

Strengthening TVET Financing, Connecting Policymakers, Institutions, and Industry Leaders in Rwanda

POLICY BRIEF – RWANDA

MAY 2025

Disclaimer: This policy brief was produced in the context of the Inclusive Economic Transformation Research partnership with the Mastercard Foundation. The Inclusive Economic Transformation Research program, a five-year initiative running between August 2023 and August 2028, was conceived to support youth education and poverty relief through financial inclusion. The views expressed do not necessarily represent those of the Foundation, its staff, or its Board of Directors.

Introduction

This policy brief explores how public-private partnerships (PPPs) can be effectively harnessed to co-finance infrastructure and procure modern equipment, co-develop demand-driven and responsive curricula, expand apprenticeships and internship programs, and strengthen governance and quality assurance across technical and vocational education and training (TVET) institutions. According to the Association for the Development of Education in Africa (ADEA) report (2020), TVET institutions in several African countries face chronic underfunding, which significantly hampers efforts toward digital adoption and modernization. For example, only 6.96 percent of the Côte d'Ivoire education budget is allocated to TVET, compared with 20 percent in Rwanda, 12 percent in Uganda, 3.54 percent in Morocco, and 2-3 percent in Mauritius. This limited financial support constrains the ability of TVET institutions to invest in modern infrastructure, specialized equipment, and digital learning tools, ultimately affecting the quality and relevance of vocational training. To address this gap, TVET institutions must prioritize the development of productive public-private partnerships (PPPs).

These partnerships are key to building a dynamic, industry-aligned, and future-ready TVET ecosystem in Rwanda. To catalyze the transformation of the TVET sector, this policy brief advocates a significant increase in the Ministry of Education's TVET budget share from the current 2 percent to at least 10 percent by 2028. This increased investment must be supported by strong private sector participation, engagement of development partners, and broad stakeholder commitment to Rwanda's Vision 2050 goals.

A forthcoming study by the Institute of Policy Analysis and Research-Rwanda (IPAR) points out that the government alone cannot sustainably finance the TVET sector to meet current and future needs. This underscores the urgent need for a paradigm shift towards PPPs as a strategic mechanism for mobilizing resources, enhancing training quality, and ensuring alignment between education and labor market

demands. This policy brief adopts a mixed-methods approach, combining comprehensive desk review of regional and national policies related to TVET, employment, and youth skills development. Primary data were collected through consultations with Rwanda YES-PACT steering group, including officials from the ministries of Education, Public Service and Labour, Commerce, and Industry as well as representatives from the Rwanda TVET Board, TVET institutions, and administrators.

Background and policy context

Rwanda's working-age population stands at 8.3 million, with 4.3 million employed, 869,000 unemployed, and 3.1 million outside the labor force (NISR, 2024). While labor force participation has increased to 62.5 percent, a significant and persistent challenge is that 23 percent of the youth (1.15 million) are not engaged in employment, education, or training (NISR, 2022). Key policies such as the National Skills Development Policy (2016), National Employment Program (2014-2019), and the TVET Strategic Plan (2019-2024) all aim to align education with labor market demand, improve training quality, and promote PPPs. These policies also support Rwanda's Vision 2050, which prioritizes a knowledge-based economy, innovation, and inclusive workforce development through TVET. The National Skills Development and Employment Promotion Strategy (2019-2024) further emphasizes entrepreneurship, gender equality, and creativity in technical fields. The establishment of the Financial Sector Skills Council in 2022 aims to align workforce development with financial sector needs and promote lifelong learning. This initiative also helps to bridge the education-employment gap and increase Rwanda's preparedness for the Fourth Industrial Revolution (4IR).

Investment in TVET is vital for closing the skills gap and driving economic growth, with PPPs playing a key role in collaboration with development partners. Thus, strengthening Rwanda's TVET system requires innovative and sustainable financing mechanisms. Traditional public funding for TVET often falls short of the sector's growing needs, particularly in the context of 4IR and the country's long-term development agenda. To address these gaps, PPPs have emerged as a strategic approach to mobilizing resources, improving training quality, and ensuring industry relevance.

