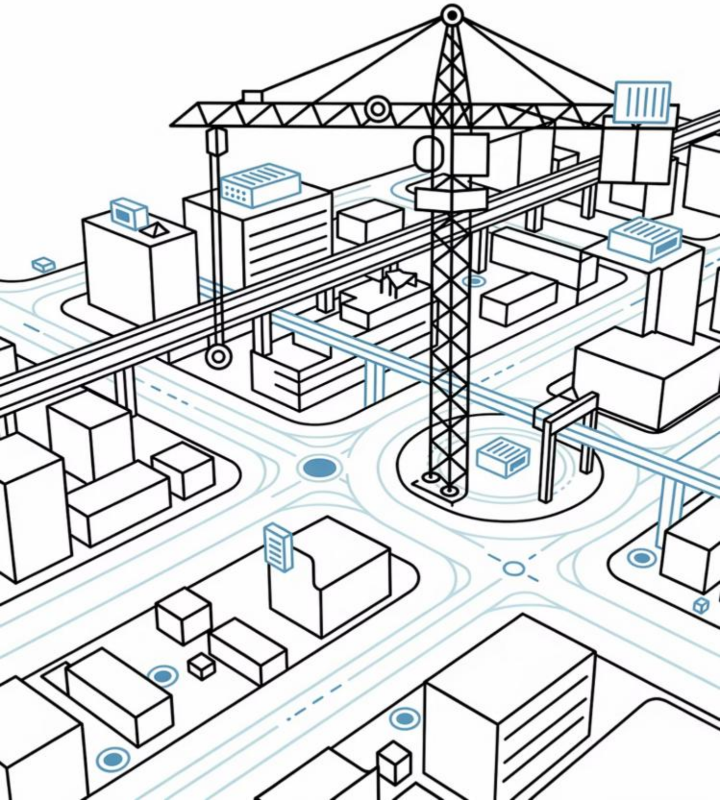


Construction and Engineering in South Africa: Labour Reform, AI and Workforce Strategy to 2030

A strategic briefing for corporate teams, HR leaders and executives navigating South Africa's most significant labour-law shake-up in three decades — and the AI transformation reshaping the sector's workforce.

SECTOR INTELLIGENCE

2025–2030

Agenda

What This Briefing Covers

Six interconnected themes that every executive in construction and engineering must understand before the reforms take effect.

01

2030!

What 2030 will look like from a labour market viewpoint

02

Top 10 AI & Skills Disruptors in C&E

Political, economic, social, technological, environmental and legal forces shaping the operating environment.

03

AI in action

Quick strategic planning and KPA setting.

04

Labour-Law Reform Impact

Nine high-impact amendments mapped directly to construction and engineering realities.

05

AI and Automation

From project delivery and safety analytics to HR/ER automation — the only realistic cost offset.

06

Workforce Strategy & Top 10 Priorities

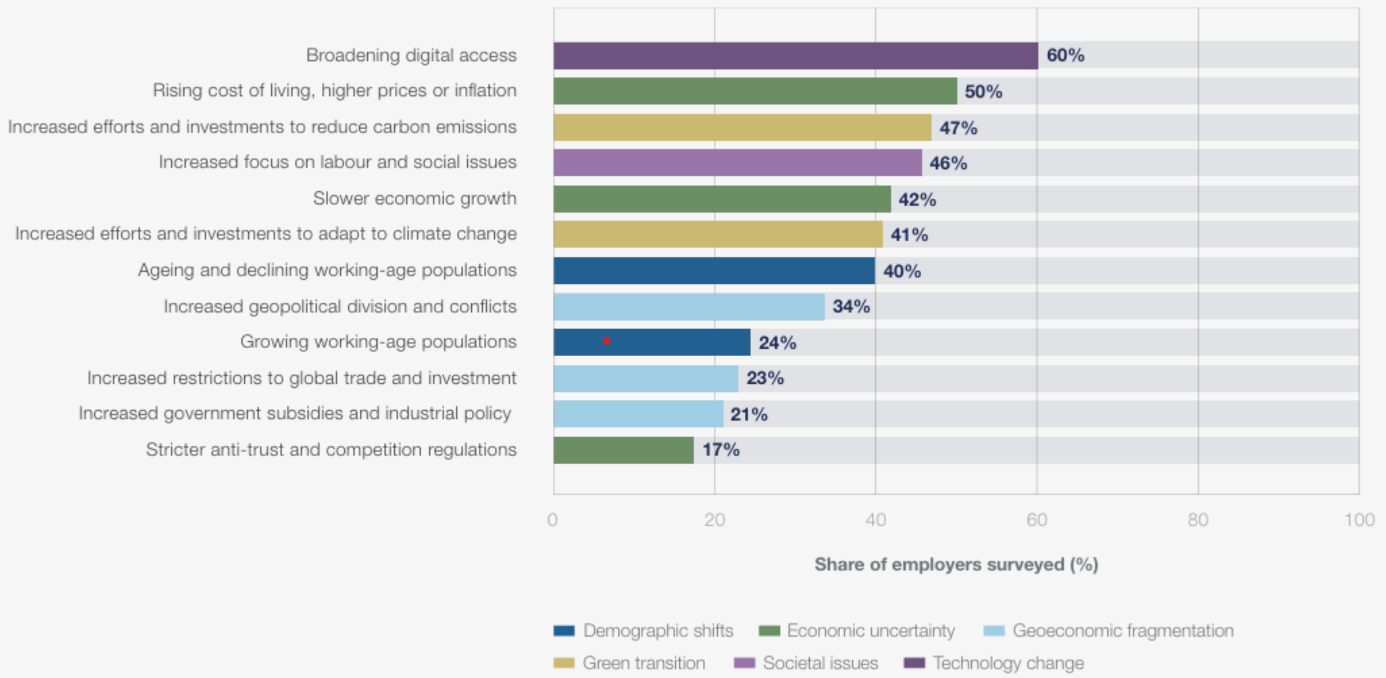
Optimal staffing models and the executive action agenda for 2025–2030.

2030!

FIGURE 1.1

Macrotrends driving business transformation

Share of employers surveyed that identify the stated trend as likely to drive business transformation.



