

South Africa Economic Outlook

Are we on the brink of the fourth industrial revolution?

AI skills will accelerate worker productivity and increase economic growth.

28 October 2025

Ten key messages from this report

South Africa Economic Outlook October 2025



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1

Are we on the brink of the fourth industrial revolution? Like electricity in the 20th century, AI has the potential to create more jobs than it displaces if it is used to pioneer new forms of economic activity. Companies that embrace speed and encourage employees to operate flexibly will be the first to reap the benefits.

2

More AI-enabling breakthroughs were made in 2021-2024 than in the preceding 70 years. Since AI's proliferation in 2022, global productivity growth has nearly quadrupled in industries most exposed to AI. Human-AI collaboration increases productivity and speed by 50%, according to our analysis of client cases and internal AI applications.

3

Our research suggests that AI has the potential to boost global economic output by up to 15.0 percentage points over the next decade through innovation-driven growth. This is dependent on the nature of AI deployment, governance, and public and organisational trust. The most likely scenario (based on current trends) is for a 7.7 percentage points increase in global real GDP.

4

The number of job postings in SA requiring AI-related skills increased by 26% in 2023 and a further 8% in 2024. Last year, 17,000 out of 845,000 job advertisements required applicants to have AI-related skills. Education, ICT, agriculture, and professional and scientific jobs have the highest share of sector-specific job postings setting AI-related skills requirements.

5

In 2024, some 8.5% of education sector employment advertisements required some form of AI-related skills. South Africa's education sector is undergoing a digital transformation aimed at improving access, quality, and operational efficiency. AI plays a pivotal role in personalised learning delivery, operational efficiency and curriculum innovation.

6

Aside from an increase in the share of job adverts specifying AI-related skills, we have found that occupations exposed to GenAI are also seeing faster growth compared to jobs where AI skills are not required. From 2021 to 2024, vacancies for jobs that are more exposed to AI increased by 32% compared to only 14% for less-exposed jobs.

7

Business and administration professionals, administrative and commercial managers, teachers, customer services clerks, senior officials and legislators have the highest AI exposure in their jobs, while cleaner, helpers, food preparation assistants, building and related trades workers, labourers, and machine operators have the lowest AI exposure.

8

SA's potential benefit from AI will likely be smaller than the global average due to high levels of social inequality. We must make use of AI in a way that does not benefit just a small number of workers in the formal economy. SA needs a labour force that is both educated in, as well as open to the benefits of, AI across diverse occupations. This will require AI upskilling en masse.

9

Organisations are rethinking how they develop AI skills. Our approach is persona-based skills building that leverages data-driven learner personas to deliver tailored, high-impact AI learning experiences. The approach uses representative learner profiles to align training with the unique needs, motivations, and capabilities of different employee segments.

10

PwC can help business leaders identify skills gaps and mis-matches, build a future-proof skills strategy, develop and implement upskilling, and evaluate return on investment. The process includes 1) assessing the training needs; 2) analysing the dimensions of change; 3) designing the best training strategy; 4) creating an operational level training plan, and 5) measuring success.

About this document

The launch of ChatGPT 3.5 in late-2022 awakened the world to the power of AI. Just a few years later, we are on the brink of the fourth (AI-powered) industrial revolution. Microchips are the new oil, and data centres are the new factories. In this world, AI is the transformative power driving change in the workplace in a similar way to how the steam engine impacted the first industrial revolution.

AI accelerates all aspects of a business: from insights and decision-making to capacity building and organisational development. Companies that embrace speed and encourage employees to operate flexibly will be the first to reap the benefits. In South Africa, the number of job postings requiring AI-related skills increased by 26% in 2023 and a further 8% in 2024, as organisations embraced the power of this technology. AI-exposed occupations are also seeing faster growth compared to jobs that are less exposed to AI skills needs.

In this edition of the South Africa Economic Outlook, we draw on the best content from across the PwC global network to tell the story about AI, jobs, productivity, and the economy; adding fresh data and analysis for South Africa to provide some local context. Key content in this report includes:

- Potential impact of AI on future global economic growth and productivity ([page 5](#)).
- Education, ICT and agriculture have the biggest share of their vacancies requiring AI skills ([page 6](#)).
- Strong growth momentum in GenAI-exposed occupations in South Africa ([page 7](#)).
- Industry focus: Impact of AI on manufacturing jobs ([page 8](#)).
- Curriculum planning: Persona-based upskilling to provide workers with the right set of AI-related skills ([page 10](#)).
- The other 98%: Mass AI upskilling, or risk leaving many people behind ([page 12](#)).
- How we can help with AI upskilling ([page 13](#)).