Oviawe et al. (2017) state that PPPs can significantly enhance skills development by facilitating the sharing of tools, equipment, and infrastructure between TVET institutions and industries. This collaboration ensures that students are trained using technologies and processes currently used in the workplace, thus bridging the skills gap between training institutions and employers. Similarly, Melesse et al. (2022) and Magutu et al. (2023) argue that industry-led training programs and private sector-supported infrastructure investments are essential for revitalizing TVET systems across Africa. In Rwanda, many institutions operate with outdated infrastructure and inadequate facilities, which limits their capacity to deliver high-quality, practical training.

Given public budget constraints, innovative multi-stakeholder financing models—involving the government, private sector, and development partners—are increasingly vital for sustainable skills development. As highlighted by Magutu et al. (2023), financing models have proven effective in countries like Kenya, Rwanda, and The Gambia by sharing financial responsibility and leveraging diverse expertise. Beyond funding, private sector involvement ensures that TVET programs are aligned with labor market demand. According to Frey and Osborne (2023) and Kraak (2022), collaboration among industry leaders, policymakers, and training institutions is essential for developing demand-driven curricula, particularly in high-growth sectors like digital technology, automation, and green energy. The International Labour Organization (2024) in turn affirms the vital role of PPPs in equipping students with digital and future-ready skills, enhancing their employability in a rapidly changing job market.

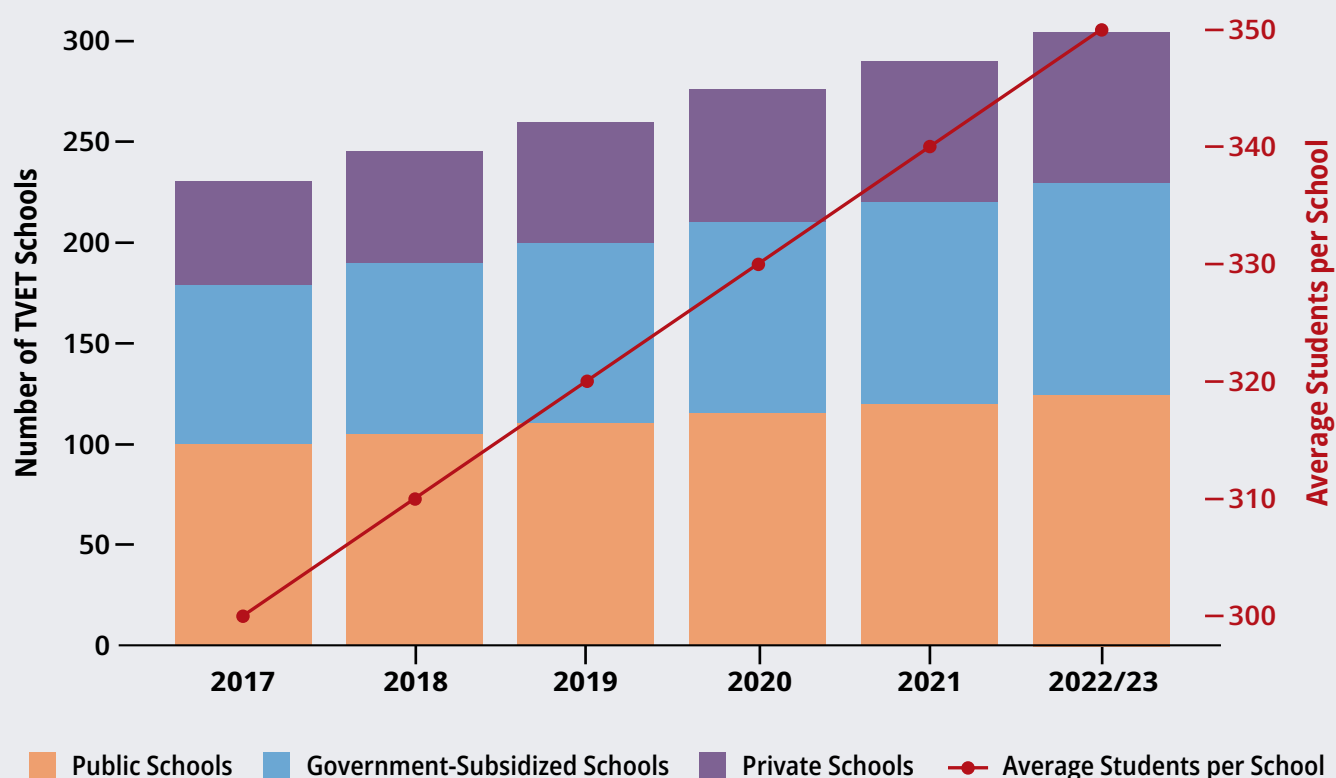
Despite the growing awareness, challenges persist. A major issue is the misalignment between TVET curricula and labor market demands, often due to limited dialogue and collaboration between academia and industry (Buchanan and McKinsey, 2021). This disconnect results in graduates who are ill-prepared for available jobs, exacerbating youth unemployment and underemployment. To overcome these systemic challenges, Rwanda must prioritize increased and diversified investment in the TVET sector. Raising the Ministry of Education's allocation to TVET from the current 2 percent to at least 10 percent by 2028 is a critical step. However, achieving this target will require more than government commitment. It necessitates robust partnerships with the private sector, development partners, and civil society. By institutionalizing PPPs, Rwanda can mobilize additional resources, modernize training infrastructure, and ensure that TVET programs are responsive to labor market dynamics. This approach will not only enhance the employability of Rwandan youth but also contribute significantly to the country's broader economic transformation goals under Vision 2050.