Source

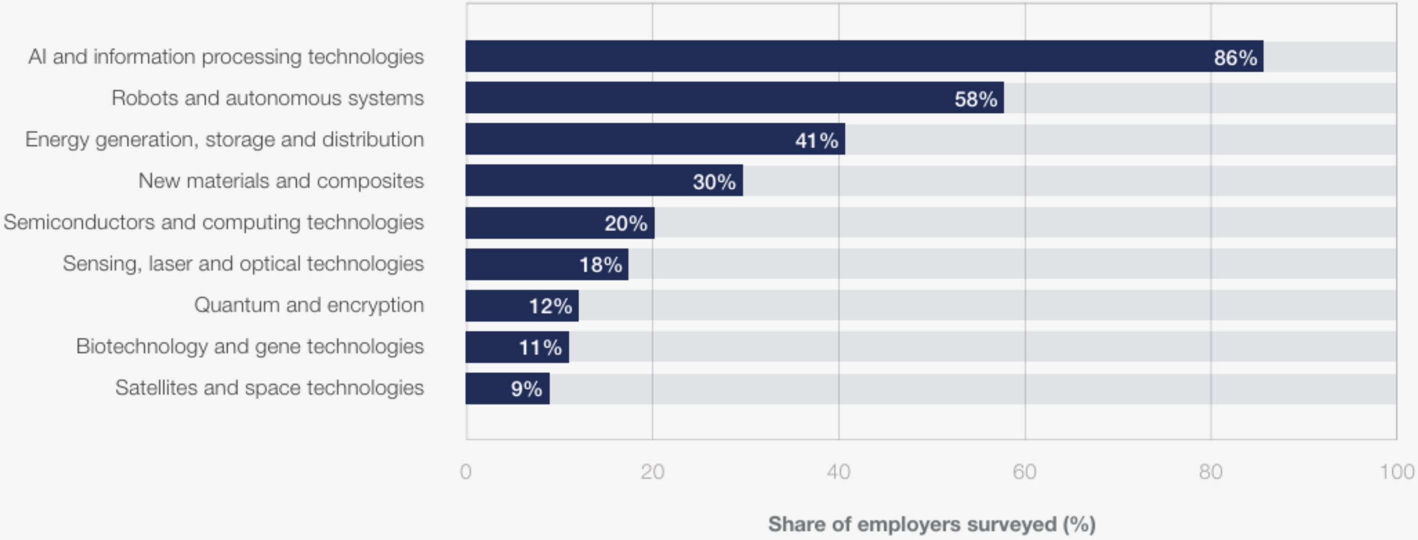
World Economic Forum, Future of Jobs Survey 2024.

2030!

FIGURE 1.2

Technology trends driving business transformation, 2025-2030

Share of employers surveyed that identify the stated technology trend as likely to drive business transformation



Source

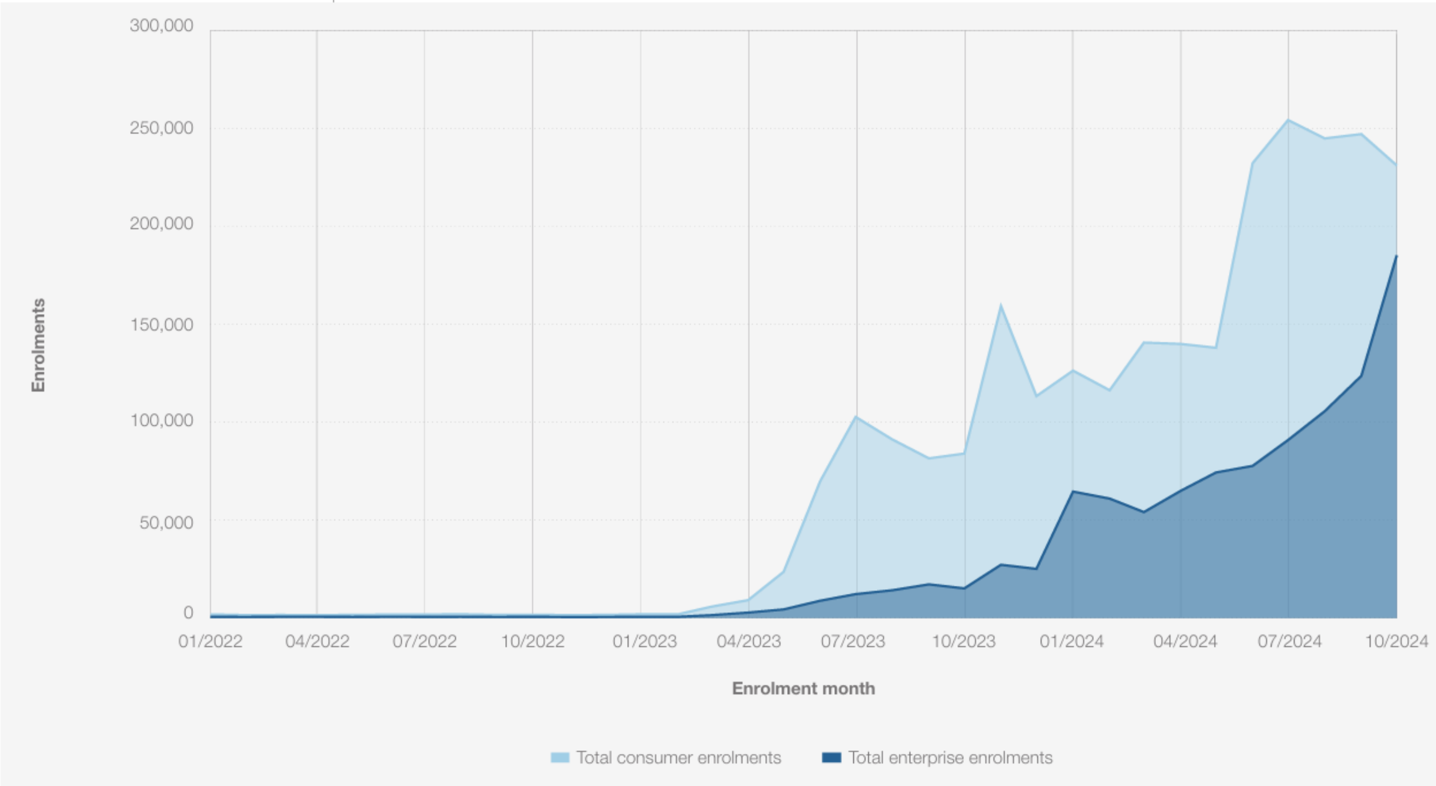
World Economic Forum, Future of Jobs Survey 2024.

2030!

FIGURE B1.1

Demand for generative AI skills

Generative AI enrolment trend 2022-2024.

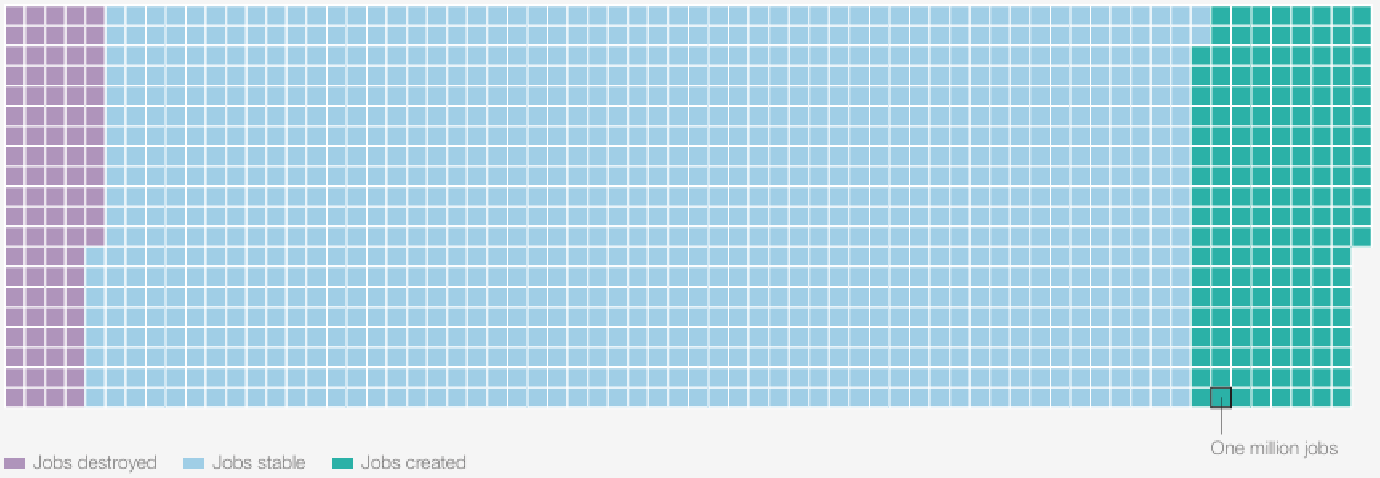


2030!

