



مركز الخليج للأبحاث  
Gulf Research Center

# GCC DEFENSE SECTOR OUTLOOK



2025

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# 1. Executive Summary

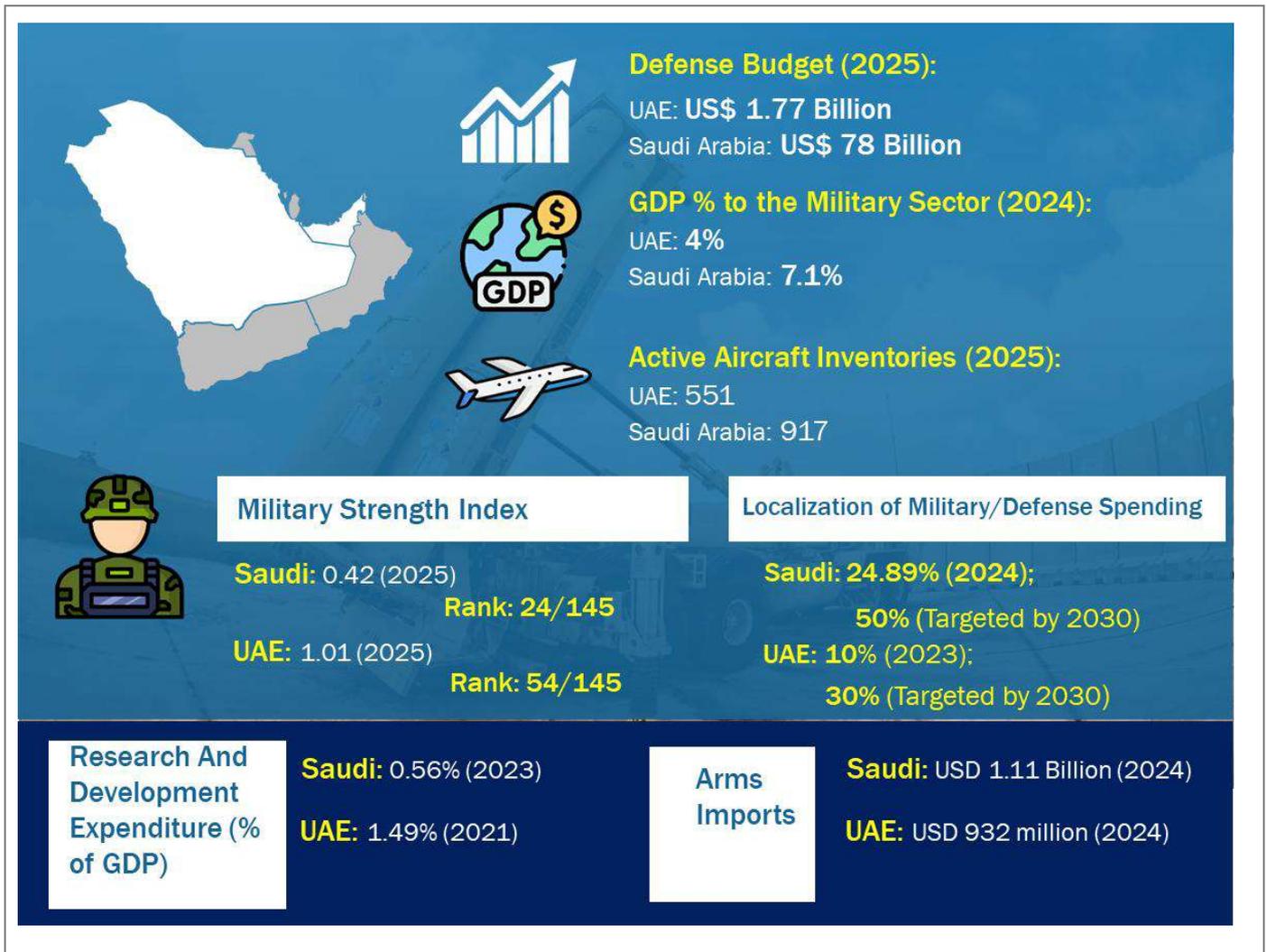
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The defense sectors of the Kingdom of Saudi Arabia (KSA) and the United Arab Emirates (UAE), including aviation and aerospace, are undergoing a significant transformation driven by strategic national visions, technological innovation, and increasing regional security demands. Both countries are focused on diversifying their economies, achieving defense self-reliance, and advancing indigenous capabilities through investments in emerging technologies such as artificial intelligence, autonomous systems, cyber security, and space technologies.

