



The South African AI Workforce Landscape

Profiling what works, the gaps, and the case for a national AI Skills Alliance

Researched and produced for Microsoft Elevate
By Collective X

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Contents

Executive summary	Page 3
Key figures at a glance	Page 4
01 Introduction and purpose of this paper	Page 5
02 The South African AI and digital economy: sizing demand	Page 5
03 The supply side: institutions, pipelines and the experience gap	Page 7
04 Policy, funding and the coordination deficit	Page 8
05 Workforce accelerators and the value of work-integrated learning	Page 9
06 The case for a National AI Skills Alliance	Page 14
07 Conclusion	Page 17
References	Page 18

Executive summary

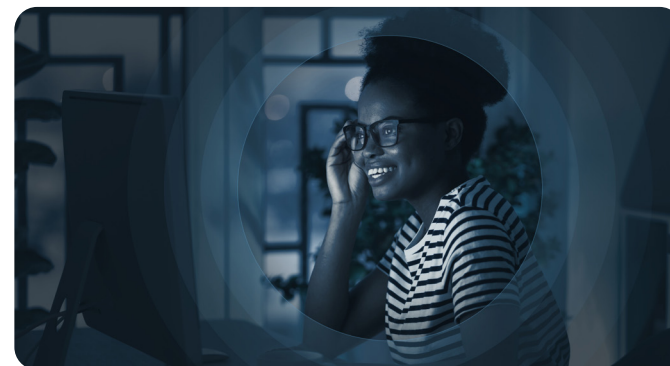
South Africa stands at a defining moment in its relationship with technology and work. The country's unemployment rate remains among the highest in the world, with Statistics South Africa recording an official rate of 32.7% and a youth (15–24) unemployment rate of 60.9% in the first quarter of 2026. At the same time, South Africa's digital economy is expanding rapidly. The domestic artificial intelligence market grew by approximately 31% year-on-year between 2023 and 2024 and is projected to more than quintuple from roughly R10.4 billion in 2025 to over R52 billion by 2030. Research by Collective X estimates that there are approximately 318,000 information and communications technology (ICT) positions in the economy, with 118,000 vacancies - a vacancy rate of 27.2% - and nearly 41,500 of those vacancies at junior level. Ninety one percent of surveyed South African employees report using artificial intelligence tools at work, the highest adoption rate globally, even as a hundred percent of African organisations surveyed by SAP and IDC report an increase in demand for AI skills in 2025.

This paradox of an over-supplied labour market that cannot meet employer demand for digital and AI-enabled talent reflects a fragmented skilling system in which funding flows, curricula, credentials and hiring practices are only loosely coupled with one another and to the changing shape of work. No single institution in South Africa today has the mandate, neutrality, resources or convening authority to close the loop between demand, supply and inclusion at national scale.

This paper argues that a National AI Skills Alliance, a neutral, multi-stakeholder coalition convening industry, government, training providers, workforce accelerators and civil society, is necessary to unlock the productive potential of AI for South Africa's youth and its economy.

Drawing on policy documents, labour-market data, peer-reviewed research and the operational evidence of workforce accelerators, the paper profiles what is working, diagnoses where the system is breaking, and demonstrates why work-integrated learning (WIL), exemplified by the DigiLink model, is the single most effective delivery mechanism currently available for converting AI and digital training into inclusive employment.

The paper concludes by sketching the possible shape and focus areas of a South African AI Skills Alliance, while recognising that its detailed form, governance and work programme must be determined by the stakeholders it serves.



Key figures at a glance

South Africa's skills paradox:

60.9%
youth unemployment
ages 15–24

118,000

estimated ICT vacancies nationally

~20%–25%

junior ICT vacancies suitable for
early-career entrants, dependent on
job role

91.5%

of ICT roles are projected to face
moderate to high AI transformation

The evidence points to **work-integrated learning** as the
route from unemployment into digital work:

90%

long-term absorption,
Harambee DigiLink
(170 candidates)

4.5%

attrition across 170 DigiLink
candidates

81%

placement, WeThinkCode_
(over 1,867 completers)

99.9%

placement reported in
structured university WIL
partnerships (up to 99.9%)

The gap is coordination, not demand. Employers need digital and AI-ready talent and young people need a first rung into work; a national AI Skills Alliance would connect the two at scale.

Placement, absorption and attrition are distinct measures from different programmes. Sources: Statistics South Africa, QLFS Q1 2026; Collective X (2025); Harambee (2025); WeThinkCode_ programme evidence; Universities South Africa (2025).

SECTION

01 Introduction and purpose of this paper

Microsoft Elevate, supported by Collective X and an emerging coalition of industry, government and civil society partners, propose the establishment of South Africa's first neutral, multi-stakeholder AI Skills Alliance. The Alliance is intended to coordinate a shared agenda for AI skilling, workforce transformation and inclusive digital employment. A foundational output of this initiative is a research paper to set the context and establish the need for such an alliance.

This paper is not itself the national blueprint; rather, it is intended as a base from which the Alliance, once convened, can negotiate its detailed priorities, governance model, work programme and outcome targets. The paper is structured around the following themes: (i) the scale and nature of AI and digital skills demand; (ii) the capacity and gaps in the supply system; (iii) the coherence of policy and funding; (iv) the state of inclusion and equity; and (v) the broader employability context of the future of work.

The paper is structured in six sections. Section 2 profiles the South African AI and digital economy and quantifies demand. Section 3 assesses the supply side and identifies the principal gaps. Section 4 reviews the policy landscape and its alignment (or lack thereof) with the needs of employers and young people. Section 5 profiles workforce accelerators and considers the value of their approaches and the evidence that work-integrated learning materially improves digital employment outcomes. Section 6 makes the case for a National AI Skills Alliance, describes what it could look like, and outlines its focus areas whilst explicitly recognising that these are subject to further consultation.