FIGURE 2.1

Global employment change by 2030

In the next five years, 170 million jobs are projected to be created and 92 million jobs to be displaced, constituting a structural labour market churn of 22% of the 1.2 billion formal jobs in the dataset being studied. This amounts to a net employment increase of 7%, or 78 million jobs.



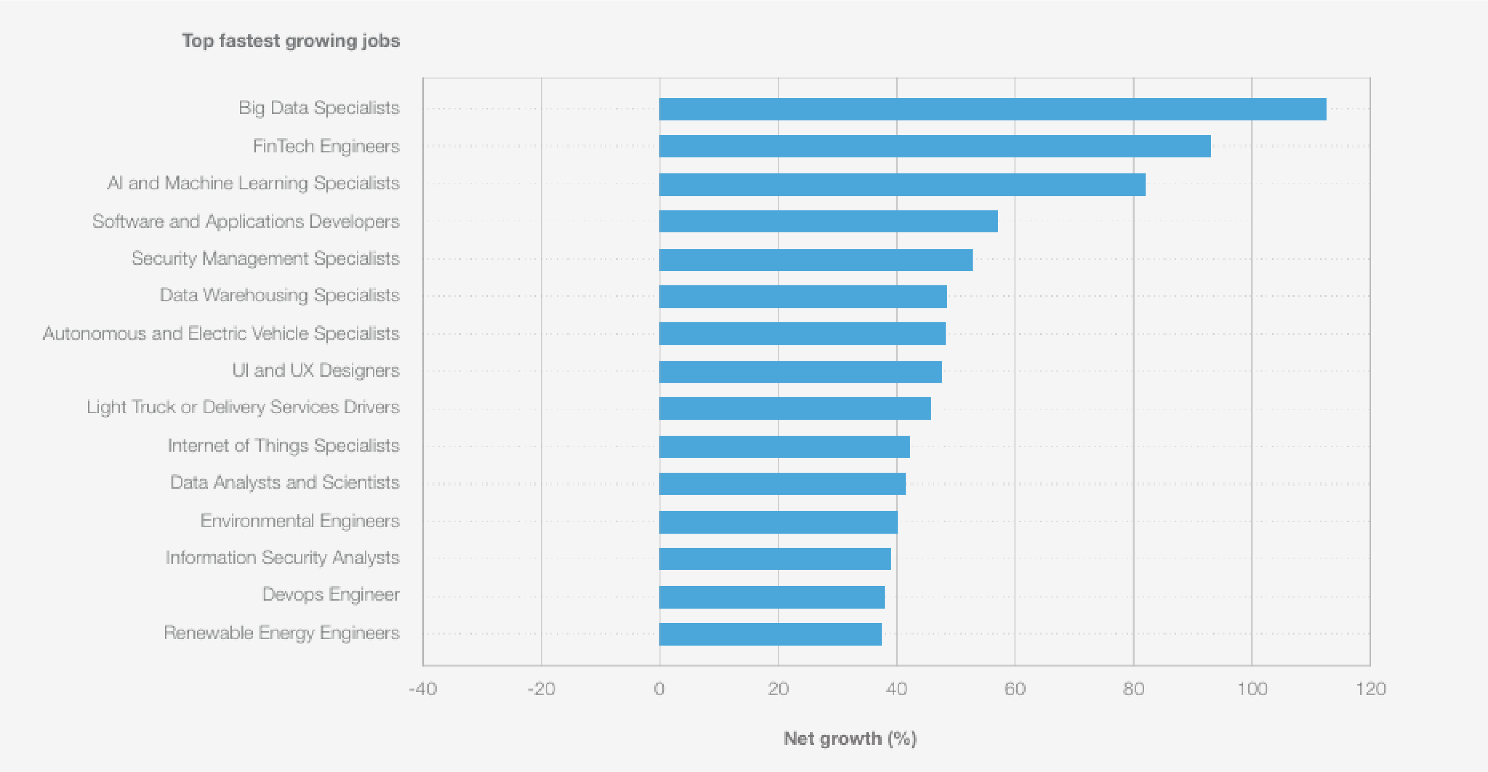
Source

World Economic Forum, Future of Jobs Survey 2024; International Labour Organization, *ILOSTAT*.

Note

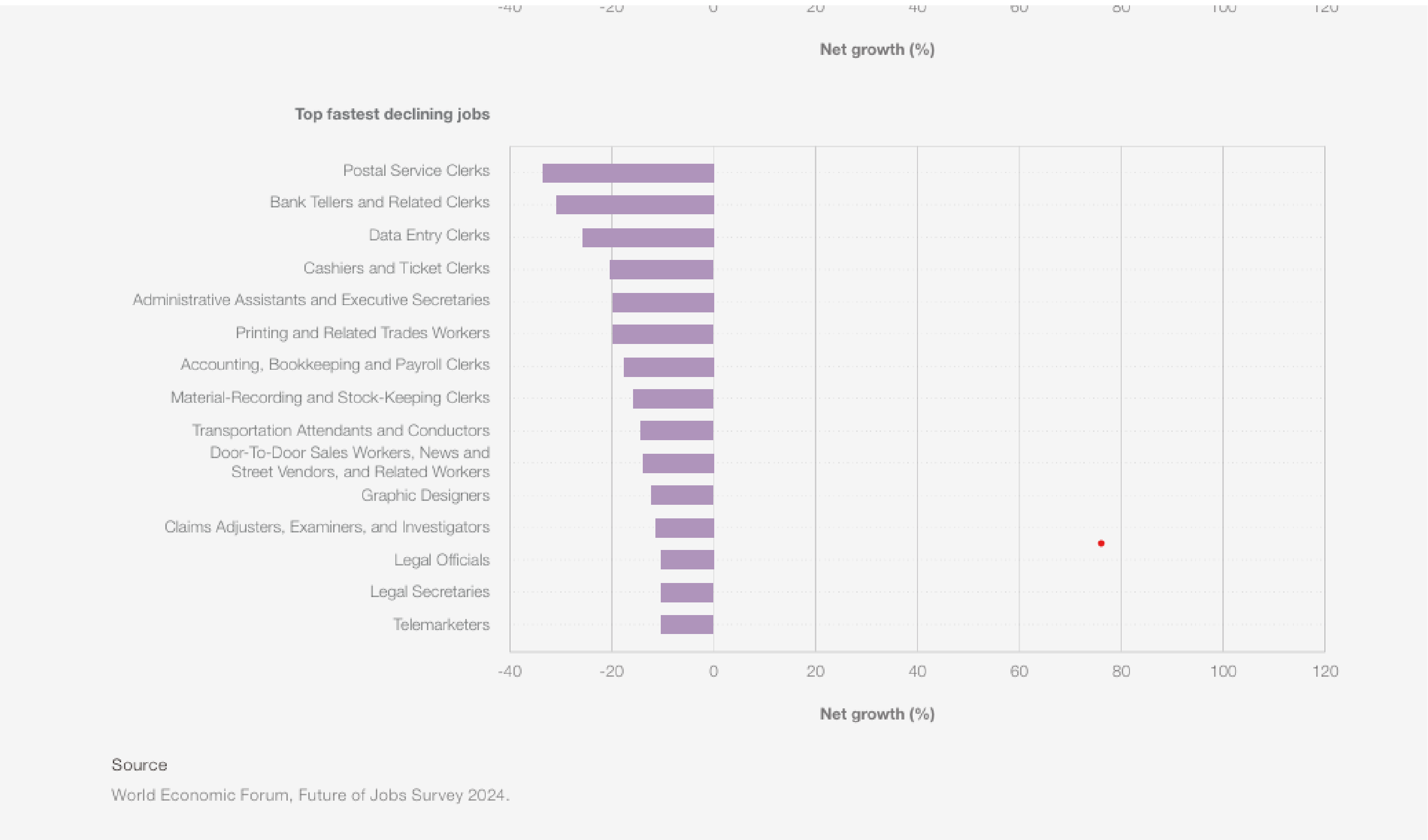
Please refer to the Appendix for the methodology.