PPPs are a key solution to the financial and structural challenges facing Rwanda's TVET system. They not only help close funding gaps but also improve the relevance and quality of vocational training. By involving industry stakeholders in curriculum design, PPPs ensure that training aligns with in-demand skills, particularly in sectors like digital technology, automation, cybersecurity, renewable energy, and industrial automation (Munyaneza et al., 2022). Additionally, PPPs enable work-based learning through internships and apprenticeships, equipping students with practical, job-ready experience that traditional classroom learning often lacks.

According to Munyaneza et al. (2022) and Frey and Osborne (2023), integrating private sector involvement into the TVET system helps bridge the education-to-employment gap by improving graduate employability and reducing the transition time into the workforce. The private sector contributes funding, expertise, modern equipment, and industry training materials, which is especially valuable for under-resourced institutions. These inputs enhance the quality and relevance of training. As Rwanda moves toward its Vision 2050, public-private partnerships are crucial for building a demand-driven TVET system that promotes economic growth and tackles youth unemployment.

Evidence and milestones

TVET enrollment in Rwanda has increased steadily since 2017, driven by government efforts to expand vocational training and improve accessibility, especially in public and subsidized institutions. Although enrollment decreased in 2021 due to COVID-19, it began to recover in 2022 with the easing of the pandemic and renewed government support. Key initiatives such as the Skills Development Fund (2015) and the TVET Policy (2019) have played a significant role in boosting enrollment and enhancing training quality by addressing skills gaps and promoting high-demand and market-relevant training programs. Figure 1 on page 4 provides an overview of student enrollment in TVET schools by status.

