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Science, Technology and Innovation Policy as a Lever for Uganda's Tenfold Growth Strategy.

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EXECUTIVE SUMMARY

Uganda's Fourth National Development Plan (NDP IV, FY2025/26–FY2029/30) and the Ten-Fold Growth Strategy set out to scale the economy from an estimated USD 50 billion (FY2023/24) to USD 500 billion by 2040 — requiring 16 percent annual real growth, exports rising from 13 to 50 percent of GDP, savings rising from 21 to 40 percent of GDP, and FDI scaling toward USD 50 billion a year (National Planning Authority [NPA], 2024, 2025).

Both frameworks treat Science, Technology and Innovation (STI) as the cross-cutting enabler of this leap, targeting an STI-sector GDP contribution of USD 136 billion by 2040 (Uganda Bankers Association [UBA], 2025). Yet Uganda starts from a weak base: R&D spending has oscillated in a roughly 0.14–0.44 percent-of-GDP band for two decades, reaching just 0.44 percent in 2023 — its best year on record and still a fraction of what comparators like South Korea (4.94 percent) spend (World Bank, 2026). The country also ranks 121st of 133 economies on the Global Innovation Index, and STI-attributable private-sector credit is only about UGX 2.8 trillion against a 2040 target of UGX 23.8 trillion (WIPO, 2024; UBA, 2025). Drawing on the banking industry's ATMS strategy response, the World Bank's Uganda Economic Update and World Development Indicators, official GDP statistics, a companion NDP IV brief, and international experience, this paper finds that closing the gap requires not just faster credit growth but a fused financing-and-fiscal architecture — guarantees, blended finance, capital-markets instruments, R&D tax incentives and stronger academia-industry linkages — of the kind used by Singapore, South Korea, Vietnam, India, Rwanda, Kenya and Indonesia. It closes with a consolidated ten-point action plan for scaling STI investment in line with NDP IV and the Tenfold Growth Strategy.

1. INTRODUCTION

Science, Technology and Innovation is increasingly treated globally as a foundation of inclusive transformation rather than a peripheral “tech” concern. The African Union's Agenda 2063 and the Science, Technology and Innovation Strategy for Africa (STISA-2024) both place STI at the centre of continental structural transformation (African Union [AU], 2015; Hamdy et al., 2024). Singapore, South Korea, and India have each used deliberate STI policy — patient public financing, guarantee architecture and strong university-industry linkages — to compress industrialization timelines that took earlier developers a century.

Uganda has adopted this logic formally. NDP IV designates STI a cross-cutting enabler, while the Tenfold Growth Strategy's “ATMS” pillars (Agro-Industrialisation, Tourism, Minerals Development and STI) cast STI as the productivity multiplier across the other three (UBA, 2025; NPA, 2024). The UBA's banking-industry response translates this into a concrete financing target: STI-related private-sector credit (PSC) must rise from roughly UGX 2.81 trillion in 2024 to UGX 23.8 trillion by 2040 (UBA, 2025). This paper examines Uganda's current STI state of play, distils transferable international lessons, and sets out what is needed — financially, fiscally and institutionally — to scale STI investment credibly.

2.0 UGANDA'S DEVELOPMENT AMBITION: NDP IV AND THE TENFOLD GROWTH STRATEGY

NDP IV succeeds a Third Plan whose mid-term review found Uganda off-track on innovation targets, including its science-to-humanities graduate ratio (2:5 achieved against a 3:5 target) (World Bank, 2023). The Tenfold Growth Strategy organises the country's ambition around four pillars — Agro-Industrialisation, Tourism, Minerals Development and STI — with STI as the cross-

cutting productivity engine, targeting a USD 136 billion STI contribution to GDP by 2040 and an R&D-intensity target of at least 1 percent of GDP, in line with the African Union's Khartoum Decision benchmark (UBA, 2025; NPA, 2025). The UBA's own PSC target for the STI pillar is UGX 23.8 trillion (about USD 6.5 billion) by 2040 (UBA, 2025).