2030!



Top fastest growing jobs
Big Data Specialists
FinTech Engineers
AI and Machine Learning Specialists
Software and Applications Developers
Security Management Specialists
Data Warehousing Specialists
Autonomous and Electric Vehicle Specialists
UI and UX Designers
Light Truck or Delivery Services Drivers
Internet of Things Specialists
Data Analysts and Scientists
Environmental Engineers
Information Security Analysts
Devops Engineer
Renewable Energy Engineers
-40
-20
0
20
40
60
80
100
120
Net growth (%)

2030!



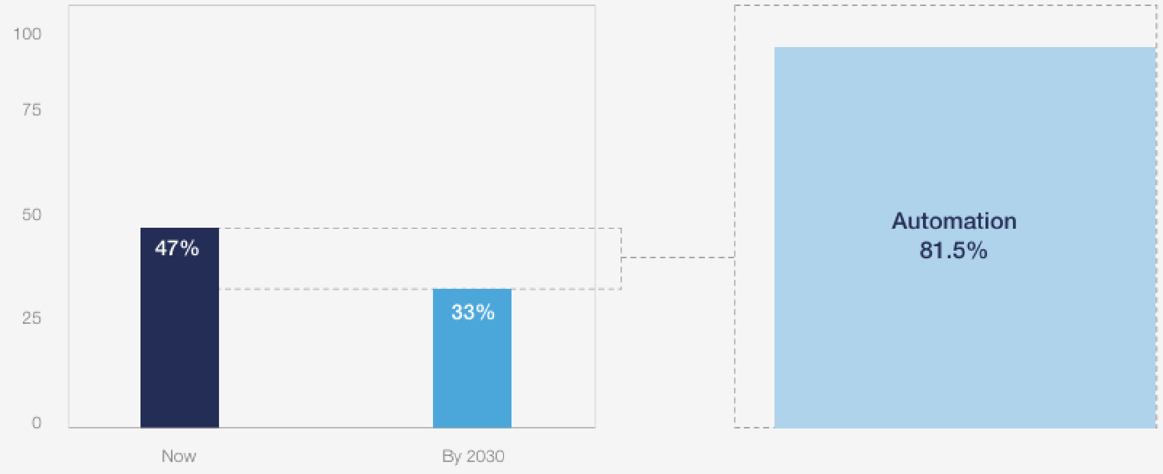
-40
-20
0
20
40
60
80
100
120
Net growth (%)
Top fastest declining jobs
Postal Service Clerks
Bank Tellers and Related Clerks
Data Entry Clerks
Cashiers and Ticket Clerks
Administrative Assistants and Executive Secretaries
Printing and Related Trades Workers
Accounting, Bookkeeping and Payroll Clerks
Material-Recording and Stock-Keeping Clerks
Transportation Attendants and Conductors
Door-To-Door Sales Workers, News and Street Vendors, and Related Workers
Graphic Designers
Claims Adjusters, Examiners, and Investigators
Legal Officials
Legal Secretaries
Telemarketers
-40
-20
0
20
40
60
80
100
120
Net growth (%)
Source
World Economic Forum, Future of Jobs Survey 2024.

2030!

FIGURE 2.8

Expected shift in the human share of work task delivery in total firm output driven by automation versus augmentation, 2025-2030, global average

Change in proportion of human-performed tasks attributable to increasing automation.



Source

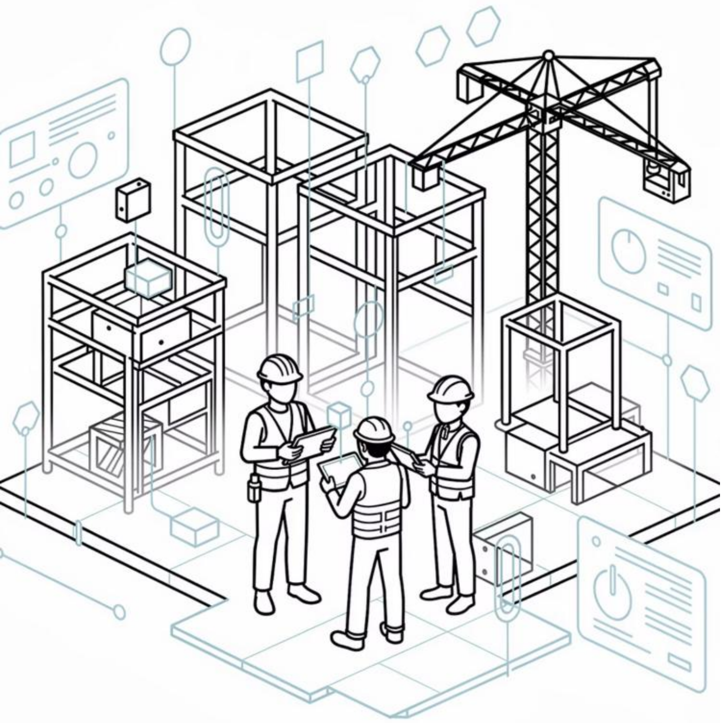
World Economic Forum, Future of Jobs Survey 2024.

2030!

FIGURE 2.9

Expected shift in the human share of work task delivery in total firm output driven by automation versus augmentation, 2025-2030, by industry

Change in proportion of human-performed tasks attributable to increasing automation.



Top 10 AI & Skills Disruption Trends for Construction & Engineering

A forward-looking briefing on the forces reshaping South Africa's construction and engineering sector — from AI adoption and robotics to reskilling imperatives and the green economy. Prepared for construction and engineering leaders, HR professionals, and policy makers navigating the path to 2030.

FUTURE STATE TO 2030

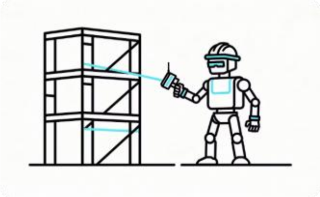
SOUTH AFRICA

The Technology Frontier: AI, Robotics & Digital Fluency

Three of the ten trends converge on a single truth: technology is no longer optional infrastructure — it is the operating system of modern construction and engineering.