Macroeconomic forecasts (28 October 2025)				
Baseline scenario	2023	2024	2025F	2026F
ZAR/USD	18.45	18.32	18.10	18.60
Consumer price inflation (%)	5.9	4.4	3.4	4.0
Repo rate (end-of-period)	8.25	7.75	7.00	7.00
Real GDP growth (%)	0.7	0.6	0.7	1.0
Unemployment rate (%)	32.1	31.9	32.4	32.8
Probability weighted average	2023	2024	2025F	2026F
ZAR/USD	18.45	18.32	18.13	18.64
Consumer price inflation (%)	5.9	4.4	3.4	4.1
Repo rate (end-of-period)	8.25	7.75	7.03	7.05
Real GDP growth (%)	0.7	0.6	0.7	0.9
Unemployment rate (%)	32.1	31.9	32.4	32.8

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AI is a transformative power driving change in the workplace today in a similar way to how the steam engine impacted the first industrial revolution. And, like electricity in the 20th century, AI has the potential to create more jobs than it displaces if it is used to pioneer new forms of economic activity. History shows us that once trepidation around transformative technologies like the steam engine, electricity and AI passes, these tools can create many more jobs than those that could be lost along the way. But—and this is very important—South Africa needs to use AI to the benefit of society as a whole, or risk leaving behind many people that have less access to technology.



Lullu Krugel, PwC South Africa Chief Economist

Gauging the potential impact of AI on future global economic growth and productivity

South Africa Economic Outlook October 2025

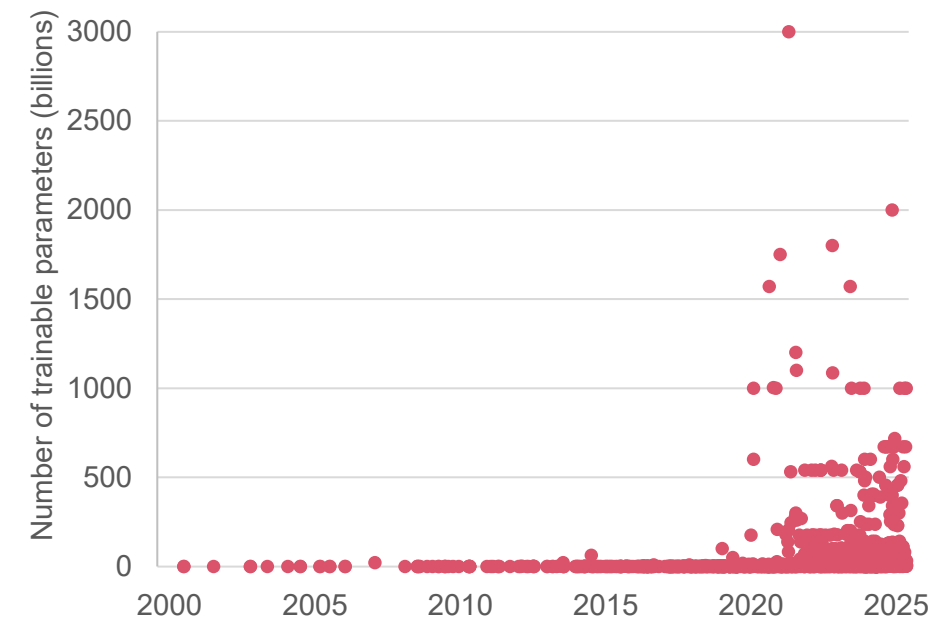
Summary: Breakthroughs in AI technology have increased exponentially since 2022. PwC's scenarios suggest that AI could boost global economic output by up to 15 percentage points over the next decade, though the most likely scenario projects a 7.7 percentage point increase. The size of the benefit is dependent on nature of deployment, governance, and public and organisational trust. In large companies, human-AI collaboration increases productivity by 50%.

Global productivity growth has nearly quadrupled in industries most exposed to AI.

A host of new technologies across areas as diverse as AI, robotics, energy storage, DNA sequencing, synthetic biology, blockchain technology, and materials sciences are approaching tipping points over the next five to ten years, when dropping costs will unleash demand across sectors and geographies—and encourage even more innovation. These tipping points are converging soon on the back of significant technological progress in recent years. Breakthroughs in AI, for example, have increased significantly of late: half of AI models ever released were published in the last 24 months. Figure 1 illustrates how the volume of model releases has accelerated in recent years alongside an increase in computing power.

AI and its increasing computing power is making workers more valuable, productive, and able to command higher wage premiums, with job numbers rising even in roles considered most automatable. [PwC's Global AI Jobs Barometer 2025](#) looked at close to a billion job ads from six continents and found that, since AI's proliferation in late-2022, global productivity growth has nearly quadrupled in industries most exposed to AI (e.g. financial services and software publishing), rising from 7% in 2018-2022 to 27% during 2018-2024. In contrast, the rate of productivity growth in industries least exposed to AI (e.g. mining and hospitality) declined from 10% to 9% over the same period.