3.0 THE STATE OF PLAY: STI IN UGANDA TODAY

3.1 Contribution to the Economy and the ICT Growth Trend

Uganda's STI sector — spanning ICT, fintech, e-mobility and biotechnology — is growing but remains a modest share of GDP. Because ICT and artificial intelligence increasingly function as horizontal enablers rather than a stand-alone sub-sector, their reach already extends well beyond these headline categories — into engineering, energy, agriculture and manufacturing; into health and education service delivery; into fraud and cyber-risk prevention within financial services; and into logistics — so STI's true economic footprint is understated by sector-specific statistics alone. The technology sector alone is estimated to contribute over 2.5 percent of GDP with roughly 8 percent annual growth and over 50,000 direct and indirect STI start-up jobs (UBA, 2025). Mobile money enabled by STI runs through 37.3 million accounts (UGX 61.8 trillion in annual transactions), and 212 fintechs were registered with FITSPA in 2024, though FinScope 2023

shows 66 percent of Ugandans use mobile money against only 13 percent using commercial banks (UBA, 2025).

Official national accounts allow a longer view. Uganda Bureau of Statistics data for the Information and Communication activity (ISIC division J) show real value added rising from UGX 2,129.9 billion in FY2016/17 to UGX 4,181.6 billion in FY2025/26, but growth has been uneven: a contraction of 6.8 percent in FY2018/19 was followed by a rebound to 19.6 percent in FY2019/20, before settling into a steadier 6–7 percent band over the last three fiscal years. The sector's share of current-price GDP has held in a narrow 1.5–2.2 percent range throughout the decade, reaching 2.02 percent in FY2025/26 — still far short of the contribution implied by the Tenfold Growth Strategy's ambitions for STI (Uganda Bureau of Statistics [UBOS], 2026).

Table B. Information and Communication sector, FY2016/17–FY2025/26

Fiscal Year	Real value added (UGX bn, 2016/17 prices)	Real growth (%)	Share of GDP, current prices (%)
2016/17	2,129.9	—	1.96
2018/19	2,190.9	-6.8	1.82
2019/20	2,621.4	19.6	1.83
2021/22	3,145.6	7.4	1.69
2022/23	3,469.7	10.3	1.54
2023/24	3,673.7	5.9	2.17
2024/25	3,921.2	6.7	1.97
2025/26	4,181.6	6.6	2.02

Source: UBOS (2026), Annual GDP Publication Tables, June 2026 Release, Tables 2.1–2.2 and 3.1–3.2. Figures use UBOS's national-accounts definition (ISIC J), which is narrower than the broader "ICT sector" concept used by NITA-U (2023) elsewhere in this paper; the two should not be read as directly comparable.

The pattern — deceleration from double-digit to high-single-digit real growth, and a GDP share that has essentially stagnated for a decade — reinforces the case made in Section 4: without a step-change in financing efficiency, ICT and the broader STI sector will continue to grow steadily rather than transformatively.

Two other flagships illustrate the potential. E-mobility — anchored by Kiira Motors — produced 27 electric buses and 2,795 electric motorcycles between 2023 and 2024 (up 139 percent), with USD 160 million invested since 2018 and USD 800 million more committed over five years; government targets 500,000 EVs by 2030 and a 12.5 percent GDP contribution from mobility by 2040 (UBA, 2025). The “pathogen economy” bioscience initiative, anchored around a planned 150-acre biosciences park in Nakasongola, is projected to reach USD 48.3 billion in GDP contribution by 2040 (UBA, 2025).

3.2 Structural Weaknesses

World Bank data confirm a thin and, notably, an erratic picture rather than a steadily improving one. Uganda's R&D expenditure was recorded at

0.44 percent of GDP in 2023 — its highest level in over two decades of data — but the series is patchy (no data reported for 2011–2013 or 2015–2022) and has moved without clear direction: 0.37 percent in 2002, a low of 0.14 percent in 2014, and 0.36 percent in 2010, before the 2023 uptick (World Bank, 2026). This is a materially different pattern from Uganda's comparators: over the same 2001–2023 window, South Korea's R&D intensity rose steadily and almost without interruption from 2.20 to 4.94 percent of GDP — roughly doubling through sustained, multi-decade policy commitment rather than a single good year (World Bank, 2026). Uganda ranks 121st of 133 economies on the 2024 Global Innovation Index, behind Kenya (101st) and Rwanda (108th) (WIPO, 2024; NPA, 2025). Public STI financing is thin: the FY2025/26 budget allocated only UGX 835.98 billion to STI, ICT and creative industries combined, of which just UGX 388.23 billion was for STI proper (Kasaija, 2025). Because the Bank of Uganda does not track STI credit separately, the UBA attributes 11 percent of aggregate PSC to STI as a proxy — UGX 2.81 trillion in 2024 — against a backdrop where net credit to government has risen so sharply since 2018 that it now nearly matches private-sector credit, crowding out the long-tenor lending STI needs (UBA, 2025).