Saudi Arabia's defense spending reached approximately US\$ 78 billion in 2025, while the UAE's defense spending amounted to around US\$ 1.77 billion. The UAE aims to increase the share of domestic defense spending from 10% to 30% of total defense expenditure by 2030. Localization of military spending in Saudi Arabia reached 24.89% by the end of 2024, with a target to localize more than 50% of spending on defense equipment and services by 2030, supported by 311 licensed companies in the military industries sector in the end of 2024. Both Saudi Arabia's General Authority for Military Industries (GAMI) and the UAE's Tawazun Council are leading programs focused on upskilling national talent, supporting research and development, and strengthening strategic international partnerships.

Challenges such as the need to bridge talent gaps, streamline regulatory frameworks, and develop resilient supply chains capable of supporting sophisticated defense platforms that remain in the market. Cybersecurity and space defense capabilities are emerging priorities in the face of evolving threats. However, the defense outlook for KSA and the UAE is positive, with strategic focus areas including enhanced indigenous innovation, expanded regional and global partnerships, and sustained investments in human capital and infrastructure. These efforts will enhance national security and contribute significantly to economic diversification and regional leadership in defense technologies.

Figure 1. UAE and KSA Defense Sector (including Aviation and Aerospace) Landscape



Source: UAE Ministry of Finance, General Authority for Military Industries Saudi Arabia, CIA.gov, World Directory of Modern Military Aircraft, Global Fire Power and The Emirates Development Bank (EDB), General Authority for Military Industries (GAMI)

Note: Military Strength Index refers to a ranking of countries based on their military capabilities

## 2. Strategic Role of the Defense Sector

### 2.1 Overview

The defense sector, encompassing land, air, sea, cyber, and space domains, plays a pivotal strategic role in Saudi Arabia and the UAE as both nations seek to enhance national security, assert regional leadership, and drive industrial diversification. More than a mechanism for military preparedness, the sector functions as a key enabler of technological advancement, human capital development, and economic resilience.

### 2.2 Defense Sector's Role in Economic Diversification

The defense sector, in both Saudi Arabia and the UAE, is enhancing security and serving as a powerful lever for economic diversification. Saudi Arabia is ramping up domestic manufacturing and job creation, aiming to reduce reliance on oil. Meanwhile, the UAE is building institutional frameworks and industrial ecosystems to convert defense spending into industrial innovation, localization, and inclusive workforce development.

- **Saudi Arabia**

Saudi Arabia's defense sector has become pivotal to economic diversification under Vision 2030. According to GAMI, the Kingdom's military expenditure reached USD 75.8 billion in 2024, accounting for 7.1% of GDP, which is a clear reflection of the strategic importance of this sector in their broader fiscal and diversification agenda.

A significant stride forward is seen in domestic content uptake localization of military spending rose from 24.89% by the end of 2024 to 50% of total government spending by 2030, demonstrating meaningful progress toward the Vision 2030 objective of reaching 50% localization by 2030. By 2030, the sector is expected to significantly bolster the economy by contributing US\$17 billion to GDP, generating US\$9 billion in non-oil revenue, and creating 40,000 direct and 60,000 indirect job opportunities. Moreover, investments emerging from developing and localizing supply chains are estimated at ~US\$40 billion, according to GAMI.

These developments underscore how the defense sector is being leveraged not merely for security but as a dynamic engine for industrial growth, technology transfers, job creation, and robust economic diversification.

- **UAE**

The UAE's defense sector is also critical in their economic diversification trajectory. Defense spending is the second largest in the Middle East. It accounts for ~4% of GDP.