SECTION

02 The South African AI and digital economy: sizing demand

2.1 A rapidly expanding AI market on a weak employment base

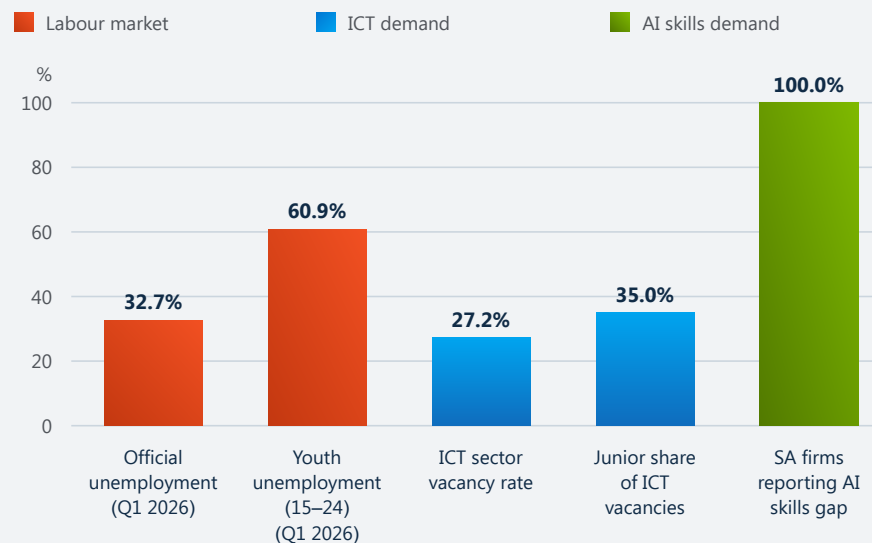
South Africa is simultaneously advancing in its AI usage and one of the most labour-stressed economies in the world. Industry intelligence suggests the domestic AI market will grow at a

compound annual rate of close to 38% to reach R52 billion or more by 2030 (TechHub AI, 2025), while McKinsey (2019) has long projected that digitisation, machine learning and automation could generate a net gain of up to 1.2 million jobs in South Africa by 2030, conditional on proactive investment in skills and industry adoption.

Set against this, the Quarterly Labour Force Survey for the first quarter of 2026 records an official unemployment rate of 32.7%, with unemployment among 15- to 24-year-olds at 60.9% (Stats SA, 2026). The World Bank (2025) estimates that sub-Saharan Africa will generate some 230 million digital jobs by 2030, yet warns that millions of young Africans remain structurally disconnected from those opportunities. Figure 1 summarises this paradox.

FIGURE 1

The South African skills paradox: high unemployment alongside critical digital and AI skills shortages



Sources: Statistics South Africa, Quarterly Labour Force Survey Q1 2026; Collective X, Decoding ICT Job Demand in South Africa (2025); SAP/IDC Africa AI Skills Survey (2025).

2.2 Where demand is concentrated

Collective X's 2025 Decoding ICT Job Demand in South Africa report, which analysed 32,082 vacancies on the Pnet / Career Junction platform, estimates the national ICT vacancy pool at approximately 118,000 positions against a total employed ICT base of 318,000, equivalent to a 27.2% vacancy rate. The top twenty job titles account for 78% of all vacancies, indicating that demand is highly concentrated in a small number of well-defined roles. These include software developers, web developers, IT support technicians and specialists, business analysts and Microsoft developers, with notable growth in cloud engineering, cybersecurity, data science and DevOps. Approximately 35% of these vacancies (some 41,500 positions) are junior-level roles suitable for early-career entrants, and average monthly compensation for junior ICT roles is approximately R25,000.

For AI-specific demand, the evidence is more nuanced. Roles explicitly classified as AI engineers or AI specialists remain a small share of total vacancies, but the World Economic Forum's Future of Jobs Report 2025 identifies big-data specialists, fintech engineers, and AI and machine-learning specialists among the fastest-growing roles globally. Critically, 86% of employers surveyed for the report identified AI and information processing as the single most important technology driver of business transformation to 2030. Six in ten African companies describe AI skills as 'extremely important' to their success, yet only a minority report having the internal talent to meet that need (Jobberman / WEF, 2025). This points to a pattern in which AI is being embedded across existing roles rather than generating large numbers of net-new 'AI' job titles, at least in the short term.

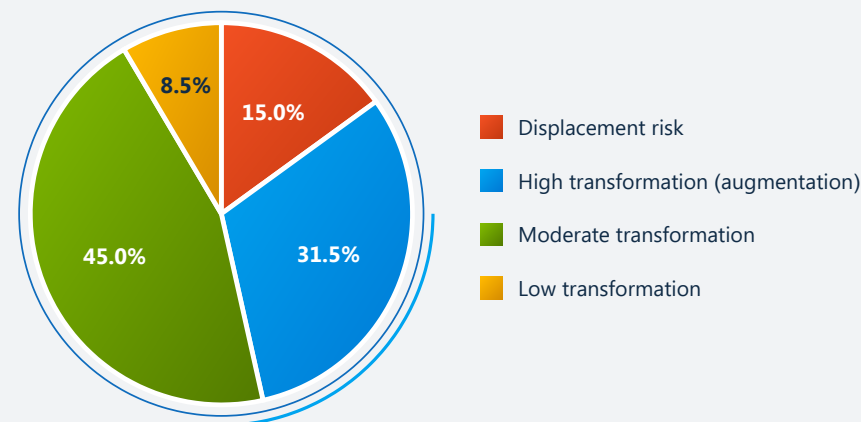
2.3 How AI is reshaping the existing workforce

Collective X's analysis concludes that 91.5% of South Africa's ICT roles are likely to experience moderate to high transformation as a result of generative AI, while a smaller share concentrated in manual software testing, routine IT support and rule-based administrative work is exposed to meaningful displacement risk. This mirrors global findings: Chui, Manyika and Miremadi (McKinsey Global Institute) estimated that while fewer than 5% of occupations can be fully automated with current technology, about 60% of occupations have at least 30% of their activities that are technically automatable. The implication is that the overwhelming majority of South African workers will experience AI as a change in the content and pace of their jobs rather than as outright replacement, provided that skilling systems move quickly enough to reskill and upskill them.

Figure 2 summarises this distribution.

FIGURE 2

Projected AI impact on South African ICT roles (share of 318,000 roles)



- 91.5% of ICT jobs expected to undergo moderate-to-high AI transformation
- Roles most at risk: IT support technicians, manual QA testers, routine admin
- Roles most augmented: developers, data analysts, cloud engineers

Source: Collective X, Decoding ICT Job Demand in South Africa (2025); author's analysis.

In line with this, Harambee Youth Employment Accelerator's (Harambee) own analysis of the AI transition concludes that the risk is not primarily one of mass job loss but of widening the gap between those with AI fluency and those without it. Particularly at entry-level, where AI-capable graduates are crowding out peers who lack both digital literacy and professional experience. A policy and programmatic response, therefore, must be to equip the entire entry-level pipeline with at least a foundational level of AI literacy and to create structured pathways through which that literacy is converted into demonstrable workplace capability.

