sai Venkateshwaran
Partner, KPMG in India



ESG needs better data and data governance

The regulatory push, better science and increased scrutiny means that ESG metrics are now growing by leaps and bounds. By some estimates, there are over 1,000 discrete measures in ESG reporting. Environmental, Social and Governance Reporting Standards (ESRS) from the EU alone encompass over 100 reporting requirements and nearly 700 key performance indicators (KPIs).

The sheer scale of the ESG data problem is immense. Given that there is increased pressure on delivering higher frequency of ESG data to investors, consumers and governments, it is critical that the data should be correct, verifiable and available in real time.

Moreover, AI-powered recommendation systems and analytics will only provide accurate results if the base data is accurate.

Today, most companies work out of Excel sheets when it comes to ESG. This is because Enterprise Resource Planning (ERP) systems that most of them function on do not capture ESG data. These ERP systems were designed to measure and manage inputs, suppliers, costs, sales and receivables. Many times, production data may sit in legacy systems that might function independently, making emissions data extraction difficult. Further, new projects may have Internet of Things (IOT) systems to measure their productivity and efficiency and once again may not be integrated with other systems. Which is why, even for calculating carbon emissions accurately, different systems need to be looked at. Hence,

getting an integrated view is difficult.

Turning a blind eye to proper ESG data management comes at a significant cost and could have negative consequences on organisations. Some of these consequences include negative brand perception, regulatory fines and weak social licences to operate and more.

Effective ESG data governance requires a coordinated and centralised approach across multiple stakeholders. This can take place with new data architecture, data collection strategy across multiple locations and enhanced processes. For many organisations, this requires significant changes to the IT infrastructure ranging from applications to data integration, architecture and governance.

For instance, banks require not only the management and capture of ESG data but also financed emissions models, climate risk models, ESG scorecards, climate stress tests and climate-adjusted ratings. Some are calling this transition, the 'SOXification of ESG', alluding to the controls and processes that came into place after the introduction of the Sarbanes-Oxley Act (SOX).

Accurate ESG data and the use of AI models will eventually encourage stakeholders to adopt sustainable business strategies. By providing insights, suggestions and incentives, companies can empower consumers and investors to engage in more sustainable choices, leading to collective environmental impact.



Advances in AI offer unprecedented opportunities for companies to advance their ESG agenda through better insights, monitoring and risk mitigation. AI can, therefore, be a transformative force, delivering competitive advantages, including operational efficiency, business resilience and brand reputation.

Chaitanya Gogineni

Partner, Data, Analytics and AI, KPMG in India



Real-time ESG

In today's world, and increasingly in the future, we are looking at real-time responses to everything.

Real-time dashboards can help companies tackle problems when they occur. Corporations tend to use real-time financial information to drive innovation, better decision-making and business transformation. Similarly, the main benefit to gaining access to correct, real-time ESG data is being able to forecast almost anything and take corrective action (environmental impact: waste, water and energy; social impact: human rights, health, education, safety; and governance) with unbelievable precision.

However, unlike financial data, ESG data comes in diverse formats and units. It is sourced from various parts of the organisation and is often recorded and stored in different systems, spreadsheets and documents.

To leverage sustainability data effectively for decision-making, it must be collected, transformed and reported with greater speed, frequency and scalability. Achieving this typically necessitates substantial technological solutions, new processes and business transformation at scale.

Using AI to scale ESG

AI can extract insights from data and improve automation of ESG processes and reporting.

AI can use third-party ESG data to build product-level emissions profiles.

AI can be used to manage and verify supplier emissions across disparate data sets.

AI can be used to ensure compliances across boundaries.



Intelligent ESG can drive real business value

Accuracy

ESG data accuracy helps to manage, plan and execute low-carbon strategies.

Cost

Less effort on lengthy manual reporting and data collection can free up resources.

Speed

Early visibility can enable quicker decision-making before problems escalate.

Insights

Gain additional insights into drivers of ESG metrics and link them to financial returns.

ESG processes need to be built up internally and for value chains

Most companies have a robust control framework in relation to financial reporting. However, ESG reporting is constantly changing with new requirements being mandated across the globe. Further, the standards that are being set are also evolving. Hence, most companies do not have set processes and controls around ESG reporting.

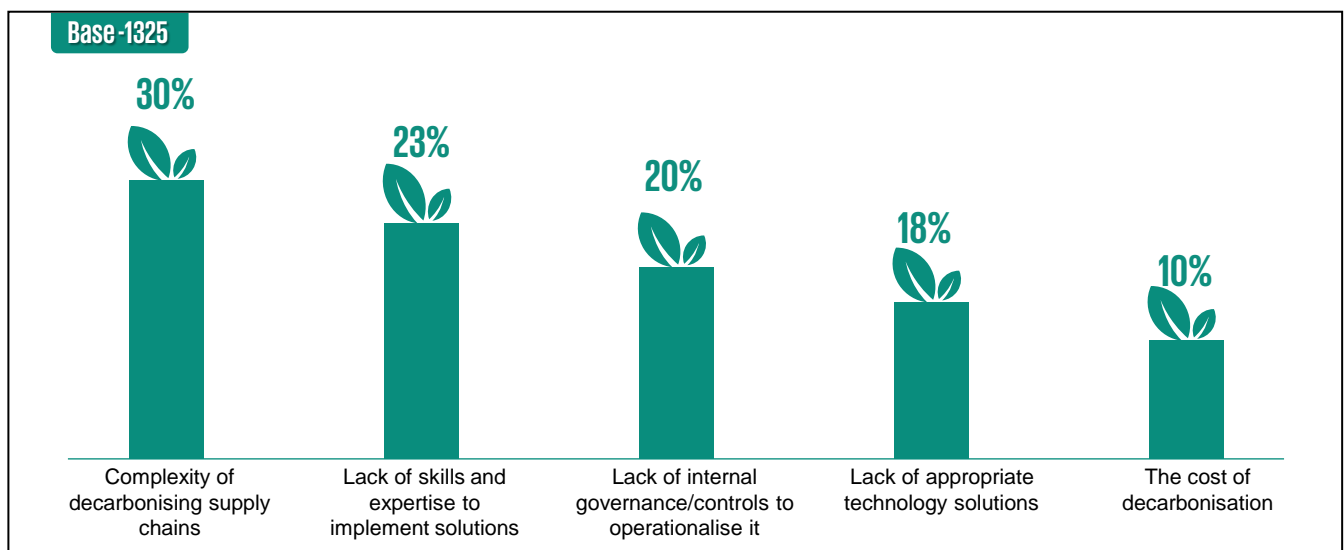
For organisations that operate in different countries, adhering to different ESG reporting requirements and standards requires robust systems and processes so that information is accurate and reliable. These controls and processes also need to be extended to the value chain partners because regulators across the world are now asking for data and reporting on Scope-3 emissions.