The UAE is advancing localization via industrial zones and specialized platforms such as Tawazun and Emirati Group for Development and Engineering (EDGE). The defense industrial infrastructure includes Tawazun Industrial Park and the Nibras Al Ain Aerospace Park, supporting companies such as Strata Manufacturing, which, in 2022, produced 74,128 aerostructure parts and had 30 production lines. Impressively, 64% of their workforce are UAE nationals, and 88% are women, underscoring a strategic focus on workforce localization and inclusion. Moreover, the UAE is actively converting defense procurement into diversified economic gains through offset programs and initiatives such as "Make it in the Emirates," which targets sectors like aerospace, advanced manufacturing, AI, and sustainability—aligning defense investments with broader industrial ambitions.

### 2.3 Integration with Vision 2030 (KSA) and UAE Centennial 2071

- **Saudi Arabia**

Saudi Arabia's defense sector is entering a critical phase as the Kingdom advances their strategy to reduce dependence on oil revenues and build a diversified, resilient economy. Central to this strategy is the development of the military industries sector, which has been prioritized under the Vision 2030 framework. Saudi Arabia aims to localize 50% of their total military expenditure by 2030, enhancing national security, achieving greater self-sufficiency, and driving economic growth by developing domestic defense capabilities. The GAMI plays a leading role in this initiative, serving as the regulatory and facilitative agency for the defense sector. Their responsibilities include managing technology transfers, optimizing military procurement processes, and promoting the expansion of domestic defense manufacturing.

Figure 2. Integration with Saudi Vision 2030



Source: Saudi vision 2030 site

Figure 3. Institutional Powerhouses

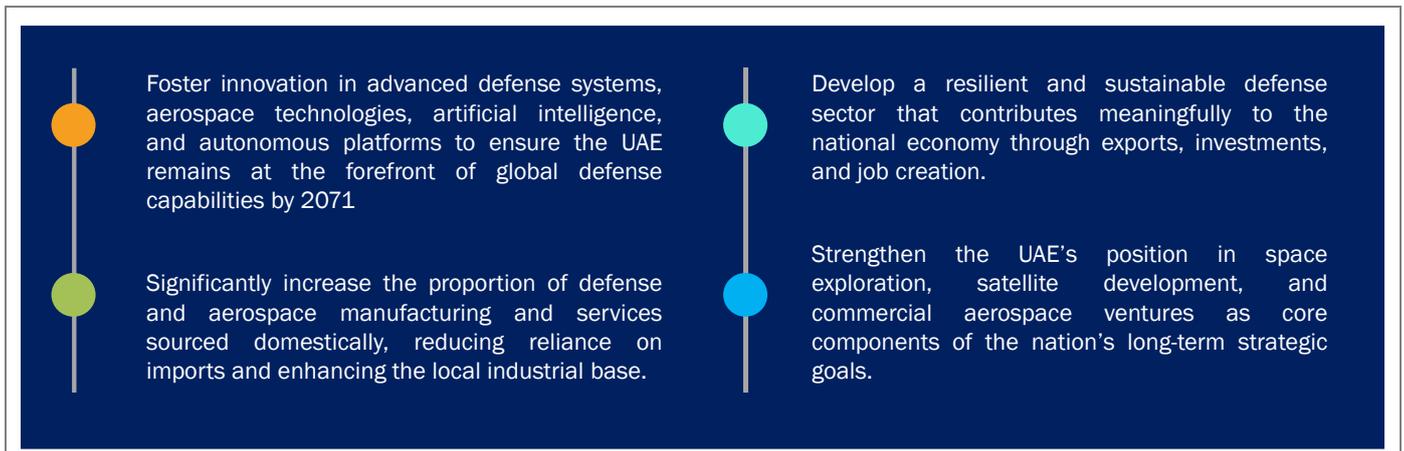


Source: Gov.sa - Saudi vision 2030 site

- UAE

The UAE's Centennial 2071 initiative charts a visionary path for the nation's development over the next 50 years, emphasizing sustainable growth, innovation, and global competitiveness. The defense sector, including aviation and aerospace, is a cornerstone of this vision, viewed as a strategic necessity and an economic growth engine. By fostering advanced technologies, local manufacturing, and global partnerships, the UAE aims to position itself as a leading regional and international defense and aerospace hub, supporting long-term national security and economic diversification.