SECTION 03 The supply side: institutions, pipelines and the experience gap

3.1 High enrolment and low transitions to work

South Africa's formal post-school education and training system produces a substantial stock of graduates each year through its twenty-six public universities, fifty public Technical and Vocational Education and Training (TVET) colleges, and a growing private higher-education sector. Graduate unemployment, at approximately 12.5%, is materially lower than the national average, but has roughly doubled over the past fifteen years (Inside Education, 2025).

The Department of Higher Education and Training's (2025) Revised Strategic Plan 2025–2030 explicitly identifies Fourth Industrial Revolution (4IR) skills, including AI, as a strategic priority, and the Integrated 4IR Sector Skills Strategy and Plan coordinated through the SETA system seeks to embed these capabilities across multiple sectors.

Nevertheless, three persistent weaknesses constrain the productivity of this pipeline for the AI economy. First, curriculum cycles in universities and TVETs are significantly slower than the pace of change in industry tooling and methods, with the result that graduates enter the labour market familiar with platforms and languages that employers have already moved beyond (Journals.co.za, 2024). Second, regional disparities in access to advanced digital infrastructure and specialised teaching staff mean that the pipeline is heavily concentrated in Gauteng and the Western Cape. Collective X notes, for example, that although Gauteng offers more junior developer vacancies in absolute terms, the Western Cape offers a materially higher probability of being hired and a faster hiring timeline. Third, the formal system has not resolved the 'experience gap': the requirement by most employers that even entry-level candidates present demonstrable workplace experience that the formal curriculum does not provide.

3.2 Non-formal training, bootcamps and private academies

A network of non-formal providers has emerged in South Africa to respond to the pace of digital and AI change. These include employer-funded academies, vendor-certification programmes offered by Microsoft, AWS, Cisco and Salesforce, and a tier of mission-driven providers including WeThinkCode_, Umuzi, CAPACITI Tech Talent Accelerator, Digify Africa, GirlCode and ALX.

Microsoft is working to expand the circle of opportunity that AI presents by strengthening education, workforce and nonprofit systems to help people thrive in the AI economy and is committed to growing the skills base of South Africans in AI and digital competencies. In 2025 the organisation committed to skilling one million South Africans in these domains, and in 2026 launched a partnership with the SABC to further bring accessible AI fluency learning to millions of South Africans through public broadcasting channels.

These non-formal providers arguably move more quickly than formal institutions, are more tightly coupled to employer needs, and achieve materially better employment outcomes. However, the ecosystem remains fragmented. Courses and micro-credentials are often not interoperable, employer recognition of non-formal credentials is uneven, and funding flows may be uneven. The result is that promising models struggle to scale, while employers lack a single, credible signal of readiness when they look at a non-traditional candidate pool.

3.3 The inclusion deficit

A final and defining feature of the South African supply system is the scale of its inclusion deficit. The World Bank (2025) reports that South Africa has one of the highest rates of youth NEET (not in employment, education or training) status among upper-middle-income countries, concentrated among young women, Black African youth, rural and township communities, and persons with disabilities. Digital skills are not evenly distributed across these groups: access to devices, connectivity and foundational digital literacy is strongly correlated with household income and geography (ILO, 2023). Without deliberate design choices to reach those young people currently furthest from the labour market, interventions to expand AI skilling will tend to benefit those already best placed to access them, deepening rather than narrowing the country's structural inequalities.

SECTION 04 Policy, funding and the coordination deficit

The policy landscape for AI and digital skills in South Africa has, in recent months, become markedly less settled. A Draft National AI Policy consolidating inputs from thirty-two stakeholder submissions was gazetted for public comment in April 2026. That draft has since been retracted: the government withdrew the policy after material errors, including flawed references, were identified in the published text, and the expert community that contributed to the original framework has been reconvened to rework it, with a revised draft reportedly targeted for early 2027. But each drafting cycle risks being outpaced by the technology it seeks to govern. At the time of writing, therefore, South Africa has no adopted national AI policy; the 2024 framework remains the most authoritative statement of government intent. That framework was deliberately innovation-enabling and human-centred, emphasising agile regulation, ethical deployment and whole-of-government coordination led by the Department of Communications and Digital Technologies (Adams & Adams, 2025; Deloitte, 2024). Complementary strategies such as the Digital Economy Masterplan, the Presidential Youth Employment Initiative, the DHET's Revised Strategic Plan 2025–2030, and the MICT SETA Sector Skills Plan 2025–2030 share a common diagnosis of the skills challenge and broadly compatible targets.

The retraction of the draft policy matters less for its content than for what it signals. In recent interviews conducted on behalf of Collective X a picture emerged of a persistent gap between policy ambition and implementation capacity: strategy documents, task teams and summits have multiplied while dedicated funding, institutional capacity and accountability for delivery have not.

Several argued that South Africa does not primarily have a planning problem but an execution problem, and that fewer, better-funded and evidence-led initiatives would achieve more than each new statement of intent.

Others noted that the absence of bespoke AI legislation is not the vacuum it is often portrayed to be: existing law such as the constitutional right to non-discrimination, labour legislation and Section 71 of the Protection of Personal Information Act, which restricts reliance on fully automated decision-making already provides meaningful recourse against the most immediate AI harms. The practical implication for skilling is that coordination should not wait for a revised national policy. A credible convening platform can hold a shared agenda steady across drafting cycles and give government a single, informed voice as the policy process continues to evolve.