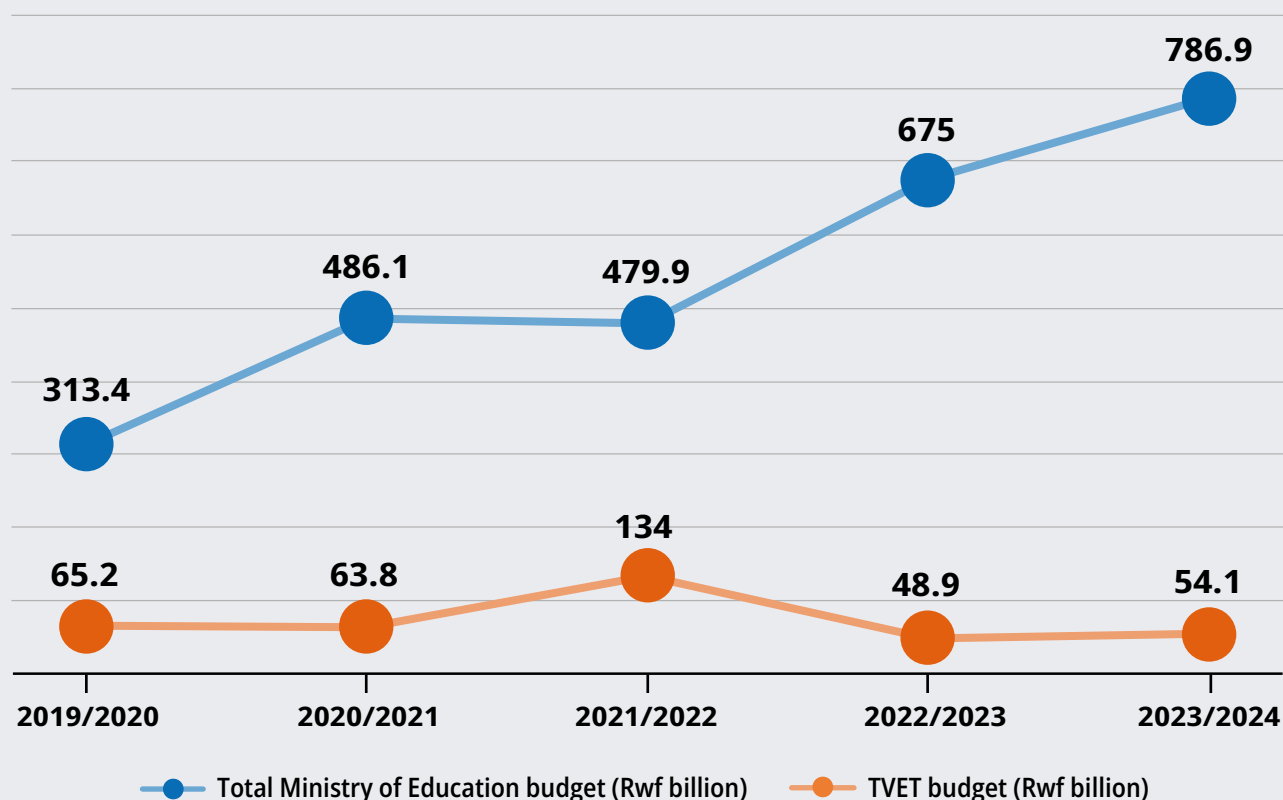
Figure 1: Number of TVET Schools by School Status (2017-2022/23)

Source: Ministry of Education Census, 2024

The data show a shift towards greater public investment in TVET education, with both public and government-subsidized schools experiencing growth in terms of number and student enrollment. The private sector, on the other hand, has faced a decline in the number of institutions but has managed to increase its average number of students per school. This could imply changing dynamics in the vocational education landscape, where public institutions are playing a larger role in meeting the demand for skilled labor.

TVET funding

In recent years, the government has prioritized funding for TVET to support its economic development and industrialization goals. Significant investments have been made in infrastructure, including the construction of over 4,000 classrooms by 2024, renovation of TVET institutions, training more instructors, and developing relevant curricula. However, challenges persist, including inadequate infrastructure, shortages of qualified instructors, insufficient facilities, limited teacher training, and slow adoption of digital technologies. Additionally, a mismatch between education and labor market demand continues to hinder the effectiveness of TVET, limiting economic growth and social inclusion.

Figure 2: Total TVET budget allocation, 2019-2024 (Rwf billion)

Source: IPAR Policy Brief, 2024

Government funding remains the primary source of TVET financing in Rwanda. The budget allocated to the Ministry of Education in the financial year 2019/2020 was Rwf313.4 billion (\$220.74 million). Out of this, Rwf65.2 billion (\$45.92 million) was allocated to TVET. There was a noticeable decrease in the budget allocation to TVET institutions from 2019 to 2020, followed by a recovery in subsequent years. Despite the fluctuations, the share of the education budget allocated to TVET remained relatively low after 2019. In the 2020/2021 financial year, the total education budget was Rwf486.1 billion (\$342.38 million), of which Rwf63.8 billion (\$44.94 million) was allocated to TVET.

In the following year, 2021/2022, the total education budget decreased to Rwf479.9 billion (\$338.01 million), of which Rwf134.0 billion (\$94.36 million) was allocated to TVET. The 2022/2023 budget rose to Rwf675 billion (\$475.43 million), with Rwf48.9 billion (\$34.44 million) allocated to TVET, marking a 17 percent increase in TVET funding. In 2023/2024, the total education budget was Rwf786.9 billion (\$554.25 million). Out of this, Rwf54.1 billion (\$38.1 million) was allocated to TVET, accounting for 15 percent of the Ministry of Education's total budget. This reflected government recognition of the crucial role that TVET plays in developing skills and addressing labor market shortages.