Reducing supply chain emissions will have a big role to play in reducing carbon emissions as they can account for a major portion of an organisation’s total emissions. While measuring, calculating and disclosing Scope-3 emissions can be challenging, applying AI and data analytics enable companies to gain visibility into their supply chains, identifying areas of high-carbon intensity and social or environmental risks.

By leveraging this information, businesses can make informed decisions about supplier selection, optimise logistics routes to reduce emissions and ensure adherence to sustainable practices throughout the value chain.



What do you believe is the greatest barrier to achieving net zero or similar climate ambitions for your organisation?



Total -100%

AI and climate are rewriting the rules of business!

India is on a growth trajectory. Historically, growth has always had a direct correlation with emissions. If India's growth were to continue, emissions too will rise. The question we need to answer is – how can we enable green / low carbon growth? Build the India of tomorrow, reduce poverty and yet be a low carbon economy.

AI adoption and its rapid scale-up is already redefining business boundaries and challenging traditional norms. The climate change crisis is expected to disrupt operations and policies of companies and organisations this year. With these two megatrends at play, how should companies adapt? What should they prioritise and what can be left behind?

For Indian companies that are leading the agenda on a global stage, growth strategies based on ESG and AI can lead the way.

How should you be thinking about this?

More than reporting

More than business as usual

More than resilient supply chains

More than profit

More than technology

More than reporting

As risks rise, so do investor expectations on mitigating these. ESG now consists of everything that doesn't sit in financial reporting with a thousand metrics and multiplicity of compliances. Moreover, social responsibility sits in the AI agenda as the escalating risks and implications become clearer. Investors want ESG intent and action such that ESG metrics become part of everyday operations. Once a year, reporting on ESG is not enough anymore as

investors dig deeper into social impacts and environmental challenges around business operations. What is needed is focus on low carbon operations, green supply chains, recycling materials and a long-term growth strategy that will protect and grow value through challenging times. For companies looking to raise capital in the domestic and international markets, ESG will be a critical element in their valuation.

More than business as usual

Given the vast spectrum of operations of India's large companies, creating a net-zero roadmap can look like an insurmountable task. Reducing emissions and creating a positive social impact require multiple projects that need to be designed and then implemented. Using technology such as AI to improve forecasts of energy supply and demand to reduce the price of power at off-peak times and cut demand during peaks can reduce significant costs and emissions for organisations across regions. Implementation of such projects involves people, changes in processes, new technology and, often, capital investments.

Moreover, sustainable products and services need to be at the core of long-term transformation. This is because if customers support you and buy your newer, greener products, the cost of the transition can be underwritten. Looking at new materials, new sources of value and circular supply chains can help organisations in entering new markets and score over global rivals. Indian companies can either target these new areas internally or buy out emerging organisations in the sustainability space. A focus on global and Indian customers that prioritise sustainability will bring benefits in the long run.

More than resilient supply chains

Advanced technologies are shaking up the world of supply chains. With quickly evolving capabilities across generative AI, data analytics, automation, machine learning, IoT, blockchain and more, the 'smart' supply chain is well on its way to becoming the new normal. But is this enough? Generative AI should be used to build more sustainable practices in procurement, ensure global compliances and provide transparency.

More than profit

As businesses look at creating new sources of value, new models will emerge that straddle the trifecta of technology, social responsibility and positive environmental impact. Reverse supply chains and on-demand manufacturing will drive growth in existing and adjacent areas for large businesses. Business operations will change too as AI and machine learning will be able to anticipate, produce and deliver products based on demand. This transition will be enabled by a new generation of customers who will demand corporate action against waste and brands that care not just for their profits but causes that create a better world.

More than technology

AI-led automation opens up new possibilities as it builds productivity-led tangible gains. Chief economists are almost unanimous (94 per cent) in expecting productivity improvements to become economically significant in high-income economies within the next five years, including 57 per cent expecting the benefits to emerge within the next three years.³ The potential gains from productivity benefits are in sharp contrast with concerns about the risks of automation, job displacement

and degradation. Companies will soon need to balance technology-driven models with social responsibilities so that they do not lose their social licence to operate. This is particularly important for a large developing economy like India, with significant differences across regions.

The future is not going to be more of the past. Multiple futures are possible, depending upon the choices we make. Can Indian companies make the right ones?

3. WEF Chief Economists Outlook, <https://www.weforum.org/publications/chief-economists-outlook-january-2024/>

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