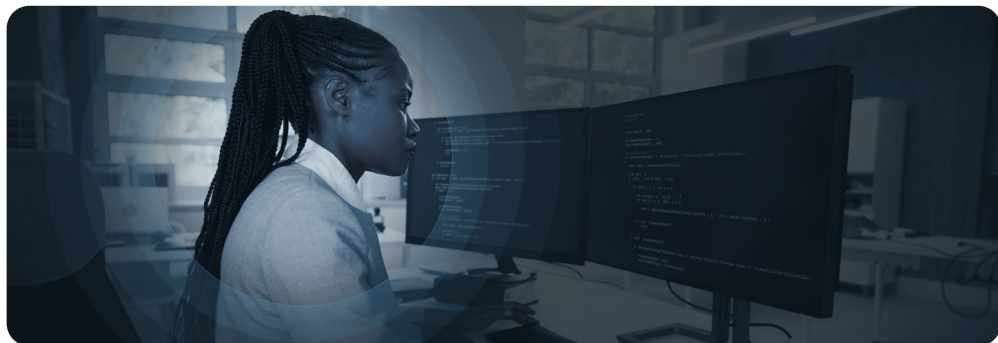
What is less developed is the coordination architecture that would translate these policies into coherent system-level action. SETA-funded learnerships, the Jobs Fund, the Presidential Employment Stimulus and a range of donor-funded initiatives currently operate in parallel, each with its own priority areas, reporting frameworks, and relationships with employers and providers. Harambee argues persuasively that South Africa's funding mechanisms need to be overhauled so that they are outcomes-led with payment tied to the delivery of employment rather than to inputs and activities, and that employers should have 'skin in the game' in the co-design of skilling pathways. Policymakers can create the enabling environment by optimising the Skills Development Levy to include work-integrated learning and micro-credentialing as qualifying activities, and by extending tax incentives and investment subsidies of the kind already offered to the Global Business Services (GBS) sector. The interviews that were conducted sharpen this funding diagnosis. Respondents across industry pointed to the scale of skills-development and empowerment expenditure that already flows but is poorly aimed: broad-based black economic empowerment spend channelled toward legacy accredited qualifications rather than AI-relevant or outcome-linked training, and enterprise-development budgets that produce upliftment activity without a defined market need or a job at the end. Redirecting even part of this existing expenditure toward demand-led, outcome-verified AI skilling would unlock funding at scale without new fiscal commitments. Several interviewees added that government's most powerful lever may be procurement rather than regulation: by acting as an anchor customer for locally developed AI applications in high-volume public services, the state would build domestic capability faster than any policy document. Existing mechanisms such as universal-service obligations on network operators, discounted public rates on spare network capacity, and the zero-rating of educational platforms, could meanwhile be used to remove the data-cost barrier that keeps poorer learners offline.

In the absence of such coordination, three costly inefficiencies persist. Employers over-invest in a narrow band of experienced talent and under-invest in entry-level pipelines. Training providers optimise for the funder in front of them rather than for a shared national outcomes framework. And young people, particularly those from under-served communities, navigate a confusing array of programmes with little visibility of which credentials are recognised, which pathways lead to employment, and which AI tools they will be expected to master in their first job.

SECTION 05 Workforce accelerators and the value of work-integrated learning

5.1 Workforce accelerators and why they matter

Workforce accelerators are distinctive institutions that have emerged in South Africa over the past decade in direct response to the failures described in earlier sections. They are mission-driven intermediaries that sit between employers and young job-seekers, combining elements of sourcing, assessment, training, placement and post-placement support within a single operational model. Examples include Collective X, CAPACITI, WeThinkCode_, Umuzi, and GirlCode amongst others.



PROGRAMME OUTCOMES - SOUTH AFRICA

Demand-led pathways into work

Programmes built with employers connect young people to jobs.

CODING ACADEMY WeThinkCode_

81%

of graduates
placed in jobs



≈ 8 in every 10

Over 1,867

programme completers

Two-year programme
NQF Level 5 accredited

UNIVERSITIES SOUTH AFRICA Work-integrated learning

Up to

99.9%

placement rate



Structured university–
employer partnerships.

Not a sector average.

HARAMBEE DigiLink initiative

90%

long-term absorption



From a cohort of
170 candidates

4.5% attrition

100% placement*

Simulation Academy and
Clickatell cohorts

Placement and long-term absorption are distinct outcome measures.

Sources: WeThinkCode_ programme evidence; USAf (2025); Harambee (2025). *100% placement: Simulation Academy and Clickatell partnership cohorts.

The distinctive value of workforce accelerators rests on four design features. First, they are demand-led: curricula are built backwards from specific, signed employer hiring commitments rather than forwards from standardised qualifications. Second, they use inclusive assessment tools (such as the potential and behavioural screeners that have been deployed through the SA Youth platform) to surface talent that would be missed by conventional qualification-based hiring filters. Third, they integrate technical training with holistic work-readiness support such as financial literacy, mental-health services, and transport support, which research on work integrated learning has long associated with higher completion and retention (Harambee, 2025; Jackson & Dean, 2023). And finally, rather than ending at graduation, they actively manage placement into permanent employment and track outcomes for at least twelve months post-placement.

The evidence base for their effectiveness is compelling. WeThinkCode_ reports that over 1,867 youth have completed its two-year NQF Level 5-accredited programme with an 81% placement rate. Universities South Africa (2025) cites WIL placement rates as high as 99.9% in structured university partnerships. Harambee's own DigiLink initiative achieved a 4.5% attrition rate and a 90% long-term absorption rate from 170 candidates, with certain cohorts (notably the Simulation Academy and the Clickatell partnership) achieving 100% placement (Harambee, 2025). These outcomes are an order of magnitude above what the formal pipeline alone produces for comparable cohorts.

5.2 Work-integrated learning: the operational engine

The single most important delivery mechanism used by successful accelerators is work-integrated learning (WIL). International peer-reviewed research consistently finds that WIL increases graduate employability, starting salaries and job satisfaction, and reduces time-to-employment (Jackson & Dean, 2023; Ferns, Rowe & Zegwaard, 2022). What the South African models add is a structured, outsourced programme design that makes WIL feasible at scale for employers who do not have the internal capacity to run programmes themselves.

FIGURE 3

The four-phase work-integrated learning model



OUTCOME: DigiLink pilot: 170 candidates • 4.5% attrition
90% long-term absorption • R25k avg. junior ICT salary

Adapted from: Collective X & Harambee, The Work-Integrated Learning Toolkit (2025); Harambee DigiLink Case Study (2025).

Figure 3 sets out the four phases of the model. Phase 1 focuses on employer partnerships, co-designing the curriculum around specific hiring commitments so that every training Rand is tied to a defined downstream role. Phase 2 is an inclusive assessment and selection process that draws from under-served communities. Phase 3 is the internship itself (12 months is indicated, but this depends on the nature of the job), beginning with two months of intensive onboarding and technical preparation and transitioning into ten months of real business work, organised into pods of participants under a dedicated team lead or mentor, and delivered through a hybrid model that may alternate client-site and hub-based days. Phase 4 manages the transition into permanent employment, including early placement conversations from month six, financial-literacy training for interns moving from stipend to salary, and structured employer handover.