In the 2024/2025 financial year, budgetary allocations to the education sector increased slightly, reaching Rwf793 billion (\$558.9 million). However, this represents only 13.9 percent of the national budget, marking a decline in the sector's share of total government spending. Out of the total budget allocated to the Ministry of Education, only Rwf14.6 billion (\$10.3 million) or 2 percent of the education budget was allocated to TVET. This allocation falls short of the UNESCO benchmark, which recommends that governments allocate 15-20 percent of their national budgets to education (Top Africa News, 2025)

The limited budget underscores the urgent necessity of attracting complementary financing through PPPs to close infrastructure gaps, modernize training facilities, and enhance the quality and relevance of TVET across the country. Additionally, the gap between the government's support and the private sector's actual needs underscores the urgency of increased investment in TVET to unlock its full potential in terms of developing a future-ready workforce and meeting the goals of Vision 2050.

Empirical review and analysis of the private sector role in revitalizing TVET

TVET institutions cannot successfully fulfill their mandate of producing skilled graduates if they operate in isolation from the industries that employ them. In countries such as Austria, Germany, Hungary, South Korea, and Switzerland, collaboration between educational institutions and industries is a foundational element that facilitates the successful transition of learners from school to the workforce. For example, apprenticeship programs through strong school-industry linkages enable students to acquire practical skills in real workplace environments while simultaneously undergoing theoretical training in schools. This collaborative approach benefits all stakeholders: students gain relevant, hands-on experience, schools remain aligned with current industry standards, and companies have the opportunity to train and potentially recruit future employees (Lassnigg, 2023; Makai and Ramhap, 2021).

The private sector plays a vital role in enhancing the quality of TVET, both as a major employer and training partner. As the world adapts to the post-COVID-19 “new normal,” aligning TVET programs with the evolving demands of industry has become a top priority. However, despite being central stakeholders in the TVET ecosystem, companies and development partners often lack opportunities for global interaction and knowledge exchange. Many of these actors are working independently towards a common goal—improving the relevance and quality of TVET—but their efforts frequently remain disconnected and invisible to one another. Creating more inclusive platforms for collaboration is essential for bridging this gap and fostering stronger and more coordinated progress (UNESCO-UNEVOC, 2023)

In Rwanda, the private sector plays a crucial role in revitalizing the TVET system by bridging the gap between education and the labor market. Recognizing this, numerous global institutions and experts have emphasized the importance of private sector engagement in enhancing TVET outcomes and aligning skills development with evolving market needs. For instance, the ILO (2020), underscores the need to close the gap between education and employment through fostering strong collaboration between TVET institutions and industry stakeholders in the development of curricula, apprenticeships, mentorship initiatives, and skills development programs, ensuring that training is relevant, up-to-date, and aligned with labor market needs. Similarly, Bahar and Meierkord (2024) highlight the role of the private sector in addressing skills mismatches by contributing technical expertise, integrating modern technologies into training programs, and ensuring training quality across key sectors like ICT, manufacturing, and renewable energy.

Subrahmanyam (2020) views the private sector not only as an end-user of skilled labor but also as a co-investor in education, contributing equipment, training resources, and participation in advisory bodies to keep curricula responsive to industry shifts. The African Development Bank (2021) advocates stronger PPPs to tackle youth unemployment, modernize training infrastructure, and tailor programs to emerging fields like green technologies and digital innovation. In line with this, the European Training Foundation (2020) stresses the importance of involving businesses in program design, delivery, and graduate assessment to ensure job-readiness. The International Labour Organization (2020) also calls for strategic collaboration with industries to anticipate future skills, especially in the digital economy. The Commonwealth Secretariat (2017) further emphasize the private sector's role in ensuring TVET systems

are adaptable to economic trends and sustainability goals through financial support, policy input, and green skills integration. Ultimately, the active participation of businesses in shaping and supporting TVET is essential for building a workforce that meets Rwanda's current and future development needs. By fostering robust public-private collaboration, Rwanda can develop a dynamic, inclusive, and future-oriented TVET ecosystem that drives economic transformation and meets the demands of the Fourth Industrial Revolution.