Figure 4. Goals and Targets



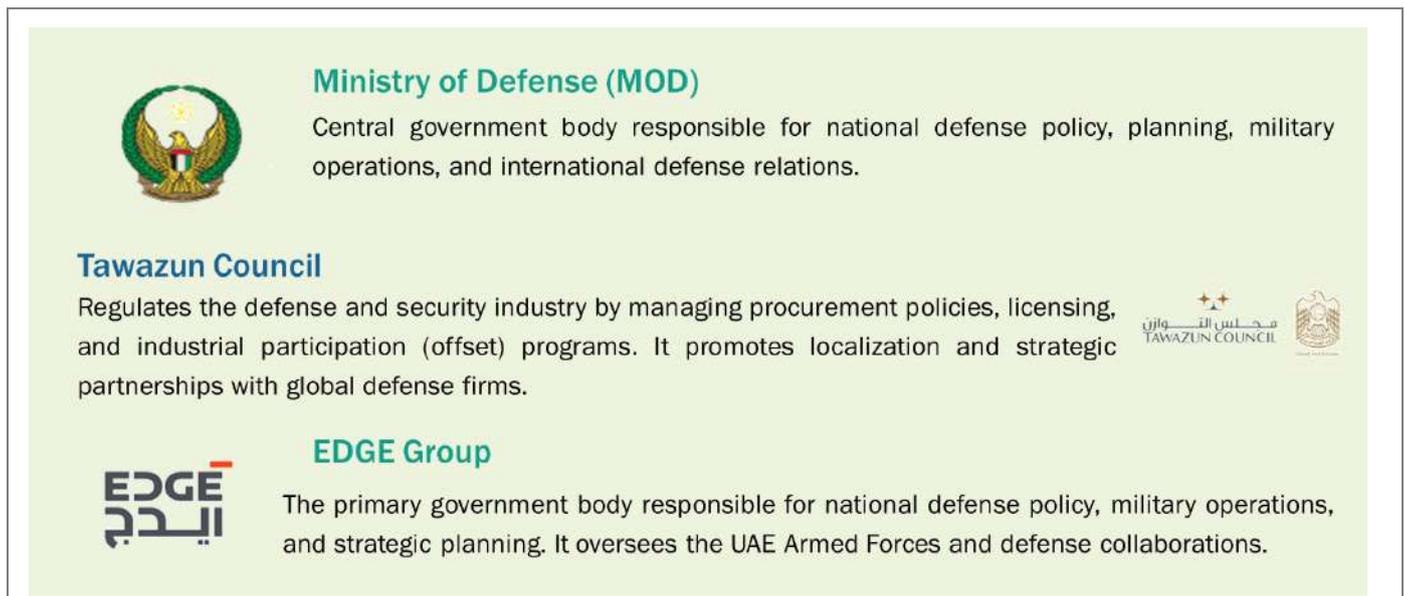
Source: The United Arab Emirates Government portal

Figure 5. Deals Under UAE Centennial 2071



Source: The United Arab Emirates Government portal

Figure 6. Institutional Powerhouses



Source: MoD, Tawazun Council, and Edge Group

## 2.4 Strategic Autonomy and Sovereign Capability Goals

### • Saudi Arabia

Saudi Arabia's strategic goal under Vision 2030 is to achieve strategic defense sovereignty by drastically reducing reliance on foreign suppliers and building a self-sufficient defense manufacturing and technology base. Specifically, the Kingdom aims to achieve a localization percentage exceeding 50% of total government spending on military equipment and services by 2030, a target reflecting its commitment to economic diversification and national security resilience.

To support this ambition, Saudi Arabia has expanded its defense manufacturing infrastructure dramatically, growing licensed facilities from 5 in 2019 to 296 by Q3 2024. Key institutional enablers include the GAMI, which regulates and drives localization policies, and SAMI—a Public Investment Fund (PIF) backed industrial entity targeting a position among the world's top 25 defense firms and projected to contribute around USD 3.7 billion annually to the economy by 2030.

Strategic international partnerships are another core element of Saudi Arabia's goal to fast-track technology transfer and co-production. Agreements with global leaders such as Thales, Navantia, Lockheed Martin, and Turkish defense firms (Baykar, Aselsan) cover critical capabilities spanning naval systems, unmanned aerial vehicles (UAVs), and advanced electronics.