Figure 1: AI models by release date and number of trainable parameters*



Source: Epoch AI (graph is based on 2,000 out of 3,000 models for which sufficient data is available)

*A larger volume of trainable parameters represents greater computing power which, in turn, allows for greater flexibility and learning capacity by the model.

AI could boost global economic output by up to 15 percentage points towards 2035.

Economists expect AI to have a meaningful impact on business and labour. According to the World Economic Forum (WEF) Chief Economists Outlook September 2025, two out of three of its panellists expect AI will be commercially disruptive over the next year. Four out of ten chief economists surveyed also expect that productivity growth will increase in the next 12 months due to AI. (PwC UK Chief Economist Barret Kupelian is part of this panel of 70+ thought leaders from around the world.)

Looking further ahead, [PwC's Value in Motion](#) research forecasts that AI has the potential to boost global economic output by up to 15 percentage points over the next decade through innovation-driven growth. Under the upside scenario, this would effectively add one percentage point to annual real GDP growth rates which is on par with the gains seen during the first industrial revolution (from the late 18th century to the mid-19th century). Of course, the global growth dividend from AI is not guaranteed, and depends on more than just technical success. It also hinges on responsible deployment, clear governance, as well as public and organisational trust. It is easy to imagine a world where national and regional interests take centre stage; where technology is more fragmented, less trusted, and less able to deliver on the productivity potential of AI. Based on current global trends, this is likely to be the situation over the coming decade. In a scenario like this, characterised by lower trust and co-operation, the incremental boost to the economy from AI would be more muted at 7.7 percentage points towards 2035.

At a practical level, how do economists see AI impacting business and the economy in the future? [PwC's Competing in the age of AI](#) report found that at large companies, for example, AI opens the door to new ways of working. AI agents offer potentially unlimited productivity while supporting employees with complex tasks. Human-AI collaboration increases productivity and speed by 50%, according to our analysis of client cases and internal AI applications. This leads to a shift: the traditional labour pyramid evolves into a diamond shape where human expertise and AI-driven intelligence both play a key role. For small- and medium-sized enterprises (SMEs), AI gives them the ability to operate at the level of large players. For example, a small fintech company can use AI to assess creditworthiness based on hundreds of variables. This leads to a higher number of approved loans and automated processes, allowing the organisation to grow faster and become more competitive against large market players.

Note that there is currently no uniform definition for AI. In general, the term is understood as the ability of a machine to imitate human abilities such as logical thinking, learning, planning, and creativity.



Education, ICT and agriculture have the biggest share of their vacancies requiring AI skills

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Summary: Our experts identified 376 relevant skills to help identify jobs impacted by AI-related requirements. The number of job postings in SA requiring AI-related skills increased by 26% in 2023 and another 8% in 2024. Education, ICT, agriculture, and professional and scientific jobs have the highest share of sector-specific job postings setting AI-related skills requirements. The education sector is undergoing a digital transformation aimed at improving access, quality, and operational efficiency. AI plays a pivotal role in personalised learning delivery, operational efficiency and curriculum innovation.

Foundational perspective on which SA industries and sectors are pivoting towards increased AI usage.

Our global experts compiled a list of 376 relevant skills to identify jobs that require AI capabilities. This was applied to employment data—3.4m job adverts in the case of South Africa—sourced from labour market intelligence provider Lightcast for the period 2021-2024. The number of job postings in South Africa requiring AI-related skills increased by 26% in 2023 and a further 8% in 2024. Last year, around 17,000 out of 845,000 jobs advertisements required applicants to have AI-related skills. While this is still a small fraction (2%) of overall advertised jobs, it does give us a foundational perspective on which industries and sectors are pivoting towards increased AI usage. As illustrated in Figure 2, education, ICT, agriculture, as well as professional and scientific jobs have among the highest share of sector-specific job postings setting AI-related skills requirements.

We now consider some of the key reasons behind the increase in AI skills demand in the top five sectors:

Education.

South Africa’s education sector is undergoing a digital transformation aimed at improving access, quality, and operational efficiency. AI plays a pivotal role in:

Figure 2: Share of sector job postings specifying AI-related skills



Source: [PwC’s Global AI Jobs Barometer–South Africa Analysis](#)

- Personalised learning delivery: Adaptive technologies enable tailored instruction based on individual learner personas. For example, in language-learning apps, AI chatbots provide bespoke conversation practice, real-time speech feedback, and pronunciation assistance.
- Operational efficiency: AI supports automation of administrative functions such as grading, scheduling, and resource allocation.
- Curriculum innovation: Institutions are integrating AI into teaching and learning to align with future workforce needs.

Information and communication.