Table A. R&D expenditure as a share of GDP, 2001 vs. most recent available year

Country	2001 (%)	Most recent (%)	Year
South Korea	2.20	4.94	2023
Japan	2.92	3.44	2023
Euro area	1.79	2.29	2023
Kenya	n/a	0.81	2023
South Africa	0.64	0.61	2022
Uganda	n/a	0.44	2023

Source: World Bank (2026), World Development Indicators, series GB.XPD.RSDV.GD.ZS, data extract accessed July 2026. “n/a” denotes no data reported for 2001; Kenya's and Uganda's series both have substantial reporting gaps, itself a symptom of the STI data-monitoring weakness addressed in Section 6.

Three further bottlenecks stand out: a “valley of death” between academic prototypes (e.g., at Makerere University) and commercial deployment; a weak IP ecosystem with limited university technology-transfer capacity, low patent filing and minimal licensing revenue; and a near-absence of domestic venture capital and angel-investor networks willing to underwrite early-stage, high-risk STI ventures (NPA, 2025). Cybercrime compounds this: customer fraud and cybercrime were 2024’s two most common economic crimes (40 percent and 37 percent incident rates), with losses exceeding USD 272 million, against a National Cybersecurity Strategy (2022–2026) nearing expiry (PwC, 2024, as cited in UBA, 2025). STEM enrolment also lags NDP III’s own 3:5 science-to-humanities target, and Uganda’s Human Capital Index rank (154th of 174) reflects a broader skills and health deficit (World Bank, 2023).

3.3 Summary SWOT

Strengths: growing ICT adoption and a supportive policy architecture (Vision 2040, NDP III/IV, ATMS).	Weaknesses: the low R&D ratio, poor GII rank, and thin STI-specific credit products.
Opportunities: leveraging ATMS’s other pillars and emerging technologies (AI, blockchain). AI in particular can leapfrog thin infrastructure directly — powering credit scoring for the unbanked, precision-agriculture advisory for smallholders, and diagnostic support in understaffed health facilities.	Threats: cyber risk, macroeconomic volatility and donor dependency (UBA, 2025). Fraud and cybercrime are already Uganda’s leading economic-crime threats and are rising fast alongside financial-sector digitisation (BOU, 2026; PwC, 2024).

4.0 STI AS THE FINANCING LEVER: WHAT THE NUMBERS IMPLY

The Tenfold Growth Strategy treats STI as a productivity multiplier embedded across the other pillars, not a sector financed in isolation. From UGX 2.81 trillion in 2024, continuing PSC's historical 9.4 percent annual growth would deliver only UGX 11.81 trillion by 2040 — half the UGX 23.8 trillion target; reaching the target requires a 14.3 percent CAGR (UBA, 2025).

Table 1. Projected STI-attributable PSC under alternative growth paths (UGX trillions)

Year	Historical trend (9.4% CAGR)	Required trajectory (14.3% CAGR)
2024	2.81	2.81
2028	4.02	4.79
2032	5.76	8.17
2036	8.24	13.95
2040	11.81	23.80

Source: UBA (2025), authors' own construct using Bank of Uganda data.

Volume alone will not suffice. An elasticity analysis of STI-GDP responsiveness to credit shows low efficiency (elasticity 0.2) requiring an implausible UGX 60.8 trillion and 19.4 percent CAGR, whereas moderate efficiency (0.3) — achievable through performance-linked credit and blended finance — needs only UGX 22.4 trillion at roughly 13.5 percent CAGR (UBA, 2025).

Table 2. Sensitivity of the 2040 STI-GDP target to credit efficiency

Scenario	Elasticity	Required CAGR	2040 credit (UGX Tn)	Policy implication
Low productivity	0.2	19.4%	60.8	Unrealistic without massive public-private funds
Moderate productivity	0.3	13.5%	22.4	Feasible with efficiency reforms & blended finance
High productivity	0.5	9.0%	14.3	Achievable with a strong innovation ecosystem

Source: UBA (2025).

