From Automation to Augmentation: Building South Africa's AI-Enabled Economy

South Africa needs two things that pull against each other. It needs to become more productive, and it needs to employ more people. In the third quarter of 2026 the official unemployment rate was 33.7%, or 8.6 million people, and 44.0% on the expanded measure (Stats SA, 2026). Over the same period that joblessness became entrenched and productivity stalled. Aggregate labour productivity growth was negative on average in the decade to 2019 (ERSA, 2026), and growth accounting shows productivity growth collapsing after 2008 (Havemann, 2025).

Artificial intelligence can ease the first problem and improve the second. Which of these happens is decided less by the technology than by the incentives firms face when they adopt it, and that the Budget is the instrument best placed to change those incentives. I propose one costed fiscal measure, an Augmentation Allowance, supported by changes to skills funding and industrial policy.

I should declare an interest. I am a finance executive at Microsoft, a company that sells AI products. The proposal below is deliberately designed so that it does not subsidise the purchase of those products, from my employer or anyone else.

1. What the evidence says

The economics literature does not support either the optimistic or the pessimistic story on its own. Acemoglu and Restrepo (2019) show that technology displaces labour from existing tasks but can also create new tasks in which people have a comparative advantage; employment depends on the balance between the two. Brynjolfsson (2022) warns of a "Turing Trap": when firms and governments favour technology that imitates human work over technology that extends it, workers lose bargaining power and the gains concentrate.

The firm-level evidence shows what augmentation looks like. In a study of customer-support agents given a generative AI assistant, productivity rose by about 15% on average, with the largest gains among the least experienced workers (Brynjolfsson, Li and Raymond, 2025). That finding matters here. South Africa's global business services sector employs more than 270 000 people, and roughly nine in ten of its hires are young (BPESA figures). Research by Caribou and Genesis Analytics for the Mastercard Foundation estimates that up to 40% of tasks in Africa's outsourcing sector could be automated by 2030. The same tool can make a first-time worker productive sooner, or remove the job she would have been hired into.

The aggregate gains are also uncertain. Acemoglu (2025) estimates that the economy-wide productivity effect of AI over the next decade may be modest. Treasury should therefore not bank on a growth windfall to pay for an incentive. Any measure must be small, capped and evaluated.

2. Why firms default to substitution

In my experience an AI investment is approved the way any investment is approved: on a business case. Two kinds of benefit appear in it. Cost savings, meaning fewer hours and fewer roles, are certain, near-term and visible in next year's budget. Growth benefits, such as better decisions, new products and redeployed staff, are uncertain and slow, and finance teams rightly discount them. The result is a structural bias. Even managers who would prefer to augment their people find that headcount reduction is the number that gets the project approved.

Three further features of AI spending shape the policy design. First, it is mostly operating expenditure, in the form of subscriptions and cloud consumption, so depreciation-based investment allowances barely touch it. Second, most of that spending is paid in foreign currency to offshore providers, so a general subsidy for AI spending would leak out of the economy. Third, buying licences is not the same as becoming more productive. The gains come from training people and redesigning work, and this is exactly where firms under-invest, because a trained employee can leave and take the skill to a competitor.

These points identify the market failure. The private return to substitution is certain and fully captured by the firm. The private return to augmentation is uncertain and partly captured by others. In an economy where a third of the labour force is unemployed, the social cost of that bias is unusually high.

3. The proposal: an Augmentation Allowance

I propose a time-bound tax allowance modelled on the section 11D research and development incentive, which already permits a 150% deduction for approved R&D spending until the end of 2033 (SARS, 2026). Its design is as follows.

- **Rate.** An additional 50% deduction, so 150% in total, on qualifying expenditure.
- **Qualifying expenditure.** Accredited training of existing employees for AI-enabled work, and locally delivered implementation and work-redesign services. Software licences and cloud fees are excluded, because firms would pay them anyway and most of that money leaves the country.
- **Employment condition.** The firm's South African headcount, measured from the monthly PAYE returns SARS already receives, must not fall in the two years after the claim. If it does, the additional deduction is recaptured.
- **Cap.** Qualifying expenditure is capped at R5 million per firm per year. At the 27% corporate tax rate the maximum benefit is R675 000, which weights the incentive towards small and medium-sized firms and limits the windfall to large firms that would adopt regardless.
- **Sunset.** Five years, with an evaluation using tax administrative data before any renewal.

The cost is easy to bound. Every R1 billion of qualifying expenditure costs R135 million in revenue forgone (R1 billion × 50% × 27%). If 10 000 firms claimed an average of R1 million

each, the cost would be R1.35 billion a year. These uptake figures are assumptions for illustration, not forecasts, but the cap means the worst case can always be calculated as the number of claimants multiplied by R675 000. For scale, the Employment Tax Incentive cost R4.8 billion in 2022/23 (National Treasury, 2025) and the skills development levy raises about R26 billion a year (National Treasury, 2026).