In a similar vein, Grunewald (2008) identifies key areas of collaboration between TVET institutions and the private sector that contribute to the overall quality and relevance of TVET. These include identifying the training needs of technical staff, setting standards for vocational and technical educators, developing training programs and syllabi that reflect current industry demands, and facilitating the training and retraining of technical teachers and workshop attendants. Such partnerships are critical in ensuring that TVET systems remain responsive to labor market needs, thereby improving graduate outcomes and fostering economic development.

At the 2025 Conference on Skills Development and Employment in Kigali, the Director-General of the Rwanda TVET Board emphasized that today's labor market increasingly demands practical and technical skills that not only prepare young people for employment but also empower them to create jobs. He underscored the critical importance of aligning education with the realities of the economy, stating that this begins with deliberate and robust collaboration between academia and industry. "The private sector must play a central role in shaping what we teach, how we teach it, and how we prepare learners for the world of work," he said. "We must stop producing graduates whose qualifications do not align with the needs of the labor market."

Regarding policy reforms, the Director-General called for a number of strategic actions. First, he advocated the integration of talent identification and career guidance into national policy frameworks, starting from the earliest stages of education. Second, he highlighted the need for seamless collaboration across all levels of education to ensure both vertical and horizontal mobility within the system. Finally, he urged a fundamental rethink of the teaching profession to reflect the evolving demands of a skills-driven economy.

Empirical review of the key challenges confronting the TVET sector

The TVET sector is widely recognized as a key driver in building a skilled workforce capable of meeting the demands of the modern labor market. However, despite this recognition, the sector continues to face several interrelated challenges that undermine its effectiveness in addressing youth unemployment and contributing to national development. A primary concern is the persistent mismatch between the courses offered in TVET institutions and the actual skills demanded by the labor market. Current policies lack clear guidance on aligning training programs with job market needs, often resulting in an oversupply of graduates in certain trades with limited employment opportunities (RDB, 2022).

According to the African Center for Economic Transformation (ACET, 2024), one of the most critical and commonly cited issues is the widespread use of outdated training equipment.

This concern is echoed by key stakeholders, including 88.5 percent of heads of institutions, 87 percent of teachers, 93 percent of students, 73 percent of parents, and 67 percent of employers. The relatively lower level of concern among employers, however, highlights a disconnect between industry and training institutions that needs to be addressed through stronger collaboration.

Further compounding the problem is the limited availability of essential training resources. A 2021 report by the Japan International Cooperation Agency highlights significant shortages of standardized workshops, tools, materials, consumables, and textbooks in TVET schools, particularly in private institutions. These resource gaps severely constrain students' ability to acquire practical, hands-on skills that are crucial for employability. Transparency International (2022) and the Rwanda Development Board (2025) reinforce this point, noting that the quality of education is compromised by inadequate infrastructure and equipment, contributing to a low skills base and reduced graduate employability. Puttanna (2017) and Hakizayezu and Maniraho (2022) also emphasize the critical skills mismatch between TVET training and labor market demands.

According to the State of Skills Supply and Demand report by the Rwanda Development Board (2022), language policy inconsistencies—specifically, shifts between English and French as the medium of instruction—have disrupted curriculum delivery and exacerbated learning challenges. Even with ongoing government efforts to integrate technology and create 214,000 productive jobs annually under Vision 2050, the TVET sector struggles to meet the rapidly evolving demands of the labor market. This challenge is intensified by global labor trends such as outsourcing, freelancing, and the casualization of work in the context of the Fourth Industrial Revolution.

Mungai et al. (2025) stress the urgent need for improved resource allocation, stronger alignment of policies with labor market needs, and enhanced collaboration between public and private stakeholders. Similarly, the Rwanda Development Board (2022) identifies a major skills mismatch in the country, with about 50 percent of the labor force lacking qualifications needed by employers. This gap contributes to high unemployment and underemployment, hindering economic growth and deterring investment. The report attributes the issue to education and training systems that do not provide industry-relevant skills. It calls for urgent reforms to align skills development with labor market needs, ensuring graduates are both employable and capable of boosting national productivity and competitiveness.