As a foundational enabler of digital infrastructure, this sector is at the forefront of AI integration in South Africa. Key drivers include:

- Cybersecurity: Advanced threat detection and response systems increasingly rely on machine learning algorithms.
- Content and media automation: AI supports real-time analytics, content curation, and digital asset management.

- Customer engagement: AI-powered chatbots and recommendation engines enhance user experience across platforms. In retail, AI enables retailers to integrate disparate customer data, personalise customer journeys, and optimise operations for a consistent experience across physical stores, e-commerce, and mobile apps.

Agriculture, forestry and fishing.

AI adoption in South African agriculture reflects a strategic pivot toward precision and sustainability. Core applications include:

- Smart farming: AI-driven analytics optimise irrigation, fertilisation, and pest control. For example, AI-supported drones can pinpoint and diagnose individual plant illnesses from the sky and determine the applicable corrective actions for the farmer.
- Yield forecasting: Machine learning models improve crop prediction and supply chain planning.
- Environmental monitoring: AI supports biodiversity tracking and climate resilience strategies.

Professional, scientific and technical activities.

This sector encompasses high-value services where AI is a catalyst for innovation and efficiency. Notable applications include:

- Legal and consulting services: AI supports document review, risk analysis, and strategic forecasting. For example, PwC is already working on hundreds of GenAI use cases—both for clients and within our own organisation to drive efficiency and productivity.
- Research and development: AI accelerates data analysis, simulation, and discovery processes.
- Engineering and design: Predictive modelling and generative design tools are increasingly AI-enabled.

Strong growth momentum in GenAI-exposed occupations in South Africa

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Summary: Vacancies in South Africa for jobs that are more exposed to AI increased by 32% from 2021 to 2024 compared to an increase of only 14% for less-exposed jobs. Business professionals and managers, teachers, and customer service clerks have the highest AI exposure while cleaners, trades workers, and general labourers have the lowest exposure. Strong growth in AI-exposed vacancies is driven by factors like the need for leadership during times of uncertainty, business transformation, tourism and consumer spending rebound, and customer experience boom.

Vacancies for AI-exposed occupations increased 32% in 2021-2024 versus 14% for less exposed jobs.

Aside from an increase in the share of job adverts specifying AI-related skills, we have found that GenAI-exposed occupations are also seeing faster growth compared to jobs where AI skills are not required. From 2021 to 2024, vacancies for jobs that are more exposed to AI increased by 32% compared to an increase of only 14% for less-exposed jobs. For these estimates, we employed Felten’s AI Occupational Exposure Index (AIOE) which evaluates the potential for AI to perform a key job function. For example, business and administration professionals, administrative and commercial managers, teaching professionals, customer services clerks, chief executives, senior officials, and legislators have the highest AIOEs, while cleaners and helpers, food preparation assistants, building and related trades workers (excluding electricians) labourers in mining, construction, manufacturing, transport, and plant, and machine operators have the lowest index readings. See page 7 of [PwC’s Global AI Jobs Barometer–South Africa Analysis](#) for a visualisation of the data.

In Table 1, we consider some of the key reasons behind the growth in job opportunities for occupations with high GenAI exposure, and how AI is used by these workers.

Table 1: Growth in jobs for occupations with high GenAI exposure

Occupation	Drivers of high growth in this occupation	How AI is used on the job
Chief executives, senior officials and legislators	- Economic volatility and political uncertainty require agile leadership and decision-making. - Companies are reinventing business models to adapt to digital transformation, sustainability, and regulatory shifts. - Demand for leaders who can navigate global Megatrends.	- Predictive analytics for scenario planning and risk management. - GenAI for drafting policy briefs, speeches, and reports. - AI dashboards to monitor key performance indicators (KPIs), economic indicators, and stakeholder sentiment. - Natural language processing (NLP) to analyse legislation and regulatory changes.
Hospitality, retail and other services managers	- Post-pandemic rebound in retail spending. - Growth in e-commerce, omni-channel retail, and digital-nomad demand. - Rising middle-class consumption and international arrivals. - Managers needed to oversee tech-driven service models.	- AI chatbots and virtual assistants for customer engagement. - Dynamic pricing algorithms for hotels and retail promotions. - AI-powered inventory and supply chain optimisation. - Personalisation engines for tailored guest offers and shopping experiences. - Smart check-in/out systems in hospitality.
Customer services clerks	- Customer experience is now a key differentiator in competitive markets. - Call-centre and business process outsourcing sector is expanding due to rising global demand. - Growth in financial services, telecoms, and e-commerce drives customer support hiring.	- AI-driven chatbots to handle routine queries. - Sentiment analysis to detect customer frustration and escalate cases. - Intelligent ticket routing to reduce wait times. - Proactive AI engagement that anticipates customer needs.
Legal, social and cultural professionals	- Rising demand for legal services due to regulatory complexity and compliance needs. - Growth in NGOs, cultural industries, and social services addressing inequality and transformation. - Growth in creative industries (film, music, digital arts) supported by global streaming platforms.	- Legal AI tools for contract review, case law research, and compliance checks. - AI translation and transcription for multilingual legal work. - GenAI in creative industries (scriptwriting, design, content creation, etc.). - AI ethics and governance frameworks increasingly part of legal/social work.
Business and administration professionals; administrative and commercial managers	- Business and finance are the most in-demand sectors in South Africa with a strong track record of higher sectoral growth rates. - Companies need skilled managers to drive efficiency, compliance, and digital transformation. - Growth in SMEs and entrepreneurship requires more administrative and commercial oversight.	- AI-powered Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) systems for workflow automation. - Robotic Process Automation (RPA) for repetitive admin tasks (e.g. invoicing, payroll, scheduling). - AI forecasting tools for sales, budgets and resource allocation. - Document automation for contracts, reports, and correspondence. - AI assistants for scheduling, meeting summaries, and task management.