5.3 How WIL addresses the AI skills and employment gap

Taken together, the evidence indicates that work-integrated learning addresses each of the major failure modes identified in the previous sections. It resolves the experience gap by producing candidates with twelve months of verifiable workplace practice. It reduces employer risk by outsourcing the early-stage management and coaching of talent without workplace experience, which is a principal reason employers are willing to pay a premium for WIL graduates. It increasingly embeds AI fluency in the workflow of the work itself, rather than as an abstract classroom topic. It is demonstrably inclusive, with cohorts drawn deliberately from young women, Black African youth and candidates from townships and rural districts, and youth with disabilities. And because it is modular, it can be stacked with formal qualifications, vendor certifications and micro-credentials to produce the kind of portable skills signal that have been identified as essential for a volatile, AI-enabled labour market.

The critical constraint is not the efficacy of the model but the coordination, funding and employer-mobilisation required to scale it. DigiLink absorbed 170 graduates over its pilot. South Africa needs to absorb tens of thousands of digital and AI-ready graduates per annum to keep pace with the growth of the AI market and to make a material contribution to reducing youth unemployment. That scale cannot be reached by any single accelerator, funder, employer or government department acting alone.

WORK-INTEGRATED LEARNING · FIVE BENEFITS

How WIL enables work



Source: Report Section 5.3; Collective X & Harambee (2025).

5.4 Evidence from the field

To complement the secondary evidence presented in preceding sections, pertinent observations from a set of semi-structured interviews conducted first with a group of demand-lead skilling practitioners and then with a wider group of stakeholders have been considered. These include workforce accelerators and skilling providers; leadership of technology, connectivity and financial-services companies; specialists in AI governance and law; academic researchers; officials and advisory structures within government; and young practitioners and founders who work with AI every day. In respect of the interviewees and their views themselves, no respondent is quoted directly or named in this paper, and what follows reflects the substance of what was said.

The interviews surfaced perspectives that both corroborate and extend the landscape findings above. Across all conversations, a clear consensus emerged that the demand for AI skills is evolving far more gradually and more unevenly than public discourse suggests.

Respondents noted that most employers have not yet developed coherent AI strategies and are not actively recruiting for discrete AI roles, instead AI is being absorbed into existing job profiles, with employers prioritising adaptability, critical thinking and problem-solving over specific technical AI competencies. Organisations that deploy AI tools often do so in isolated, low-return pilots rather than through transformative organisation-wide strategies. Respondents also cautioned against conflating AI with automation: genuine AI involves human-intelligence tasks such as reasoning, pattern recognition and decision-making, and this distinction has significant implications for how skilling programmes should be designed and targeted. A structural gap was identified between governance-level decision-makers, who largely lack the frameworks to evaluate AI investment and entry-level workers, who are often the most practically engaged with AI tools but lack the contextual knowledge to validate outputs or apply them meaningfully.

There was strong agreement that South Africa's most urgent AI skilling need is not volume-based training, but the development of contextually grounded, work-integrated pathways that combine technical AI fluency with human skills such as critical thinking, ethical reasoning and interpersonal capability. Respondents highlighted the risk of a widening digital divide if basic digital and AI literacy are not embedded in the schooling system, particularly for learners who lack access to quality technology education. At the tertiary and post-school level, the priority should shift toward enabling young people to use AI as a tool for

entrepreneurship, productivity and income generation. This includes the SME and gig economy sectors. Across all respondents, work-integrated learning was identified as the most proven model for bridging the gap between education and employment.

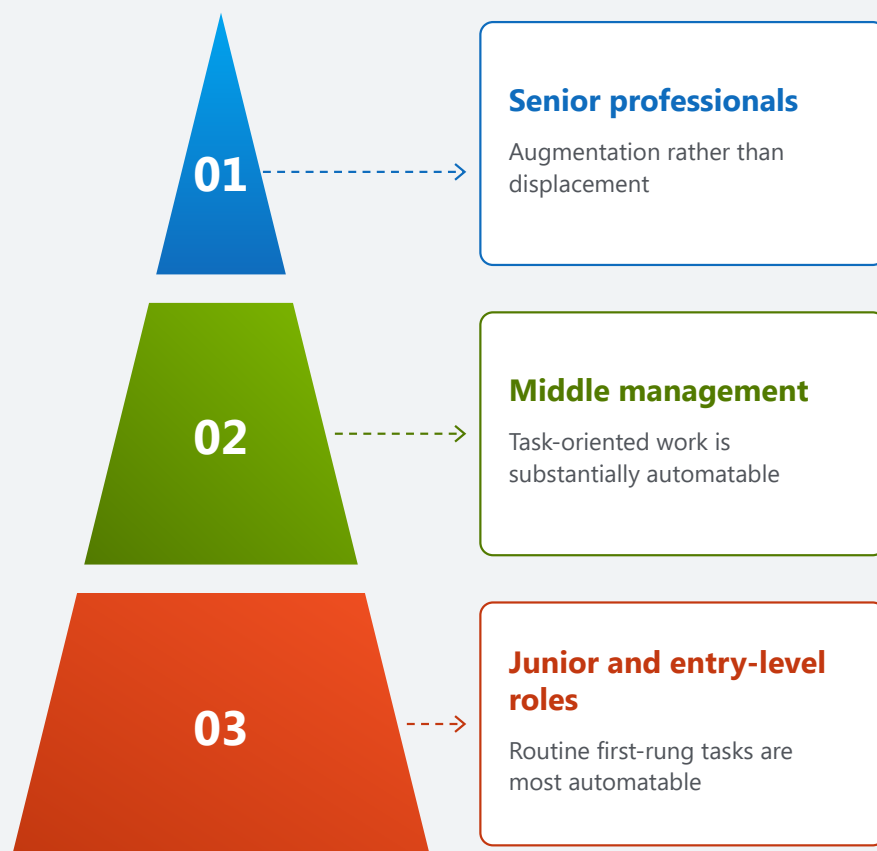
Respondents called for an AI Skills Alliance to be demand-led, practically oriented, and inclusive of youth voices. Key priorities identified included closing the foundational data and governance skills gap, providing simulated and real-world AI application experience, and ensuring that AI skilling programmes are rooted in Africa's specific economic and social challenges rather than imported wholesale from other contexts.