According to the Association for the Development of Education in Africa (ADEA, 2020), many TVET institutions still lack modern training equipment and adequate facilities, which hinders the delivery of job-ready skills. Infrastructure issues such as lack of electricity and inadequate water and sanitation also persist. Where equipment is available, improved management is needed to ensure its effective use. A significant gap exists between the skills taught and those demanded by employers or needed for self-employment. This mismatch is due to overly theoretical curricula, lack of skills-gap analysis and tracer studies, weak public-private partnerships, minimal involvement of the private sector in TVET governance and training provision, lack of gender-sensitive measures, gender stereotypes, and community beliefs that hinder women's participation in traditionally male-dominated TVET fields.

Furthermore, the absence of a clear subsidy policy has led to funding disparities. Although opportunities exist, private financing and public-private partnerships remain underutilized. Additionally, TVET programs are costly due to the need for infrastructure rehabilitation, modern equipment, and teacher training. To overcome these systemic challenges, Rwanda must move beyond traditional public investment approaches. Innovative and collaborative financing models, particularly PPPs, can provide transformative solutions. This approach is essential for enhancing the quality, relevance, and sustainability of TVET, thereby positioning the sector as a cornerstone of Rwanda's socio-economic development and its Vision 2050 goals.

Policy recommendations

To overcome the persistent challenges in Rwanda's TVET sector, the following policy interventions can enhance the quality, relevance, and sustainability of TVET, ensuring that it can equip the youth with the competencies required in an increasingly digital, innovation-driven economy shaped by the Fourth Industrial Revolution.

1. **Strengthen public-private partnerships.** Encourage the expansion and strengthening of PPPs in the TVET sector by formalizing collaboration agreements between the government, private companies, and industry stakeholders. This would facilitate shared investments in infrastructure, equipment, and training programs.
2. **Increase digital infrastructure and skills development.** The Ministry of Education, in collaboration with the Ministry of ICT, should invest in digital infrastructure for TVET institutions to equip students with the tools and skills needed for the digital economy. This includes funding for computers, software, and online platforms to prepare learners for technology-driven jobs in the context of the Fourth Industrial Revolution.
3. **Strengthen curriculum reform and skills anticipation mechanism.** The Rwanda TVET Board, together with key government ministries, the private sector, and academia, should revise the TVET curriculum to align with the demands of the Fourth Industrial Revolution by focusing on areas such as digital literacy, entrepreneurship, renewable energy, and advanced manufacturing. To ensure long-term relevance and responsiveness, a national skills anticipation body should be established to forecast future labor market needs and guide curriculum development accordingly.
4. **Improve teacher training and professional development.** The Ministry of Education should increase the focus on teacher training programs to ensure that instructors have the necessary skills and knowledge to deliver high-quality training aligned with industry standards.
5. **Expand access to TVET financing.** Increased support from the private sector, development partners, and donors is needed to fund infrastructure, modern equipment, and student enrollment, improving the system's effectiveness and sustainability.
6. **Lead public awareness campaigns to shift perceptions of TVET.** The Ministry of Education and the Rwanda TVET Board should lead public awareness campaigns highlighting the value of technical and vocational training, engaging schools, parents, and communities to promote TVET as a pathway to career success.
7. **Strengthen the role of industry in TVET governance.** Involving industry in TVET governance ensures that training aligns with labor market needs, thereby improving graduate employability. To support this, the government should create industry-inclusive advisory boards and increase the Ministry of Education's TVET budget share beyond the current 2 percent of its 10 percent national allocation.

Conclusion

This policy brief reaffirms the urgent need to strengthen public-private partnerships as a transformative lever for Rwanda's TVET sector. By mobilizing joint investments, aligning curricula with market needs, and expanding work-based learning opportunities, PPPs can help bridge persistent education-employment mismatches and modernize vocational education nationwide. A future-ready TVET system must be dynamic, inclusive, and deeply rooted in industry collaboration. The time to act is now—investing in youth skills is not just a pathway to employment, but a foundation for Rwanda's inclusive and innovation-driven transformation under Vision 2050.

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