Trend 1 — AI as Dominant Technology

AI and information-processing are expected to transform **86% of employers by 2030**, making AI copilots, predictive analytics and intelligent automation standard tools across design, planning and site management. South African firms must move from piloting to embedding.



Trend 2 — Robots & Autonomous Systems

Robotics are set to transform **58% of employers**, driving selective automation of hazardous and repetitive site tasks — including surveying, structural inspection, and materials handling — reducing risk and improving productivity on South African infrastructure projects.

Trend 3 — Digital & Data Fluency

AI, big data, cybersecurity and technology literacy are the **fastest-growing skill clusters**. BIM, IoT sensors and construction analytics are rapidly becoming baseline capabilities rather than competitive advantages — raising the floor for all technical roles.

BIM (building information modelling) is a way of generating and managing a digital representation of the **physical** and functional characteristics of buildings and infrastructure (roads, bridges, utilities, etc.).

The Skills Revolution: Churn, Growth & the Human Premium

The labour market is not simply shrinking or growing — it is restructuring. Understanding which roles are rising and which are declining is essential for workforce planning to 2030.

Skills Disruption at Scale

Trend 4 — Massive Skills Churn: An estimated 39% of core skills in existing roles will change or become obsolete by 2030. Engineers, technicians and site staff face urgent pressure to upskill, reskill or redeploy into emerging specialisms.

Trend 5 — Net Job Growth with High Churn: Structural labour-market change equates to 22% of all jobs — 14% newly created, 8% displaced. Engineering and frontline site roles will grow, while clerical and administrative posts face sharp decline.

Trend 6 — Automation of Clerical Work: Secretarial, data-capture and administrative roles within construction firms are among the largest declining occupations as AI tools absorb routine information-processing tasks.

The Human Skills Premium

Trend 7 identifies the capabilities that automation cannot replicate: **analytical thinking, resilience, flexibility, agility, leadership and social influence.** For professionals and managers in construction and engineering, these become the core differentiators in a technology-saturated environment.

Analytical Thinking

Problem-solving in complex, ambiguous project environments

Leadership & Influence

Managing multidisciplinary teams through change and uncertainty

Resilience & Agility

Adapting rapidly to shifting technology, regulation and market demands

Green Engineering & the Sustainability Imperative

TREND 6

Rise of Green Engineering

Climate-change mitigation and adaptation are identified as **top transformation drivers** for the construction sector globally — and South Africa is no exception. The transition to low-carbon infrastructure is accelerating demand for specialist skills in renewable energy engineering, environmental impact assessment, green building design and sustainable materials.

For South African firms, this trend aligns directly with national imperatives around energy security, climate commitments and the Just Energy Transition — creating a significant pipeline of green infrastructure opportunity for those with the right capabilities.

> Firms that invest now in green engineering capabilities will be positioned to capture the growing pipeline of renewable and low-carbon infrastructure projects across sub-Saharan Africa.

Renewable Energy

Solar, wind and storage projects driving new engineering roles

Low-Carbon Design

Green building standards and embodied carbon skills in demand

Climate Resilience

Infrastructure adaptation to flood, heat and water stress

Strategic Response: Reskilling, Well-Being & Inclusion

The final — and arguably most actionable — cluster of trends places the responsibility squarely on employers and policy makers to lead the workforce transition with urgency and equity.

59%

Workers Need Training

By 2030, the majority of the current workforce will require significant reskilling or upskilling to remain effective in their roles

85%

Employers to Prioritise Upskilling

Most construction and engineering employers plan to make workforce training a strategic priority — not a discretionary spend

50%

Internal Redeployment

Half of employers plan to actively move workers from declining roles into growing ones, rather than rely purely on external hiring

83%

Diverse Talent Pools

Of employers are prioritising expansion of diverse talent pipelines as a core talent strategy — essential for South Africa's transformation agenda

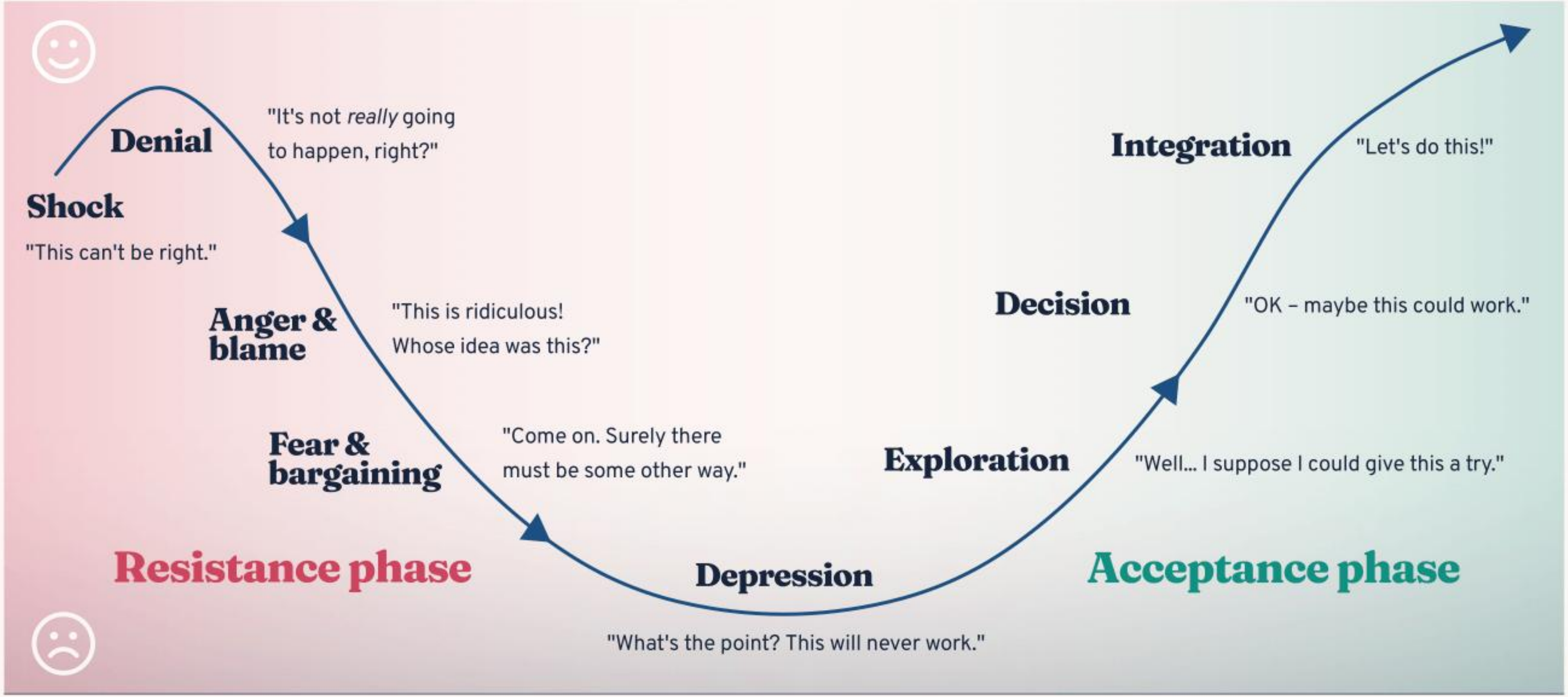
64%

Well-Being Focus

Of employers are placing employee well-being at the centre of their people strategies, recognising its link to retention and productivity

The Strategic Imperative: South African construction and engineering leaders must treat reskilling as a core business function, not an HR afterthought. Firms that build learning cultures, invest in well-being and broaden their talent pipelines will be best positioned to capture the opportunities of the 2030 economy.