### • UAE

The UAE shares the overarching goal of achieving strategic defense autonomy and enhancing sovereign capability under its Centennial 2071 vision. Central to this pursuit is fostering a resilient and innovative defense industrial base capable of supporting national security imperatives. The formation of the EDGE Group in 2019 marked a milestone in this journey. EDGE has become a global leader in precision-guided munitions, operating 25+ subsidiaries, employing over 12,000 personnel, and generating approximately USD 5 billion in annual revenue.

The UAE's institutional framework revolves around the Tawazun Council, which manages defense procurement and offset strategies aligned with localization goals. Initiatives such as the Tawazun Industrial Park provide infrastructure for domestic defense enterprises, while programs like "Sustain and Enhance Emiratization in Defense and Security" focus on developing a highly skilled Emirati workforce—an essential component of the UAE's long-term autonomy objectives.

International collaborations also reinforce these goals. Notably, the 2025 "Make it in the Emirates" trade show resulted in a landmark agreement with Thales to establish the first Ground Master radar production facility in

the MENA region. Additional cooperation between EDGE and Thales includes projects in electro-optic systems, AI, radar technology, and sovereign production capabilities valued at USD 500 million through 2027. These partnerships are integral to the UAE's vision of cultivating world-class defense manufacturing and technology sovereignty.

### 3. Defense Spending and Institutional Frameworks

#### 3.1 Defense Budgets and Spending Trends

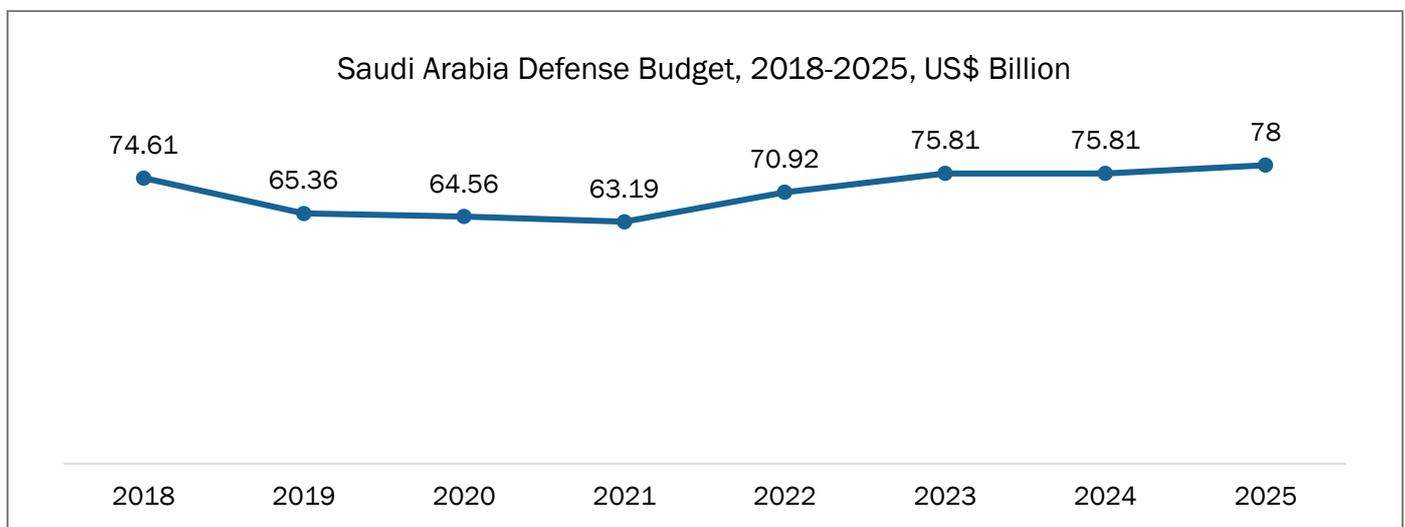
- Saudi Arabia

Saudi Arabia is the biggest military spender in the GCC region and is ranked seventh largest globally with a spending of USD 78 billion defence budget in 2025. The country's defense budget demonstrated a fluctuating trend between 2018 and 2023. Starting at USD 74.61 billion in 2018, the budget significantly declined to USD 63.19 billion by 2021, reflecting a cautious fiscal approach amid economic pressures such as oil price volatility and regional challenges.