A recurring finding concerns the structural risk to middle management, rather than entry-level workers, as AI adoption deepens. Some respondents argued that AI is directly threatening to task-oriented management roles. These are the roles most centered on reporting, supervision and administrative coordination which are precisely the functions AI can replicate most readily. By contrast, entry-level workers represent a significant opportunity: AI tools can augment junior staff, allowing a smaller number of senior specialists to supervise far larger teams at lower cost. This reframes the conventional narrative around AI and job displacement. The same logic extends to micro-enterprises. Young people with limited formal qualifications can now use AI to access marketing, financial planning and business development capabilities that previously required specialist hires, with meaningful implications for local economic development and SME growth. Instead of using AI mainly to cut costs, respondents said companies get more long-term value when they use the extra time and capacity AI creates to develop new ideas and innovations. In other words, AI should be seen less as a tool for reducing jobs or expenses, and more as a way to help the business grow faster.

A further concern raised across respondents relates to the quality and provenance of the data underpinning AI systems in the South African context. Because most large language models and predictive algorithms are trained predominantly on Western data, their outputs carry systemic biases that may be poorly suited to and even actively harmful in African contexts. The implication for skilling is significant in that AI literacy must include data literacy, and any credible AI Skills Alliance must invest in building a cohort of data governance and records management specialists who can interrogate, contextualise and, where necessary, correct the outputs of AI systems. Without this foundation, the risk is not merely inefficiency but the active reproduction of inequality through algorithmic means.

AI AND WORK - PRACTITIONER PERSPECTIVES

Exposure across the career ladder



**AI can also augment junior staff when employers redesign roles.
Protect the entry route and the future leadership pipeline.**

Source: Report Section 5.4; practitioner interviews (2026).

Respondents identified a specific and actionable structural barrier within South Africa's current funding and regulatory environment. B-BBEE legislation, as currently configured, incentivises companies to direct skills development spend toward traditionally accredited qualifications rather than AI-specific or vendor-certified programmes, effectively channelling private investment toward legacy curricula. Addressing this misalignment by broadening what counts as claimable training under B-BBEE frameworks, as the ICT sector code already partially allows, would unlock a significant source of latent funding for AI skilling at scale. Alongside this, the current proliferation of low-quality AI courses will continue to produce credentials that signal little about actual capability or competency.

The expanded interviews add important nuance to the question of who is most exposed. Several senior respondents described an employment triangle: experienced professionals at the top are augmented rather than displaced; task-oriented middle management is substantially automatable; and routine entry-level work (data capture, first-line support, basic administration and rule-based clerical tasks) is the most automatable of all. Because these are precisely the roles through which young South Africans, and particularly young women, have historically entered the formal economy, the displacement risk is concentrated on the country's traditional first rung into work. One professional services example captures the resulting dilemma: firms are now asking whether to keep recruiting large annual graduate intakes when AI can perform much of the work those graduates would have done. Yet a firm that stops bringing people through its ranks has no leadership pipeline a decade later. The counter-argument, made with equal force, is that AI tools allow junior staff to be augmented so that fewer senior specialists can supervise far larger, less experienced teams. But only if employers deliberately redesign entry-level roles and build the trust and assessment mechanisms to recognise AI-augmented capability.

South Africa's global business services sector which employs more than 270,000 people carries an ambition of adding several hundred thousand further jobs by 2030. Respondents who have studied the sector closely argue that the immediate threat is not AI replacing South African agents but competitor countries such as India and the Philippines who are adopting AI faster, driving down the cost of serving customers and eroding South Africa's competitiveness before any wave of domestic automation arrives. The corresponding opportunity is to move up the value chain: combining the country's recognised strengths in English, empathy and time-zone alignment with AI tools, so that South Africa exports 'supervised judgment' such as complex customer interactions, claims adjudication, clinical and

legal documentation review, content moderation and AI-training data work, rather than low-cost labour. Interviewees consistently described the new role families this shift creates: AI-enabled service agents handling more complex conversations; workflow supervisors and human-in-the-loop reviewers; AI implementation and process-improvement associates; data-governance, records-management and cybersecurity specialists; and AI governance and compliance roles, in which respondents report advertised vacancies growing from a handful three years ago to hundreds today.

Respondents consistently identified that public investment should start with teachers. Respondents across government, academia and industry independently argued that teachers, lecturers and TVET trainers are the multipliers of AI literacy, that current teacher training barely addresses digital pedagogy, and that educators who do not understand AI will fear it and resist it. They argued for teacher AI-fluency development first, delivered alongside foundational literacy and critical thinking, which several respondents warned AI use can erode if it is not deliberately taught. On access, respondents were equally aligned: the binding constraint is affordability rather than infrastructure. Fibre, subsea capacity and mobile coverage are largely in place; what excludes poorer learners is the cost of data and devices relative to household income.

Practical mechanisms already exist such as zero-rated learning platforms, mobile-first design built for entry-level smartphones rather than laptop laboratories, and devices that remain at school, and respondents argued these should be treated as core skilling infrastructure.

Several respondents also connected AI directly to South Africa's foundational learning crisis. AI-enabled home-language instruction, built on South African language datasets, was often identified as one of the few feasible responses to a problem no teacher can solve alone, given that no school can staff fluency across eleven official languages.

On the issue of credentials, respondents converged on the view that long, certificate-based qualifications are losing signalling value while proliferating short AI courses signal little either. What is needed is an agile, nationally recognised micro-credential and badge system, recognised by government and employers and anchored in demonstrated competency rather than time served in a classroom. Such a badging system should be achieved through a combination of widely adopted global standards and credible verification that underwrites the authenticity of the credential/badge.

Finally, respondents reframed South Africa's youth from beneficiaries to the country's principal untapped asset and its most exportable one. Ageing economies are already recruiting young African talent, and several interviewees warned of the risk of losing this resource.

Two suggestions emerged. The first is to treat transition to earning, not only transition to employment, as the goal. Provide training that equips young people to use AI for entrepreneurship, self-employment and local economic activity, since a small business can now access marketing, financial planning and legal drafting support that previously required specialist hires. The second is that AI adoption is not only a bottom-up phenomenon: several respondents argued that leadership fluency is a precondition for national change, and that structured AI education for executives, senior officials, and board-level decision-makers must run in parallel with mass literacy programmes, because organisations do not adopt what their leaders do not understand.