The change curve



Quick strategic planning and AI in action

2025 Integrated Annual Report

Stefanutti Stocks

Strategic Drivers / SBO’s

Top 10 KPA's and KPI's for the CEO

Top 10 KPA's and KPI's for the HR Director

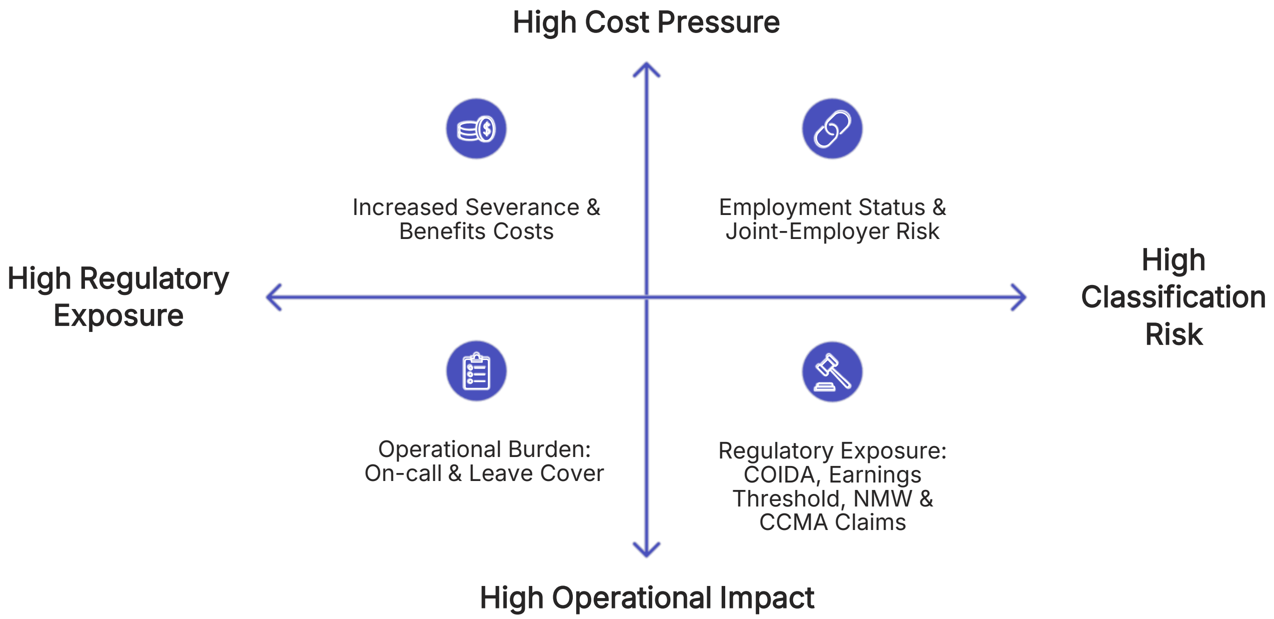
Other...

2030!

Labour-Law Reform: The Biggest Shake-Up in 30 Years

South Africa's pending amendments to the LRA, BCEA, EEA, NMWA and UIF parental-benefit framework represent a structural shift in the cost and regulation of labour — one that hits construction and engineering harder than almost any other private-sector industry, given its deep reliance on non-standard, project-based and vulnerable workers.

⚠ The net effect: labour becomes structurally more expensive and more regulated across the board, particularly for non-standard workers. This pushes firms toward more formal, compliant workforce models, robust HR/ER systems, and deliberate use of AI to offset rising people costs.



Each phase demands a different response — financial modelling, legal restructuring and operational change management — making an integrated, cross-functional approach essential.

Nine High-Impact Amendments: What They Mean on Site

1

On-Call / Zero-Hours Workers (BCEA s9B)

New rules on written particulars, reasonable notice, cancellation and pro-rated leave increase cost and reduce scheduling flexibility for casual site workers and security personnel — core to every major construction project.

2

Gender-Neutral Parental Leave

Extended and flexible parental absences will affect project-critical roles — site engineers, project managers, crane operators. Gendered policies trigger discrimination claims; deliberate change management is required in a male-dominated sector culture.

3

Severance Pay Doubled to Two Weeks Per Year

Project close-out, contract loss and financial distress retrenchments become materially more expensive overnight. Boards must re-model project close-out provisions; voluntary severance schemes may become unaffordable at current design.

4

Section 189A Retrenchment Simplification

Large-scale retrenchments will face fewer urgent interdicts and more predictable timelines, but substantive fairness plus higher severance will still drive significant cost and legal risk in the context of cyclical project endings.

5

Expanded Harassment Claims

Mixed, multi-employer sites with TES, contractors and sub-contractors are high-risk environments. Low-paid workers can now refer broader racial, gender and other harassment disputes directly to the CCMA without cost barriers.

Further Amendments: Classification, Pay and Flexibility

6. Expanded "Employee" Definition — Contractor Risk

Construction relies heavily on "independent" artisans who work exclusively on a single site with company-provided tools and direct supervision — classic reclassification risk scenarios. Misclassified contractors may claim unfair dismissal, leave, benefits, NMW and BCEA protection. TES and labour-broker models must be audited against the new tests of control and organisational integration without delay.

7. Benefit-Fund Remittance Enforcement and NMW Recalibration

Non-payment or delayed payment of pension/provident contributions can now be enforced more aggressively with interest — a real and immediate risk where cash flow is tight. Following the *Quantum Foods* principle, bonuses and deferred payments cannot be used to top up minimum wage; low base-pay plus commission structures across subcontracting chains are directly exposed.

8. High-Earner Remedy Limits and Extended Probation

Senior engineers, project directors and executives above the high-earner threshold will face compensation rather than reinstatement, with longer and operationally justifiable probation periods. This gives employers more flexibility in high-stakes technical appointments, but contracts and probation processes must still meet fairness standards.