Source: PwC

Industry focus: Impact of AI on manufacturing jobs

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Summary: Adopting AI in R&D can reduce time-to-market by 50% and lower costs by 30%. Half of South African manufacturers surveyed expect increased sales (57% of respondents) and reduced operating costs (50%) due to the positive impact of AI on their operations. In a use case example, a large commercial vehicle manufacturer who introduced AI tools for its procurement achieved reduced time needs for low value-added tasks, increased accuracy on tasks completed, and higher staff satisfaction.

Adopting AI in R&D can reduce time-to-market by 50% and lower costs by 30% in industries like automotive and aerospace.

Multimodal AI—capable of processing and generating diverse data types, from computer aided design (CAD) files to simulations—is revolutionising product design and broader research and development (R&D) processes in the secondary sector. For example, GenAI tools can propose improved configurations for a car chassis, simulate performance under different conditions, and even suggest designs that engineers might have overlooked. At the task level, AI can help teams iterate diverse designs in hours not weeks, test solutions virtually before building prototypes, and troubleshoot more problems before you move to production. [PwC’s AI Business Predictions 2025](#) states that, based on our work with clients and our analysis of technology and industry trends, we are confident that adopting AI in R&D can reduce time-to-market by 50% and lower costs by 30% in industries like automotive and aerospace. In many pharmaceutical companies, AI has already helped reduce drug discovery timelines by over 50%.

This opportunity for grand change in the industrial sector is important for South Africa considering that manufacturing contributes around 13% of the country’s GDP. In addition, employment in South African factories totalled 1.7m in 2025Q2, accounting for one in every ten jobs in South Africa. Exports drive the sector’s significant contribution to the economy: South

Africa exported more than R400bn worth of machinery and complex manufactured products in 2024, accounting for 20% of total goods exports. This highlights the country’s industrial capabilities and advanced factory environment, which produce high-tech and precision equipment for domestic and international use. For example, South Africa hosts world-class factories for major North American, European and Asian automotive brands, exporting vehicles to more than 150 countries. Among BRICS nations, South Africa has one of the highest ratios of machinery versus complex manufactured product exports, showcasing its industrial and technological strength in a global context—and opportunities for embracing AI in manufacturing.

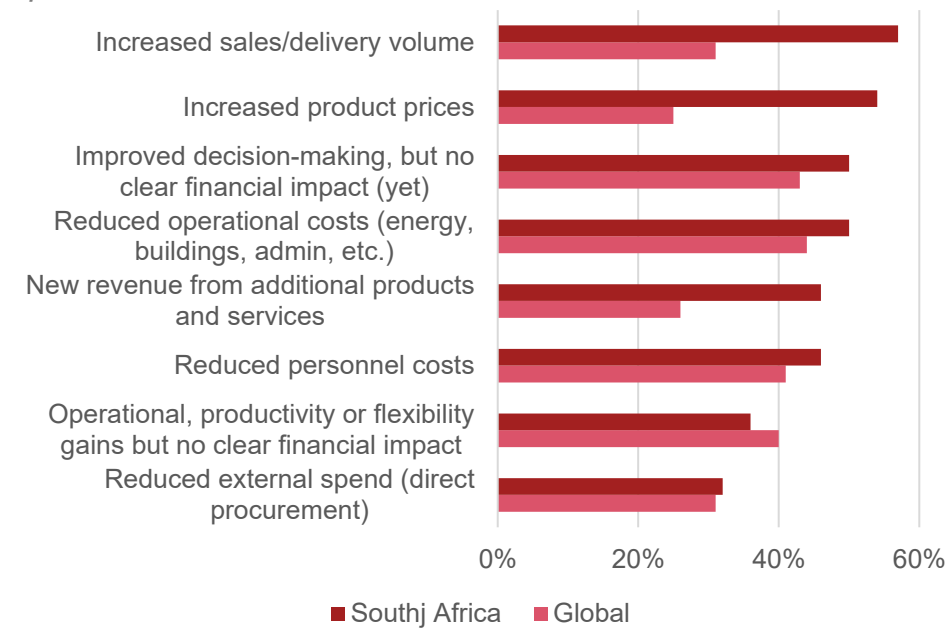
Half of manufacturers expect AI to deliver increased sales and reduced operating costs.