SECTION

06 The case for a National AI Skills Alliance

6.1 Why an alliance is necessary

The preceding sections establish four conclusions. First, demand for AI and digital capability in South Africa is great, growing rapidly and concentrated in a well-defined set of occupations that already form the bulk of the country's ICT vacancy base. Second, the supply system, while ambitious and well-resourced in parts, is fragmented, too slow to change, and under-serves young people who are furthest from the labour market. Third, policy and funding instruments are broadly aligned in intent but weakly coordinated in practice, with the result that promising programmes cannot scale and employers cannot rely on a common outcome signal. Fourth, workforce accelerators and work-integrated learning in particular, have developed a proven playbook for converting training into inclusive AI-capable employment, but lack the institutional architecture required to scale it.

These conclusions converge on a recommendation that South Africa needs a neutral, credibly convened community that can align demand, supply, policy and funding around a shared agenda for AI skilling and employment. Comparable international models such as Singapore's SkillsFuture Council, Ireland's Skillnet Ireland, and the United Kingdom's Institute of Apprenticeships and Technical Education, demonstrate that such alliances can

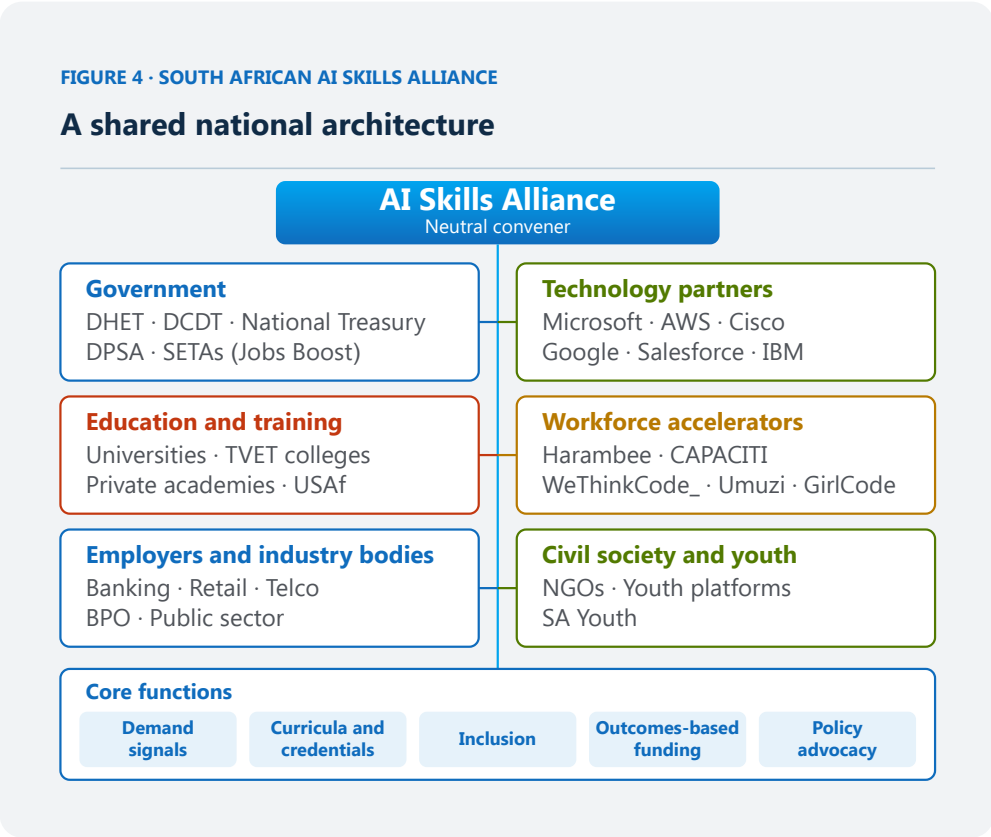
materially accelerate national skilling outcomes when they are properly designed (OECD, 2023; Skillnet Ireland, 2024).

6.2 What such an alliance might look like

The detailed design of an Alliance must be the subject of further consultation with stakeholders. However, the landscape evidence points clearly to a model architecture. The Alliance should be a neutral, multi-stakeholder body that is not owned by any single company, government department or training provider and which draws its legitimacy from the breadth of its membership rather than from statutory authority. Figure 4 sketches this architecture as comprised of six constituencies: government, technology partners, employers and industry bodies, workforce accelerators, education and training providers, and civil society and youth.

Within this architecture five core functions emerge as potential focus areas, subject again to stakeholder negotiation. The first is the establishment of shared demand signals: a national AI and digital skills demand dashboard that aggregates employer hiring commitments, vacancy data and skills-taxonomy information into a common picture that providers, funders and young people can use. The second is the alignment of curricula, credentials and assessment standards so that AI fluency, work-readiness and technical certifications are interoperable across providers and recognised by employers. The third is the deliberate engineering of inclusive pipelines, with measurable targets for participation by Black African, Indian, and Coloured people, youth, women, persons with disabilities, and young people from townships and rural districts. The fourth is the co-design of outcomes-based funding instruments, drawing on the experience of Jobs Boost, the Jobs Fund and SETA discretionary grants, to channel Skills Development Levy and private funds into work-integrated learning at scale. The fifth is policy advocacy and evidence generation, positioning the Alliance as the credible interlocutor for government on the AI and digital skills components of the National AI Policy, the Digital Economy Masterplan and the Presidential Youth Employment Initiative.

Notionally how would this work? Every partner joins with a named role and a named contribution, so that the Alliance is a co-owned coalition rather than any single organisation’s programme. Technology partners bring partners in, contributing to AI-literacy credentials, adoption and labour-market data to track how work is changing, catalytic milestone-gated seed funding, and advocacy for AI-literacy policy. Government owns the outcomes: it provides the public co-investment that multiplies seed funding, embeds credentials in national and provincial systems, and sustains delivery for at-risk populations beyond the life of any single programme. Employers and industry associations own demand and placement: they commit to hire and place skilled workers, co-design role-relevant skills, and co-invest through matched funding, apprenticeships and on-the-job experience. Workforce accelerators and delivery partners deliver at scale through train-the-trainer models, localised content, targeted recruitment of prioritised workers and managed placements. Organised labour secures trust and relevance by representing workers, co-designing curricula, reaching incumbent workers and safeguarding dignity and agency in the transition. Philanthropy, multilateral institutions and development finance multiply and de-risk the model through co-investment and outcomes-based financing. Education institutions and civil society provide reach and pathways to the young people and at-risk workers the system must ultimately serve.



