

EFFECTIVE PUBLIC-PRIVATE PARTNERSHIPS IN TVET SKILL REFORM: LESSONS FROM SAUDI ARABIA

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INTERNATIONAL AVIATION TECHNICAL COLLEGE AT RIYADH

Introduction

The aviation industry in Saudi Arabia is experiencing rapid growth, driven by expanding fleets and increased demand for air travel. According to the General Authority of Civil Aviation (GACA), the Kingdom requires approximately 1,800 aviation technicians to enter the labor market each year to meet industry needs and avoid a shortage. This demand is amplified by the acquisition of new civil aircraft, underscoring the urgency of developing a skilled local workforce. The shortage of qualified aircraft maintenance personnel is not unique to Saudi Arabia. During consultations with Emirates Airline, it was revealed that the global aviation sector is struggling to keep pace with the need for maintenance technicians. Emirates alone requires nearly 150 technicians per month over a 24-month period but is able to recruit only 20 to 25 monthly, despite offering highly competitive salaries. This global context reinforces the importance of national initiatives to build domestic capacity.



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In 2013, TVTC launched a strategic initiative to establish a new model of technical education. This initiative led to the formation of Colleges of Excellence, a government-owned company created to contract international training providers to operate the newly formed International Technical Colleges (ITCs). This approach provided greater flexibility in contracting and ensured that the quality and relevance of training programs could be closely monitored and adapted over time. Initially, 30 ITCs were established across the Kingdom. However, after five years, the model was reassessed, and underenrolled colleges in smaller towns were phased out to focus on strengthening the remaining institutions and the broader technical-college network. In a significant step, a royal decree transferred full ownership of Colleges of Excellence to the government, designating it as a strategic entity to elevate the TVET sector and align it with national development goals.

One of the ITCs, International Aviation Technical College (IATC), is a paragon of this strategic transformation. Operating under this new model, IATC plays a critical role in equipping young Saudis with the skills required in aviation engineering and maintenance. Offering both civilian and military training tracks, the college directly supports Vision 2030 objectives by fostering local expertise and reducing dependence on foreign technical labor.



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Governance and strategic partnerships

IATC was established as a strategic partnership between Shamal Investment Group and Aviation Australia, an Australian aviation training organization. Its purpose was to meet the growing national demand for aviation maintenance professionals. As a government-owned institution operated by an international training provider, IATC combines global expertise with local strategic direction.

All tuition fees are fully covered by the government through TVTC. In addition, students receive a monthly stipend of SAR 1,000, with sponsoring entities often providing supplementary financial support to attract and motivate high-performing candidates. This sponsorship-based model incentivizes both student performance and industry engagement.

IATC operates under a multistakeholder governance structure designed to ensure relevance, accountability, and excellence. A notable example of this collaboration is the strategic agreement with the Royal Saudi Air Force, which requires the college to deliver approximately 1,100 graduates annually to support military aviation operations. This 10-year agreement reflects the level of trust and reliance placed on the college to supply skilled personnel for critical national functions.

The college's performance is closely monitored through government-mandated KPIs, including graduate employment rates. The IATC celebrated 1,291 graduates for the 2024–2025 academic year, of which 85% of this cohort has already secured employment across Saudi Arabia's civil and military aviation sectors.

This demonstrates strong alignment between training outcomes and labor market needs. As part of its growth strategy, IATC has begun opening its programs to international students, positioning itself as a regional hub for aviation education. The college also participates in student-exchange initiatives supported by TVTC, leveraging its global training-provider network to expand learning opportunities and cultural exchange.

While IATC does not fall under NCSP, and thus is not classified as a strategic partnership institute, strategic industry collaboration is a cornerstone of its success. Unlike colleges under the strategic partnership model, IATC is not exclusively employment linked. However, over the years, it has cultivated strong industry ties that have resulted in sponsorship of several employer-linked cohorts, most notably the multiyear agreement with the Royal Saudi Air Force, which continues to be one of the largest employers of IATC students.

Regular engagement with sponsoring companies ensures that training remains aligned with evolving industry standards and expectations. The college maintains a dedicated Employer Engagement Department responsible for building and sustaining relationships with government, military, and private sector entities. These partnerships have been integral to the college's development and reputation as a flagship institution within the Saudi TVET system.

The governance model supporting IATC is robust and collaborative. For example,

- The land is provided by GACA;
- The physical infrastructure was constructed by TVTC;
- Tuition and stipends are financed by TVTC;
- Aircraft used for training were donated by the Royal Saudi Air Force;
- Additional equipment contributions come from private sector partners; and
- The training provider is an internationally recognized institution from Australia.

An advisory board, composed of key industry stakeholders such as GACA, Riyadh Air, and Flynas, plays a critical role in shaping the strategic direction of the college. Advisory-board members actively guide program development and ensure industry alignment, underscoring their commitment to the institution and its contribution to the national aviation sector. Each sponsoring entity is further supported by dedicated liaison offices within the college, enabling daily interaction, oversight, and coordination regarding student development and training quality. This embedded approach ensures that partners remain closely involved in shaping student success.

The sponsorship process itself is formalized through memoranda of understanding, which outline student benefits and partnership obligations. Sponsorship models vary:

- Some entities engage at the recruitment stage, selecting students directly from the applicant pool.
- Others choose from among current students based on performance metrics and institutional evaluations.

- Many sponsors provide full employment contracts during training, allowing students to access social insurance, health care, additional stipends, and other employee benefits, thereby supporting Saudization and improving post-training outcomes.