While widespread changes to business models are not yet evident in the factory sector, the potential for both traditional and emerging forms of AI to reshape the competitive landscape is immense. [PwC’s AI in operations: Revolutionising the manufacturing sector—South Africa perspective](#) commented that AI tools are enabling profound changes to R&D, procurement, supply chain and production processes, which promise to significantly enhance value chains going forward. Half of South African manufacturers surveyed expect increased sales (57% of respondents) and reduced operating costs (50%) due to the positive impact of AI on their operations. The top AI use cases are logistics route optimisation, quality control, and supplier selection and management.

Case study: A large commercial vehicle manufacturer has streamlined its procurement process by automating the task of assigning commodity codes, thus improving the handling of low-value orders. Despite having a digital system in place, the need to manually verify orders posed severe challenges. More than 40,000 orders annually needed to be checked manually by the operational procurement teams to correctly assign commodity



Figure 3: Manufacturers’ expectations about AI benefits to their top and bottom lines



Source: [PwC’s AI in operations: Revolutionising the manufacturing sector—South Africa perspective](#)

codes which were not commonly defined across different groups. To tackle these challenges, an AI solution that uses advanced models to enhance document classification and code assignment was introduced, along with a strategy to ensure reliable data extraction and validation, making the AI solution more dependable. Automation tools were integrated with existing systems to create a setup that can be improved over time.

The result of this AI implementation is threefold:

- Procurement staff spend less time on low value-added tasks like commodity code assignment, which is now automated for more than 80% of low-value orders.
- The accuracy of code assignments has improved, thereby increasing data quality and avoiding process issues.
- Procurement staff satisfaction has increased massively since people do fewer operational tasks that are ‘boring but necessary’.

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When you provide people with the latest technology tools like AI, the skills and guardrails to use them responsibly, and the power to innovate and reinvent how they get work done, the results can be transformative. Employees will accelerate their own ability to collaborate, perform and boost their productivity with the use of AI. It does not replace your ability to think but rather makes you a better thinker. It does not replace your ability to solve problems but makes you a better problem-solver. And this will free up time for employees, allowing for deeper thought processes to be used for value-adding activities.



***Dr Dayalan Govender, People and Organisation
Leader, PwC South Africa***

Curriculum planning: Persona-based upskilling to provide workers with the right set of AI-related skills

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Summary: AI is revolutionising productivity by automating tasks, saving time, and enhancing efficiency—comparable to past industrial revolutions. Tools like online meeting transcription bots free millions of labour hours daily. Organisations are also evolving talent development through persona-based skills building, tailoring learning to individual needs and roles. This approach boosts performance, accelerates growth, and promotes inclusivity by recognising diverse learning styles and career goals.

Aligning AI content with individual needs and preferences through persona-based upskilling.

The exponential growth in AI capabilities is creating the potential for an intelligence revolution that could be as significant as the physical one unleashed in the 18th century by the steam engine and extended by the 19th-century revolutions in transportation, communication, distribution and production. There has never been a cognitive productivity tool like AI, and we are only beginning to see what it can do. [PwC’s leader’s guide to Value in Motion](#) notes that when, for example, you receive a summary of a video meeting by email, moments after it ends, with no human intervention, you are seeing a mundane but useful example of AI’s power. The AI bot embedded in online meeting software saved an employee (someone who previously needed to transcribe the discussion) some 20 minutes or so. Multiply those savings times by millions of online meetings every day, and you free up millions of labour hours that can be put to better use.

Aside from deciding on what AI-related skills are important, organisations are also rethinking how they develop talent. Crucially, this development must integrate AI capabilities with essential human skills such as critical thinking, creativity, and collaboration, recognising that these cannot be trained in isolation. One emerging approach that we favour is persona-based skills building: a method that leverages data-driven learner

personas to deliver tailored, high-impact learning experiences. The approach uses representative learner profiles—known as personas—to align training with the unique needs, motivations, and capabilities of different employee segments. Persona-based skills building enables organisations to align content with individual needs and preferences; accelerate capability development through targeted and role-relevant learning pathways; drive measurable outcomes by focusing on the skills that matter most to business performance; and foster inclusivity

by recognising diverse learning styles and career aspirations. Table 2 identifies five hypothetical personas and the depth of AI-related skills required. In this example, all five personas would receive foundational learning, with progression to specialised Power User and Champion roles based on individual interest, capability, and attitude for advanced opportunities. In the case of the Builder and Expert jobs, these employees are predefined based on their role within the organisation—this would include data analysts recruited for that specific skill.