The implication: Uganda cannot grow into the STI target on credit volume alone while government borrowing crowds bank balance sheets. The lever that matters most is how efficiently capital converts into productive innovation — the focus of Sections 5 and 6.

5.0 LESSONS FROM ELSEWHERE: HOW OTHER COUNTRIES SCALED STI INVESTMENT

5.1 Kenya and Rwanda

Kenya channels formal credit toward STI at scale — KCB Bank alone disbursed KES 53.2 billion in green loans in 2024 — paired with the World Bank-backed Kenya Industry and Entrepreneurship Project and national incubators that make firms bankable before they seek credit (UBA, 2025; World Bank, 2023). Rwanda offers the clearest lesson in punching above its income weight on STI despite a similarly thin fiscal base. The Rwanda Development Bank (BRD) blends concessional DFI credit lines with sustainability-linked bonds to lower the cost of long-tenor STI and green finance, while a single coordinating institution — rather than a fragmented landscape of agencies — keeps origination, guarantees and incubation support under one roof (Rwanda Development Board [RDB], 2024). This is paired with a deliberately narrow regulatory perimeter: the National Bank of Rwanda's fintech regulatory sandbox lets innovators test products under supervised conditions before full licensing, lowering the compliance cost of experimentation (National Bank of Rwanda [BNR], 2023). The result shows up in the rankings: Rwanda sits at 108th on the 2024 Global Innovation Index against Uganda's 121st, despite broadly comparable per-capita income (WIPO, 2024). The transferable lesson for Uganda is institutional consolidation and blended concessional finance — not simply more credit.

5.2 India

India expanded credit-guarantee architecture (a Credit Guarantee Scheme for Start-ups, a Mutual Credit Guarantee Scheme) to make lending viable

for tech and manufacturing innovators, backed by public R&D co-financing (UBA, 2025). The Reserve Bank's Innovation Hub (RBIH, 2022) used India's digital public infrastructure — Aadhaar, UPI, account aggregators, e-KYC — to cut lenders' costs by an estimated 70 percent and compress loan processing from weeks to hours. This maps directly onto Uganda's unfinished National Switch and eKYC agenda.

5.3 Singapore and South Korea

Singapore's Economic Development Board combines public R&D funding with co-investment (e.g., its Corporate Venture Launchpad), while its Agency for Science, Technology and Research (A*STAR) brokers academic research toward multinational-manufacturer needs, converting university R&D into industrial contract research (UBA, 2025; NPA, 2025). South Korea paired sustained public R&D (near 5 percent of GDP) with tax credits of up to roughly 30 percent on qualifying private R&D, drawing conglomerate co-financing into national priorities — the World Bank cites both countries as having invested heavily in education and health during their demographic-dividend window (World Bank, 2023; NPA, 2025).

5.4 Vietnam

Vietnam attracted high-tech FDI (Samsung, Intel) into industrial zones, mandating local supply-chain integration and joint technology-transfer institutes — a model directly applicable to Uganda's refinery, railway and mining concessions (NPA, 2025).

5.5 Indonesia and Australia

Indonesia's state banks use sustainable and social bonds to catalyse private investment in industrial upgrading and green technology, a plausible complement to Uganda's proposed STI-labelled bonds (UBA, 2025). Australia's 2023–2030 Cyber Security Strategy, organised around six “shields” spanning resilient businesses, safe technology and protected infrastructure, offers a template for refreshing Uganda's own expiring National Cybersecurity Strategy (Government of Australia, 2023, as cited in UBA, 2025).

5.6 Cross-Cutting Lessons

Three lessons recur: credit alone does not build an innovation ecosystem — it must pair with incubation, IP protection and skills; guarantees and blended finance unlock more private capital than direct public lending by changing banks' risk-adjusted return calculus; and digital public infrastructure (switches, eKYC, data rails) is usually the precondition for scalable STI lending, as India's RBIH shows most clearly.