9. Start-Up Bargaining-Council Exemption (<50 employees, two years)

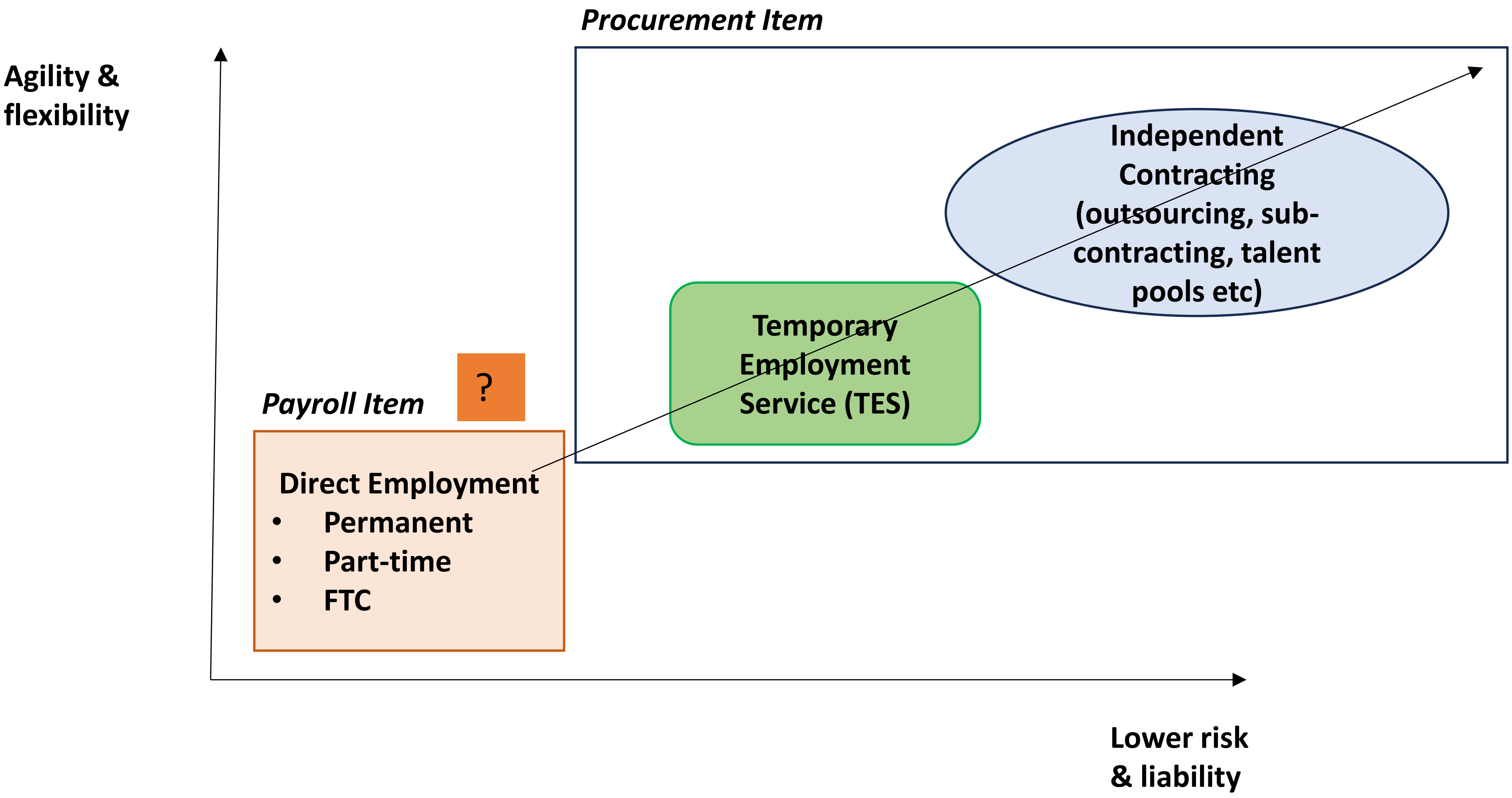
New specialist engineering or construction start-ups can operate outside extended bargaining-council conditions for two years, subject to BCEA/NMW compliance and anti-avoidance rules. This can encourage innovation and niche project entities, but cost "cliff edges" must be planned for when exemptions lapse at month 25.

Optimal Workforce Mix: A Design Framework for the Sector

No single staffing model is sufficient in construction and engineering. The reform environment demands a deliberate, legally defensible mix — with each category chosen for a specific strategic and operational rationale, not simply for cost reduction.

Model	Typical Use	Key Advantage	Reform Risk
Permanent	Engineers, QSs, project managers, safety officers, key artisans, HR/ER, finance	Skills retention, compliance clarity, safety ownership	Doubled severance at retrenchment; inflexibility at project end
Fixed-Term	Project-bound roles with clear start/end dates; site admin; some artisans	Aligns headcount with project life-cycle	Risk of deeming to indefinite if repeatedly renewed or poorly justified
Part-Time	Predictable, limited-hours roles — stores, security, admin, weekend maintenance	Cost-effective; supports parental leave flexibility	New on-call rules bite if availability is demanded without guaranteed hours
TES / Labour Broker	Peak-labour surges, specialist skills, short-term ramp-up on big sites	Flexibility; risk/admin partly carried by TES	Joint and several liability; reclassification risk; NMW and benefit enforcement
Outsourcing	Security, catering, cleaning, maintenance, logistics	Focus on core operations; predictable service costs	LRA s197 risk on retendering; NMW/benefit compliance in supply chain
Sub-Contracting	Trade contractors — plumbing, electrical, civils, formwork, steel, scaffolding	Specialist capability; risk sharing; competitive pricing	Expanded employee definition may create joint-employer liability for principal contractor
Employer of Record (EOR)	Cross-border placements; operationally managed workers not on client's books	Simplifies cross-jurisdictional compliance	Treated as TES in SA; reclassification risk where operational control sits with client

Best-fit recommendation: Anchor safety-critical and high-skill roles in permanent employment. Use fixed-term contracts only where project linkage is genuine and rigorously documented. Treat TES, outsourcing, sub-contracting and EOR as strategic supply chains subject to formal due-diligence and NMW/benefit compliance audits.


Procurement Item
Agility & flexibility
Independent Contracting (outsourcing, sub-contracting, talent pools etc)
Temporary Employment Service (TES)
?
Payroll Item
Direct Employment
• Permanent
• Part-time
• FTC
Lower risk & liability

APPROPRIATION OF LIABILITY – WORKFORCE MODELS

Applicable statute	Client employs directly
LRA (Unfair dismissal) **Below** the threshold	Company
LRA (Unfair dismissal) **Above** the threshold	Company
LRA (unfair labour practice)	Company
LRA (s197, strikes & lockouts, organisational rights)	Company
EEA (Unfair discrimination)	Company
EEA (Chapter 3 – AA)	Company
Skills Development Act, Levies Act	Company
BCEA (incl. Bargaining Councils, Sectoral Determinations, NMW)	Company
UIF Act, COID Act	Company
OHSA	Company
POPI/ Cybercrimes	Company
Income Tax Act	Company

APPROPRIATION OF LIABILITY – WORKFORCE MODELS

Applicable statute	TES Severally Liable	Client Severally Liable	"Joint liability"
LRA (Unfair dismissal) **Below** the threshold	-3 months		+3 months (co-respondent, locus standi)
LRA (Unfair dismissal) **Above** the threshold	Yes		
LRA (unfair labour practice)	-3 months		+3 months (co-respondent, locus standi)
LRA (s197, strikes & lockouts, organisational rights)	-3 months		+3 months (co-respondent, locus standi)
EEA (Unfair discrimination)			TES acts on express instruction of client
EEA (Chapter 3 – AA)	-3 months		+3 months
Skills Development Act, Levies Act	Yes		
BCEA (incl. Bargaining Councils, Sectoral Determinations, NMW)	Yes		Yes, if TES defaults
UIF Act, COID Act	Yes		
OHSA		Client	
POPI/ Cybercrimes	Yes, as responsible party & operator		Yes, as responsible party & operator
Income Tax Act	Yes		

APPROPRIATION OF LIABILITY – WORKFORCE MODELS

Applicable statute	Independent Contractor (sub-contract, outsource, FO etc)
LRA (Unfair dismissal) **Below** the threshold	Yes
LRA (Unfair dismissal) **Above** the threshold	Yes
LRA (unfair labour practice)	Yes
LRA (s197, strikes & lockouts, organisational rights)	Yes
EEA (Unfair discrimination)	Yes
EEA (Chapter 3 – AA)	Yes
Skills Development Act, Levies Act	Yes
BCEA (incl. Bargaining Councils, Sectoral Determinations, NMW)	Yes
UIF Act, COID Act	Yes
OHSA	Yes
POPI/ Cybercrimes	Yes
Income Tax Act	Yes