Table 2: Five AI skill personas

AI Literate User	AI Power User	AI Champion	AI Builder	AI Expert
(All employees across all levels)	(Early adopter employees)	(Employee with a keen aptitude to drive AI)	(Functional specialists, e.g., people analyst)	(E.g., Data scientists, developers, architects)
The bedrock of an AI-powered organisation. These individuals learn to efficiently complete daily tasks using AI assistant tools (e.g., M365 Copilot), apply data classification and retention rules, and follow AI business guidelines. They are empowered to seamlessly integrate AI into their daily workflows, freeing cognitive capacity for more strategic and creative endeavours.	Individuals who emerge from the AI Literate User group, demonstrating proactive interest and aptitude in exploring AI’s potential beyond basic use. They are confident in crafting effective prompts, capable of building lightweight AI solutions (e.g., Copilot Studio bots), and adept at automating simple workflows. They act as internal advocates, teaching peers fundamental AI skills and fostering broader adoption.	These individuals are not just users but facilitators and mentors with a keen aptitude to drive AI adoption and cultivate an AI-positive culture. They are equipped to lead cross-divisional digital clinics, model safe and ethical AI usage, and coach teams through new AI-integrated processes. AI Champions provide invaluable on-the-ground support, demystifying AI and inspiring colleagues to embrace new tools and ways of working.	Functional specialists who bridge the gap between business needs and technical solutions. AI Builders are empowered to construct low-code AI helpers using platforms like Power Apps, Power Automate, or Copilot Studio. They innovate within defined guardrails, creating bespoke applications and automated workflows that address specific functional pain points and enhance efficiency within their domains.	Highly specialised technical professionals who are at the forefront of designing, developing, and deploying enterprise-grade AI applications and data products. They leverage advanced development AI assistants (e.g., Cursor/GitHub Copilot) and interact directly with Large Language Model APIs, ensuring stringent policy compliance and architectural integrity. AI Experts are responsible for building the robust, scalable, and secure AI infrastructure.

Source: PwC

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In the age of AI, persona-based training must nurture both the algorithm and the heart—teaching each unique role not just how to master intelligent systems, but how to remain intelligently human in their distinct contributions.



***Marthle du Plessis, Workforce of the Future
Platform Lead, PwC South Africa***

The other 98%: Mass AI upskilling, or risk leaving many people behind

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Summary: South Africa has a smaller potential economic benefit from AI compared to the global average due to high levels of social inequality. The economy must make use of AI in a way that does not benefit just a small number of workers in the formal economy. South Africa needs a labour force which is both educated in, as well as open to, the benefits of AI across diverse occupations. Even jobs like machine operators—not normally associated with AI-related skills—is seeing an increased need for human-AI interface competencies due to increased use of AI technologies in manufacturing and other sectors.

Envisioning three tomorrows. Scenarios for AI's potential impact on economic output.

Only 2% of South African job vacancies in 2024 included requirements for AI-related skills. This carries a warning for us when considering the big-picture positive impact forecasts that AI could have on economies: not everyone will be coming along for the AI ride. While our forecasts show that AI has the potential to significantly boost global economic output over the next decade, very few of us will likely be part of the human cohort that would create this output bonus. For the rest (read: vast majority) of the population, their jobs will be business-as-usual. For instance, South Africa had nearly 850,000 domestic workers in 2025Q2; an occupation among the least exposed to AI. The country's 1.4m plant and machinery operators are apparently in the same boat in terms of little to no upside for their occupation from AI tools.

PwC's Envisioning three tomorrows research looked to understand how AI and other factors like climate change could influence economic futures through a scenario planning approach. Scenario planning offers a structured way to consider a range of potential futures rather than definitive, singular forecasts. Based on this, we are envisioning three possible futures:

- **Trust-based transformation:** A coordinated, conscientious approach to tech deployment fosters broader societal benefits. The integration and responsible use of advanced technologies enable widespread productivity growth and job creation while supporting sustainable solutions and innovation. Frameworks for trust (including global standards and cooperation) are part of this picture.
- **Tense transition:** Regionalisation and nationalism give rise to tech systems that deliver benefits without the economies of global scale. Technology use is more fragmented compared to the trust-based transformation, less trusted and less able to deliver on the productivity potential of AI.
- **Turbulent times:** Atomised interests and divisive uses of technology hamper economic growth. Conflicts, instability, and ever-greater uncertainty may converge to erode trust in technology and its economic benefits. AI takes away more work than it creates.