There must be specificity about what such an Alliance must produce. Its output is not a training programme but a co-invested national framework for the AI and jobs transition that is built on five elements: a national workforce risk-and-opportunity map showing, occupation by occupation, where AI concentrates displacement risk and where it creates room for workers to grow; a co-owned charter in which every stakeholder has a named role and contribution; a skilling delivery engine that pairs localised AI-literacy credentials with train-the-trainer capacity inside national systems; a policy and co-investment package, on the principle that a plan only counts when government and employers have committed funding against it; and explicit targets, governance and a scorecard that make progress auditable. Success is measured in outcomes rather than activity. For example, the most exposed workers are measurably reskilled and redeployed; real public and employer co-investment is unlocked rather than donor subsidy extended; durable national capacity it creates that outlives the initial convening; and a repeatable, measured blueprint. Ultimately the practical test of such a framework is simple: it succeeds only if government would formally adopt it and employers would fund it.

6.3 Focus areas and an indicative work programme

Focus area	Illustrative work-programme components	Primary outcome indicator
A. Shared demand intelligence	National AI and digital skills demand dashboard; annual demand update; employer hiring-commitment register.	Vacancies matched and filled through Alliance-aligned providers per annum.
B. Curriculum and credential alignment	Common AI-fluency framework; interoperable micro-credentials; shared work-readiness standards; articulation into NQF.	Number of learners holding a recognised Alliance-aligned credential.
C. Inclusive pipeline engineering	SA Youth integration; alternative assessment tools; transport, devices and connectivity support; targeted outreach to under-served districts.	% of Alliance-supported placements meeting inclusion targets.
D. Outcomes-based funding	Financing pilots; tax-incentive expansion; employer co-funding covenants; WIL as a qualifying Skills Development Levy activity.	Rand value of outcomes-linked funding mobilised per annum.
E. Policy influence and evidence	AI Skills Awareness Platform; annual State of AI Skills report; formal advisory role to identified government departments.	Policy and regulatory instruments incorporating Alliance inputs.

The figures cited throughout this paper illustrate why each of these focus areas matters, but the Alliance itself must determine the priorities, the sequencing of activities, the governance model and the leadership. The present paper should therefore be read as the evidence base that justifies the convening of the Alliance and indicates the terrain of its work, not as a pre-commitment to any specific operational plan.



SECTION

07 Conclusion

South Africa's AI workforce landscape is one of rare simultaneity. The country has a comparatively high rate of workplace AI adoption, an internationally competitive ecosystem of workforce accelerators, and a youth unemployment crisis that is among the deepest of any large middle-income economy. This is an opportunity to be seized. What is striking, across both the secondary evidence assembled in this paper and the primary practitioner perspectives gathered through field interviews, is that the market failure is not due to ambition, awareness or even resources, but is one of coordination.

The landscape data and the practitioner evidence tell a consistent story across four dimensions. On demand, both the Collective X vacancy analysis and the accelerator interviews confirm that AI skills demand is real and growing but increasingly embedded in existing roles rather than concentrated in net-new "AI" job titles. Employers are not yet recruiting explicitly for AI competencies, but are already sorting talent on adaptability, critical thinking and the capacity to work alongside AI tools. The implication is that skilling programmes that treat AI as a discrete credential rather than a cross-cutting capability will systematically mis-serve the market. On supply, the formal education system and the non-formal provider ecosystem alike produce graduates who are under-prepared for the AI-augmented workplace. Curricula lag AI tooling cycles, quality assurance is uneven, and the absence of verifiable workplace practice remains common reasons employers screen out non-traditional candidates. Practitioner interviews added a further dimension to this diagnosis in that the proliferation of low-quality AI courses and the B-BBEE funding structures that channel skills development levy spend toward legacy qualifications are actively compounding the problem. This is directing investment away from the contextually grounded, work-integrated models that demonstrably work.

The alignment between the landscape evidence and practitioner perspectives is particularly sharp. The World Bank's finding that South Africa has among the highest rates of youth NEET status of any upper-middle-income country is echoed directly in the interview observation that AI skilling, if not intentional, will benefit those already best-placed to access it, deepening structural inequality. The algorithmic bias risk surfaced in the interviews where AI systems trained on Western data reproducing discrimination in African contexts, adds a dimension to the secondary literature. The risk is not only that excluded young people will miss the AI opportunity, but that poorly governed AI systems will actively disadvantage them. This makes data governance and data literacy foundational requirements for any credible skilling programme, not optional technical add-ons. Work-integrated learning is the most effective mechanism currently available and is also the model that every practitioner interviewed identified as the priority. AI skilling that is grounded in real work, oriented toward real

employer demand, and inclusive by design produces outcomes that classroom-based or volume-driven training cannot replicate.

The mechanisms that convert AI adoption into inclusive employment are therefore understood. What is missing is the institutional platform that will connect these mechanisms to national policy, to outcomes-based funding, and to the demand signals of the real economy. A national AI Skills Alliance is the structural innovation that the evidence, from both secondary research and practitioner field work, consistently identifies as the necessary next step. It must prioritise the foundational data and governance layer that existing programmes largely omit; it must create quality standards that distinguish credible AI skilling from reputational noise; and it must advocate for the funding and regulatory reforms such as B-BBEE alignment, Skills Development Levy expansion and outcomes-based contracting. This would unlock investment at the scale the challenge demands.

The policy developments of recent months reinforce rather than weaken this conclusion. The retraction of the draft national AI policy leaves a coordination gap at precisely the moment the labour-market data show the transition accelerating. A neutral Alliance, organised around the coalition model described in Section 6, can hold a shared national agenda steady while the formal policy process is reworked both now and through potentially increasing cycles of technological disruption, and hand government a ready-made evidence base, delivery engine and co-investment framework.

This paper has made the research case for such an Alliance, grounding it in labour-market data, policy analysis, workforce accelerator evidence and direct practitioner testimony. It now falls to a coalition of the willing in dialogue with government, workforce accelerators, employers, education providers and South Africa's young people themselves, to determine the Alliance's detailed form and governance. The evidence assembled here strongly suggests that doing so is one of the highest-leverage investments South Africa can make in its shared economic future and that the cost of continued inaction is measured not in abstract economic units, but in the compounding exclusion of millions of young South Africans from an AI-enabled world of work that is already reshaping the economy around them.

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An alliance is only as credible as its members.

A neutral, multi-stakeholder alliance for AI skilling in South Africa will be owned by no one and shaped by its members.



Register your interest in joining the alliance.