APPROPRIATION OF LIABILITY – WORKFORCE MODELS

Applicable statute	Client employs directly	TES Severally Liable	Client Severally Liable	"Joint liability"	Independent Contractor (sub-contract, outsource, FO etc)
LRA (Unfair dismissal) **Below** the threshold	Company	-3 months		+3 months (co-respondent, locus standi)	Yes
LRA (Unfair dismissal) **Above** the threshold	Company	Yes			Yes
LRA (unfair labour practice)	Company	-3 months		+3 months (co-respondent, locus standi)	Yes
LRA (s197, strikes & lockouts, organisational rights)	Company	-3 months		+3 months (co-respondent, locus standi)	Yes
EEA (Unfair discrimination)	Company			TES acts on express instruction of client	Yes
EEA (Chapter 3 – AA)	Company	-3 months		+3 months	Yes
Skills Development Act, Levies Act	Company	Yes			Yes
BCEA (incl. Bargaining Councils, Sectoral Determinations, NMW)	Company	Yes		Yes, if TES defaults	Yes
UIF Act, COID Act	Company	Yes			Yes
OHSA	Company		Client		Yes
POPI/ Cybercrimes	Company	Yes, as responsible party & operator		Yes, as responsible party & operator	Yes
Income Tax Act	Company	Yes			Yes

CHAPTER 7

Top 10 Priority Focus Areas for Executives

These are the actions that will determine whether your organisation absorbs the reforms as a competitive advantage or suffers them as an unplanned cost shock. Sequence matters: financial modelling and workforce mapping should precede contract rewrites, which should precede enforcement audits.

1 Labour-Law Impact Modelling for Projects and Bids

Quantify the cost of double severance, NMW compliance and benefit-fund enforcement across all project and corporate models, including TES and sub-contracting chains. This modelling must be embedded in bid pricing before new contracts are awarded.

2 Workforce Segmentation and Model Design

Map every role into permanent, fixed-term, TES, outsourced, sub-contract or EOR categories with explicit legal and commercial rationale. Undocumented categorisation is the single greatest source of reclassification liability.

3 Contract and Policy Rewrite Programme

Update all contracts, project conditions and HR policies for on-call work, parental leave, anti-harassment, probation, high-earner remedies and contractor definitions. Generic legacy documents will not survive scrutiny under the new frameworks.

4 Contractor and TES Audit for Reclassification Risk

Conduct a structured "employee vs contractor" audit using the new control and organisational integration tests. Prioritise long-tenure single-client contractors and platform-like arrangements — these are first in the line of sight for enforcement action.

5 NMW and Benefit-Fund Compliance Sweep

Validate that every worker in the chain meets the NMW on base pay alone — not topped up with bonuses or commissions — and that all deducted benefit contributions are fully remitted and up to date. Correct arrears proactively before enforcement escalates.

Top 10 Priorities: Actions 6 to 10

6 AI-Enabled HR/ER and Safety Roadmap (Actions from 2025)

Implement AI assistants for HR queries, ER case drafting, payroll compliance validations and real-time safety analytics. Follow a phased 2025–2029 roadmap: automate transactional HR first, then shift people-function capacity toward advisory, strategic and governance roles that only humans can perform.

7 Harassment, Diversity and Culture Interventions on Sites

Roll out integrated anti-harassment frameworks — beyond narrow sexual-harassment statements — with supervisor-level training, anonymous reporting channels and investigation protocols tailored to mixed-employer construction sites where multiple principal and sub employers interact daily.

8 Strategic Use of Bargaining-Council Start-Up Exemptions

For new specialist entities under 50 employees, the two-year exemption from extended bargaining-council conditions provides a genuine window to build operational capacity. Plan deliberately for the cost step-up at month 25 — this cliff edge has caught firms unprepared before.

9 Leadership and Line-Manager Capability

Upskill site managers, foremen and project leaders in the new laws, AI literacy, ER risk management and inclusive people leadership. The reforms require compliance at the point of operational decision-making, not just in the HR department — "HR owns compliance" is no longer a viable model.

10 Integrated Governance and Reporting

Establish a cross-functional steering committee — HR, Legal, Finance and Operations — to monitor reform implementation, COIDA/NMW/EEA compliance, CCMA dispute trends, AI ethics and workforce analytics. Board-level visibility of labour risk is now a governance expectation, not a management nicety.

The Strategic Imperative: Build for 2030 Now

The convergence of South Africa's most significant labour-law reforms in a generation with the rapid advance of AI and automation creates a defining strategic moment for construction and engineering firms. Those who treat the reforms as a compliance exercise alone will absorb the cost without capturing the opportunity.

Act Now on Classification Risk

The expanded "employee" definition and NMW enforcement are not future concerns — they are live exposure requiring immediate audit of every non-standard worker relationship in your chain.

Price the New Reality into Bids

Double severance, benefit-fund enforcement and on-call compliance are structural cost increases. Bids and project models that ignore them will erode margins and create contingent liabilities.

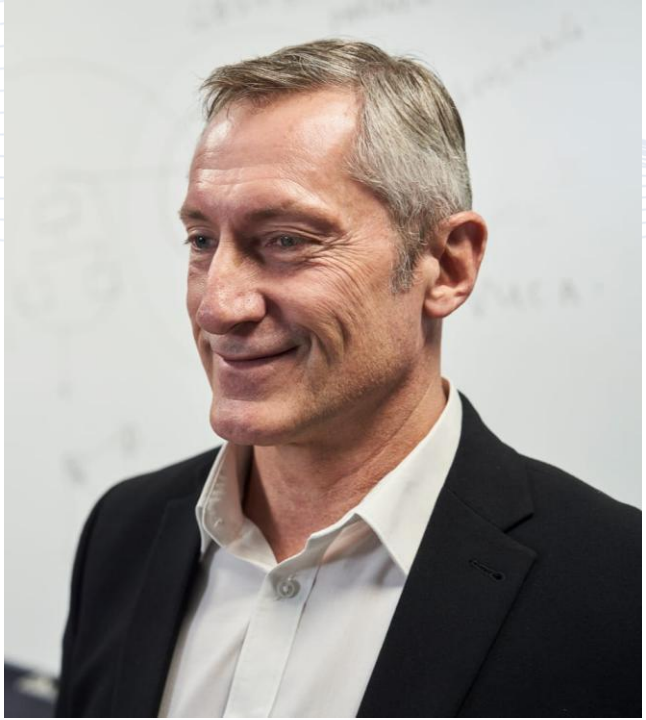
Deploy AI as the Cost Offset

AI in HR/ER, safety analytics and project delivery is the only lever that can absorb rising people costs without passing them entirely to clients. Investment in the roadmap starts today.

Build Cross-Functional Governance

Sustainable compliance in a complex, multi-employer, project-based sector requires joined-up oversight across HR, Legal, Finance and Operations — with board-level accountability.

Firms that integrate compliant workforce design, AI-enabled HR/ER systems and strong leadership capability will be better positioned to win public and private infrastructure mandates, attract scarce technical talent and manage project risk in the decade ahead.



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