6.0 BRIDGING THE GAP: A CONSOLIDATED TEN-POINT ACTION PLAN

Uganda's own ATMS strategy already proposes an architecture broadly consistent with the lessons above; execution and scale, not design, are the binding constraints. The following ten measures fuse the financial-sector interventions the industry has proposed with the fiscal and institutional reforms international experience points to (UBA, 2025; NPA, 2025):

1. **Legislate a statutory STI allocation** of at least 1.0 percent of GDP for a national Innovation & Research Fund, financed through a levy on telecom transactions, mineral royalties and high-tech imports, moving toward the AU's Khartoum benchmark.
2. **Complete the digital public infrastructure agenda** — finish the National Switch (currently back in procurement after cancellation) and Phase 2 biometric eKYC — to lower transaction costs and make digital micro-credit viable at scale, on India's RBIH model.
3. **Codify credit guarantees and blended finance in regulation, not pilots:** an STI Credit Guarantee Fund covering 50–80 percent of MSME loans (Rwanda's model), recognised by the Bank of Uganda for capital-adequacy purposes, plus DFI-backed blended facilities targeting 8–12 percent effective rates.
4. **Diversify beyond bank balance sheets** with STI-labelled bonds and a CMA-regulated venture-debt/co-investment fund — an "Innovation Uganda" facility — to crowd in private and foreign venture capital, since rising government borrowing already crowds bank lending.
5. **Use fiscal policy to co-finance private R&D:** an enhanced tax deduction on verified R&D expenditure and university-industry technology-transfer partnerships, on Korea's tax-credit model.
6. **Build innovation hubs and science parks** with an upstream research-brokering function (Singapore's A*STAR model) at industrial nodes such as Namanve, Jinja, Mbale and Gulu.
7. **Fix the STI data gap** by integrating an ISIC-aligned STI code into the BS100 reporting framework so regulators can track actual STI credit flows rather than proxy estimates.
8. **Invest in the STEM and human-capital pipeline** in parallel with finance — curriculum and scholarship reform tied to industry placement and commercialisation outcomes, closing the 2:5 vs 3:5 enrolment gap.
9. **Strengthen IP protection and mandate technology transfer:** streamline patent filing and establish university technology-transfer offices, and require enforceable local-content/technology-transfer clauses on major foreign-financed projects (Vietnam's model).
10. **Build monitoring and experimentation infrastructure:** cross-sectoral regulatory sandboxes (BOU, UCC, National Drug Authority) for fintech, health-tech and drone applications, and an independent, NPA-housed STI monitoring dashboard tracking TFP growth, patent volume and export value added.

7.0 RISKS TO WATCH

Financial risk from high STI-venture default rates requires guarantees and blended finance to be genuinely operational. Institutional risk — banks' limited capacity to appraise STI projects — calls for dedicated financing desks and research-institution partnerships. Regulatory risk (weak IP enforcement, unclear lending guidelines) needs the BoU sector classification codes and guarantee-recognition reforms above to actually be enacted. Market risk (limited commercialisation) argues for continued incubation support and public procurement of domestic STI products. Human-capital risk (innovators lacking financial literacy) argues for mentorship alongside credit expansion. Macroeconomic risk — inflation, exchange-rate volatility and high domestic rates — could crowd out the concessional, patient credit STI needs, reinforcing the case for capital-markets alternatives to ordinary bank lending (UBA, 2025).

Cybersecurity and fraud risk is intensifying alongside STI adoption itself: customer fraud and cybercrime were already 2024's two most common economic crimes in Uganda

(Section 3.2), and the trend has not reversed. The Bank of Uganda's most recent financial stability assessment shows supervised financial institutions' gross operational losses rising to UGX 11.4 billion in the quarter to June 2026, up from UGX 4.7 billion the previous quarter, driven mainly by external fraud (UGX 5.6 billion) and process-management failures (UGX 4.1 billion); the aggregate industry operational risk capital charge rose in step, to UGX 504 billion (Bank of Uganda [BOU], 2026). Regulatory reporting is improving but still partial — only 16 of Uganda's supervised financial institutions submitted the quarterly cyber-incident reports required under the 2024 Cyber and Technology Risk Guidelines, up from 6 the previous quarter (BOU, 2026) — while the rapid, largely unmonitored adoption of artificial intelligence within banks adds a fast-moving layer of model, data-governance and fraud-detection risk that supervision has not yet caught up with (BOU, 2026). Left unaddressed, this could erode confidence in STI-enabled financial services just as easily as capital-market or credit risks do.