We noted on page 5 that AI has the potential to significantly boost global economic output—up to 15 percentage points under the trust-based transformation scenario—over the next decade through innovation-driven growth. The boost to real GDP is forecast at 7.7 percentage points under the tense transition scenario (this is probably the most realistic future scenario) and a marginal 0.8 percentage points under the turbulent times scenario. Closer to home, due to South Africa's dual economic structure—including a marginalised, informal economy with very limited exposure to AI, and a modern, developed economy—the potential gains are notably smaller under all three scenarios. Our calculations show that the tense transition will see a small annual gain in real GDP and an aggregate benefit of 1.2 percentage points over the 10-year period due to a more fragmented use of technology across society. If AI is not used wisely and takes away more jobs than it creates, then the turbulent times this creates could result in AI detracting from South Africa's real GDP. In turn, if South Africa can reduce inequality of access to AI tools and move closer to a trust-based transformation, the upside for real GDP is closer to 6.0 percentage points towards 2035.

AI upskilling to overcome societal inequality and build skills

Inequality is a constant in South African discourse about the state of our society. Most often, this inequality refers to income and wealth. However, inequality can also include asymmetries in quality of education and access to technology. It is this broad social inequality that is limiting the potential benefit of AI to South Africa's economy. Asymmetry in access results in a child growing up in a township being highly unlikely to obtain the kind of AI-related skills that would enable them to use this productively in the labour market. The digital divide is stark.

With this in mind, we need to consider how South African society can make use of AI in a way that does not benefit just a small number of workers in the formal economy. To ensure that the economic benefits of AI are widely shared across communities, South Africa needs certain key enablers that will create a labour force which is both educated in, as well as open to, the benefits of AI across diverse occupations. From a training perspective, upskilling people young and old with AI abilities needs to happen en masse. It will require training of the youth at school and making available opportunities for adults at work and community centres for example. Here it is also important to consider sector-specific AI skills requirements: AI solutions need to be tailored to specific sectors to improve productivity and service delivery.

We also need South Africans to see the potential of using AI skills in their next job. For example, we've noted that plant operators have among the lowest readings on Felten's AIOE, suggesting little or no scope for meaningful benefits for these workers to have AI skills. In fact, there are already many AI use cases for workers operating heavy machinery. An excavator operator on a large construction site can interact with AI systems that help the machine stay clear of underground hazards and/or unstable terrain by using sensors and real-time data. In the future, these excavators could come with AI guidance systems that suggest optimal digging angles, depth, and speed—this will require operators to have a competency in human-AI interfaces.



Economics services and contacts.

South Africa Economic Outlook October 2025

How we can help with AI upskilling

We work with clients to connect the dots between their business strategy and how they can align their people to deliver on business goals. For this, companies need the right people, with the right skills, in the right places, at the right time, and for the right cost. Our Skills Audit/Skills Assessment solutions serve not only to understand what an organisation’s current skills gaps are but also baseline their skills and competencies against evolving skills (like AI) that will be required as the organisation transforms and adapts to macro trends.

AI, automation, data analysis, and other emerging technologies can deliver worker productivity. However, technology is only as good as the leaders who identify its opportunities, the technologists who deliver it and the people who work with it every day. That is where some companies are coming up short: the right mix of skilled and adaptable people, aligned to the right culture and with the right mindset and behaviours can help power their business.

We can help business leaders identify skills gaps and mismatches, build a future-proof skills strategy, develop and implement upskilling, and evaluate their return on investment. This will upskill the workforce to meet the needs of today and tomorrow’s digital landscape. The upskilling and learning approach cover five viewpoints:

1. Assessing the training needs
2. Analysing the dimensions of change
3. Designing the best fit-for-purpose training strategy
4. Creation of an operational level training plan
5. Measurement of success.

Our services

The PwC South Africa Strategy& Economics team is a specialised unit of economists who serve our clients in a variety of ways. Our services include:

Measure your impact on the economy and society

- Economic Impact Assessment (EIA)
- Socio-Economic Impact Assessment (SEIA)
- Regulatory Impact Analysis (RIA)
- Environmental, Social and Governance (ESG)
- Total tax contribution
- Localisation calculations

Make decisions about risk and investment

- Macroeconomic research
- Market entry analysis
- Country and industry risk assessments
- Commercial due diligence assistance

Plan for future economic scenarios

- ESG scenario planning
- Economic and political scenario planning
- Industry and macroeconomic modelling
- IFRS 9 audit assist

Please visit our website to learn more:

<https://www.strategyand.pwc.com/a1/en/solutions/purpose-led-economics.html>



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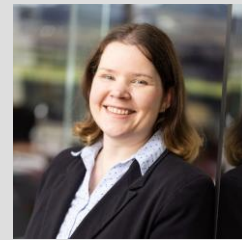
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