The allowance should not be funded by new borrowing. The 2026 Budget signalled a review of the skills development framework, including the levy, after acknowledging that outcomes have fallen short. An illustrative cost of R1.35 billion is roughly 5% of annual levy collections. Reprioritising that share towards training that employers choose, co-fund and are held accountable for is a better use of the money than the status quo.

The design draws on the lessons of the Employment Tax Incentive. The evidence that the ETI raised youth employment is weak (Donaldson, 2024), and SARS has had to pursue abuse of it. That is why the allowance uses a simple headcount test on data SARS already holds, a hard cap, a sunset clause and an evaluation that is built in from the start.

4. Skills and industrial policy in support

The allowance protects and upgrades people who already have jobs. It does nothing directly for the 3.7 million young people aged 15 to 24 who are not in employment, education or training (Stats SA, 2026). Two supporting measures address this. First, Treasury should test, within the ETI's existing budget, a higher-value claim for young people hired into structured AI-enabled entry-level roles, starting with global business services, where the evidence on novice workers is strongest. Second, AI literacy should enter the school and post-school curriculum as a general skill, not as a branch of computer science. A future nurse, bookkeeper or teacher needs to know how to use these tools, check their output and apply professional judgement. Curriculum change is slow, however, which is why the workplace is the faster lever.

Industrial policy should focus on applying AI where South Africa already has capability, including business services, financial services, agriculture and logistics, and not on building an isolated AI sector. Sector bodies and universities can run adoption programmes for smaller firms that lack the scale to do it alone. This work need not wait for a national framework. The Draft National AI Policy gazetted in April 2026 was withdrawn for rework (DCDT, 2026; SAnews, 2026), and fiscal measures that operate through existing tax law can proceed in the meantime.

5. Trade-offs and limits

This proposal has costs, and they should be stated. The employment condition will discourage some efficient restructuring. That effect is limited by the fact that the allowance is voluntary: a firm that needs to reduce headcount simply does not claim. Some claimants would have trained their staff anyway, which is a deadweight loss that the cap contains but does not remove. The measure favours insiders over the unemployed, which is why it must be paired with entry-level hiring support. Some displacement will happen regardless, and affected workers will need retraining and placement support. Finally, no AI incentive can

substitute for the reforms to energy, logistics and investment on which growth and employment mainly depend.

6. Measuring success

Success should be measured in economic outcomes, not in adoption. The evaluation should compare claiming and non-claiming firms on output per worker, headcount, training expenditure, youth hiring and the fiscal cost per job retained or created. The results should be published in the Budget Review's tax expenditure statement. If the allowance does not show a measurable effect within five years, it should lapse.

Conclusion

Left to the ordinary logic of the business case, AI adoption in South Africa will lean towards doing the same work with fewer people. That outcome is rational for each firm and costly for a country with 8.6 million people unemployed. The answer is neither to resist automation nor to subsidise it indiscriminately. It is to change the arithmetic at the margin, so that investing in people alongside the technology becomes the better business case.

South Africa's AI ambition should not be to build an economy that needs fewer people. It should be to build an economy in which more people can contribute more productively.

References

Acemoglu, D. (2025). The simple macroeconomics of AI. Economic Policy, 40(121).

Acemoglu, D. and Restrepo, P. (2019). Automation and new tasks: How technology displaces and reinstates labor. Journal of Economic Perspectives, 33(2), 3–30.

Brynjolfsson, E. (2022). The Turing Trap: The promise and peril of human-like artificial intelligence. Daedalus, 151(2), 272–287.

Brynjolfsson, E., Li, D. and Raymond, L. (2025). Generative AI at work. Quarterly Journal of Economics, 140(2).

Caribou and Genesis Analytics, with the Mastercard Foundation. Research on the impact of AI on Africa's technology outsourcing sector.

Department of Communications and Digital Technologies (DCDT) (2026). Draft South Africa National Artificial Intelligence Policy. Government Gazette No. 54477, 10 April 2026.

Donaldson, A. R. (2024). The Employment Tax Incentive – a reform proposal. SALDRU Working Paper No. 310. Cape Town: University of Cape Town.

Economic Research Southern Africa (ERSA) (2026). The structural change emergency in South Africa. Policy Paper 46.

Havemann, R. (2025). Accounting for South Africa's remarkable growth deterioration. Research note. Stellenbosch: Bureau for Economic Research.

National Treasury (2025). Budget Review 2025, Annexure B: Tax expenditure statement. Pretoria.

National Treasury (2026). Budget Review 2026. Pretoria.

SAnews (2026). Cabinet approves withdrawal of AI policy. 5 June 2026.

South African Revenue Service (SARS) (2026). Research and Development Incentive. www.sars.gov.za.

Statistics South Africa (Stats SA) (2026). Quarterly Labour Force Survey, Quarter 3: 2026. Statistical release P0211. Pretoria.