8.0 CONCLUSION

Uganda's Ten-Fold Growth Strategy and NDP IV are right to treat STI as a cross-cutting lever rather than a stand-alone sector — in growth-accounting terms, it is the only plausible route to the total factor productivity gains a USD 50–500 billion transformation requires (Solow, 1956). But the numbers are demanding on two fronts at once: closing the gap between today's roughly UGX 2.8 trillion in STI-attributable credit and the UGX 23.8 trillion 2040 target requires far more efficient use of every shilling lent, while lifting R&D intensity off a two-decade oscillation around 0.1–0.4 percent of GDP (0.44 percent at its 2023 peak) toward NDP IV's 1 percent target requires the sustained, multi-decade fiscal commitment that South Korea shows is possible, but which goes beyond banking alone (World Bank, 2026). None of the instruments proposed here is novel; Kenya, Rwanda, India, Singapore, South Korea, Vietnam, Indonesia and Australia have each used some combination to scale STI-driven growth over the past two to four decades. What Uganda now needs is disciplined, sequenced execution of an architecture its own banking industry, National Planning Authority and international partners have already largely designed — the ten-point plan in Section 6 is offered as a starting checklist.

REFERENCES

1. African Development Bank (AfDB). (2024). East Africa economic outlook: Driving structural transformation through knowledge networks. AfDB.
2. African Union (AU). (2015). Agenda 2063: The Africa We Want. African Union Commission.
3. Bank of Uganda (BOU). (2026). Financial stability risk assessment report:, September. Bank of Uganda.
4. Government of Australia. (2023). 2023–2030 Australian Cyber Security Strategy. Department of Home Affairs.
5. Hamdy, A., et al. (2024). Science, Technology and Innovation Strategy for Africa (STISA) 2024. African Union / African Union Development Agency.
6. International Monetary Fund (IMF). (2025). Uganda's Tenfold Growth Strategy: Lessons from Singapore's economic miracle. Public Financial Management Blog.
7. Kasaija, M. (2025). Budget Speech, Financial Year 2025/2026. Ministry of Finance, Planning and Economic Development, Republic of Uganda.
8. Makerere University. (2025). Strategic Plan 2025–2030: Aligning higher education research with national Ten-Fold Growth targets. Makerere University Press.
9. Ministry of Information, Communications Technology and National Guidance (MoICT). (2024). ICT sector performance report 2024. Government of Uganda.
10. Mobility Bureau, Science, Technology and Innovation Secretariat, Office of the President. (2024). E-mobility sector performance report. Government of Uganda.
11. National Bank of Rwanda (BNR). (2023). Financial stability report 2022/23, including the fintech regulatory sandbox framework. National Bank of Rwanda.
12. National Information Technology Authority-Uganda (NITA-U). (2023). National information technology survey report 2023. Government of Uganda.
13. National Planning Authority (NPA). (2024). The Ten-Fold Economic Growth Strategy: Unlocking Uganda's \$500 billion ambition. Ministry of Finance, Planning and Economic Development.
14. National Planning Authority (NPA). (2025). Fourth National Development Plan (NDP IV) 2025/26–2029/30. Government of Uganda.
15. PwC. (2024). Meeting tomorrow's challenges, embracing risk intelligently: Global Economic Crime Survey 2024 – Uganda report. PricewaterhouseCoopers.
16. Rwanda Development Board (RDB). (2024). Annual report 2023/24: Innovation, investment and enterprise development. Government of Rwanda.
17. Solow, R. M. (1956). A contribution to the theory of economic growth. Quarterly Journal of Economics, 70(1), 65–94.

18. Uganda Bankers Association (UBA). (2025). Banking industry response to the Government of Uganda's ATMS strategy: Mobilising capital for the private and public sector to facilitate the tenfold growth (1st ed.). October 2025.
19. Uganda Bureau of Statistics (UBOS). (2026). Annual Gross domestic product (AGDP series) of Uganda: Fiscal year publication tables, June 2026 release.
20. United Nations Conference on Trade and Development (UNCTAD). (2023). Technology and innovation report 2023: Opening green windows — opportunities for developing countries. United Nations.
21. World Bank. (2023). Uganda economic update, December 2023: Assessing the quality, efficiency, and effectiveness of public spending in education. World Bank Group.
22. World Bank. (2026). World Development Indicators: Research and development expenditure (% of GDP) [Data extract, series GB.XPD.RSDV.GD.ZS]. Last updated 13 July 2026.
23. World Intellectual Property Organization (WIPO). (2024). Global Innovation Index 2024. WIPO.



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