The college has witnessed exponential growth in applications. It receives between 60,000 and 70,000 each semester for approximately 900–1,000 available seats. Admission is competitive, with applicants undergoing aptitude and English language testing. Students are selected based on merit and suitability, and final approval is often subject to sponsor-specific criteria, including physical and medical assessments. Currently, around 80 percent of students are sponsored. As Saudi Arabia pursues its strategy to privatize parts of the training sector, IATC is preparing for a new phase of development. While privatization aims to enhance cost efficiency and quality, government funding for students will remain.



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Program structure

IATC offers a dual training model, structured to meet both civilian and military aviation needs. Programs are fully accredited, and graduates have the opportunity to pursue higher education through recognition of prior learning and credit-transfer arrangements, both locally and internationally. All students begin with a foundation year focused on building core competencies. This preparatory phase includes English language instruction, targeting a minimum level of proficiency, alongside modules in technical English, Islamic studies, information technology skills, and aviation terminology. A fast-track option is available for students who perform well in placement tests. Successful completion of the foundation year, including the required English proficiency and Islamic studies assessment, is mandatory before students advance into specialized vocational programs. Because of rising demand, the studies in the foundation year have been relocated to a separate campus to accommodate growing enrollment, which currently stands at approximately 4,500 students.

IATC offers seven specialized programs, including one accredited directly by GACA. Graduates of this program are eligible to sit for the official GACA technician licensing examination immediately upon completion. This stands in contrast to other graduates, who typically must complete five years of work experience before qualifying for the exam. The GACA-aligned program is highly competitive and maintains rigorous academic standards, requiring students to achieve a minimum of 70 percent in each module, compared to 60 percent in other programs. Other diploma-level offerings include avionics, aircraft mechanics, drone maintenance (introduced in 2017), and communication datalink systems. Approximately 75 percent of enrolled students are sponsored by military entities, which often direct trainees into tracks that do not require GACA licensing, as their employment contexts do not demand it.



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The academic framework at IATC is based on an Australian vocational curriculum, with future revisions under consideration to incorporate updates informed by industry collaboration. For example, cooperation with Saudia Airlines has led to plans for joint training initiatives at the college, including programs for airline employees. These partnerships are expected to contribute to ongoing curriculum development and program alignment.

In parallel, the college places heavy emphasis on career preparation. Students receive comprehensive training in job-search skills, including CV writing, interview preparation, and employer expectations. This support is crucial, as graduates must compete in the job market. The college provides ongoing guidance to help students navigate these transitions successfully. Instruction is delivered in two shifts to maximize access: a morning-to-afternoon session and an afternoon-to-evening session. All instructors work full time, and many have over two decades of industry experience. This deep practical knowledge enriches the training environment, especially in areas such as advanced troubleshooting—where real-world insights often extend beyond textbook content. Students are encouraged to explore beyond the curriculum, and experienced instructors play a vital role in supporting deeper learning.



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The college is organized into two divisions, aligning with the nature of students' future employment. One division is designated for military students, while the other operates under the standards of GACA, preparing students for roles in the civilian and private aviation sectors. GACA-designated programs require instruction by licensed professionals, ensuring industry compliance and increasing employability. The college's reputation has attracted leading employers such as Boeing, who actively recruit from the student body. Strong recruitment partnerships are in place with major national airlines, including Saudia and Flynas. These organizations frequently identify candidates prior to graduation and may initiate hiring processes while students are still completing their studies. Many students are motivated to enter the private aviation sector, where they can demonstrate and further develop their hands-on skills in dynamic operational environments.

While IATC primarily focuses on diploma-level training, graduates have successfully transferred to international institutions, including those offering bachelor's degrees in aeronautical sciences. However, the college maintains a strong emphasis on technical skills, responding to industry feedback that highlights a pressing need for practitioners rather than management-focused graduates. Employers prioritize hands-on experience and operational competence over academic credentials alone, a philosophy that underpins the college's approach to training and development.

Lessons, takeaways, and challenges

IATC offers an example of how cohesive partnerships, specialized training, and real-world alignment can create a high-impact skills development model. Several key lessons and success factors emerge from the IATC experience, along with some important challenges that warrant consideration.

At the heart of IATC's success is seamless cooperation among diverse stakeholders. This includes military institutions, civil aviation authorities, regulatory bodies, and private sector employers. This collaboration ensures that training remains relevant, responsive, and rigorous. It further ensures regulatory compliance and creates direct pathways to licensure for qualifying students. Employers also actively contribute equipment, feedback, and employment opportunities. The on-campus liaison office has been instrumental in sustaining this relationship and maintaining training quality.

The specialized focus of IATC differentiates it from more general technical colleges. Its unmatched training resources, including access to 19 types of aircraft, underscore the depth of practical exposure students receive, which is rarely seen even in internationally renowned institutions.

Another lesson is the importance of instructor quality and real-world preparedness. Student feedback consistently emphasizes the pivotal role of instructors, many of whom have over 40 years of industry experience. Their mentorship extends beyond the curriculum, preparing students mentally, physically, and professionally for high-performance work in aviation. Students are trained not only in technical competencies but in job-readiness skills such as CV writing, interview techniques, and employer expectations. In addition, while the formal curriculum provides a solid foundation, instructors frequently supplement it with real-world insights, especially in areas like troubleshooting.

A standout feature of the IATC model is the clear and supported transition from training to employment. Students are supported beyond graduation, particularly in preparing for post-diploma certifications essential for career advancement. External OJT placements also connect students directly with potential employers. Industry representatives observe student performance firsthand, often initiating hiring before graduation. Students express strong confidence in their job readiness. Many report receiving employment offers immediately after graduation, with others assured of opportunities shortly thereafter.



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