From 2022, the defense budget began a strong recovery, increasing sharply to USD 70.92 billion, marking a robust year-on-year growth of 12.2% from 2021. This upward momentum continued into 2023, with the budget rising further to USD 75.81 billion, a 6.9% increase compared to the previous year. The budget is expected to hold steady at USD 75.81 billion in 2024 before reaching a six-year peak of USD 78 billion in 2025, which reflects a moderate increase of 2.9% from 2024 to 2025.

The defense budget's compound annual growth rate (CAGR) from 2018 to 2025 is a modest 0.5%, indicating a long-term strategic balance between fiscal prudence and defense capability enhancement. However, this aggregate figure masks contrasting phases: a negative CAGR of approximately -5.4% during the decline from 2018 to 2021, followed by a strong positive CAGR of around 5.7% during the recovery from 2021 to 2025. This shift highlights Saudi Arabia's renewed focus on defense modernization in recent years.

Figure 7. Saudi Arabia Defense Budget, 2018–2025, US\$ Billion

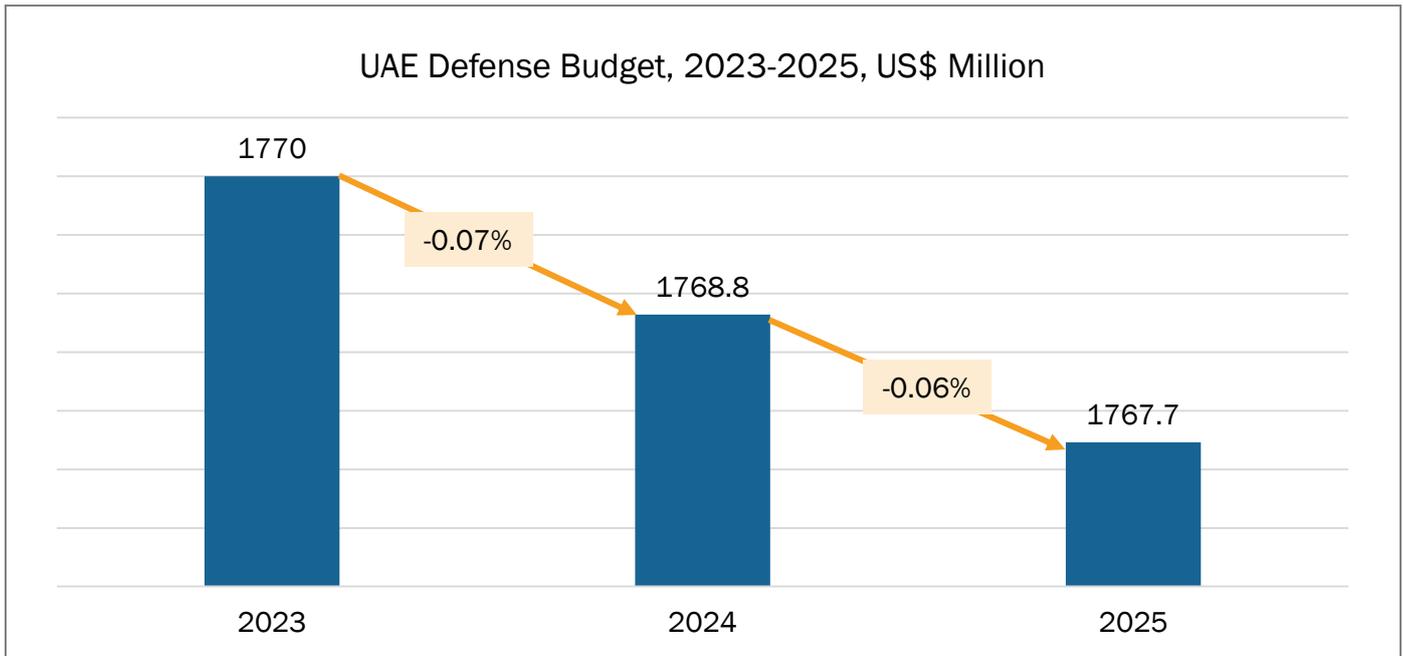


Source: General Authority for Military Industries, and World Bank Group

- UAE

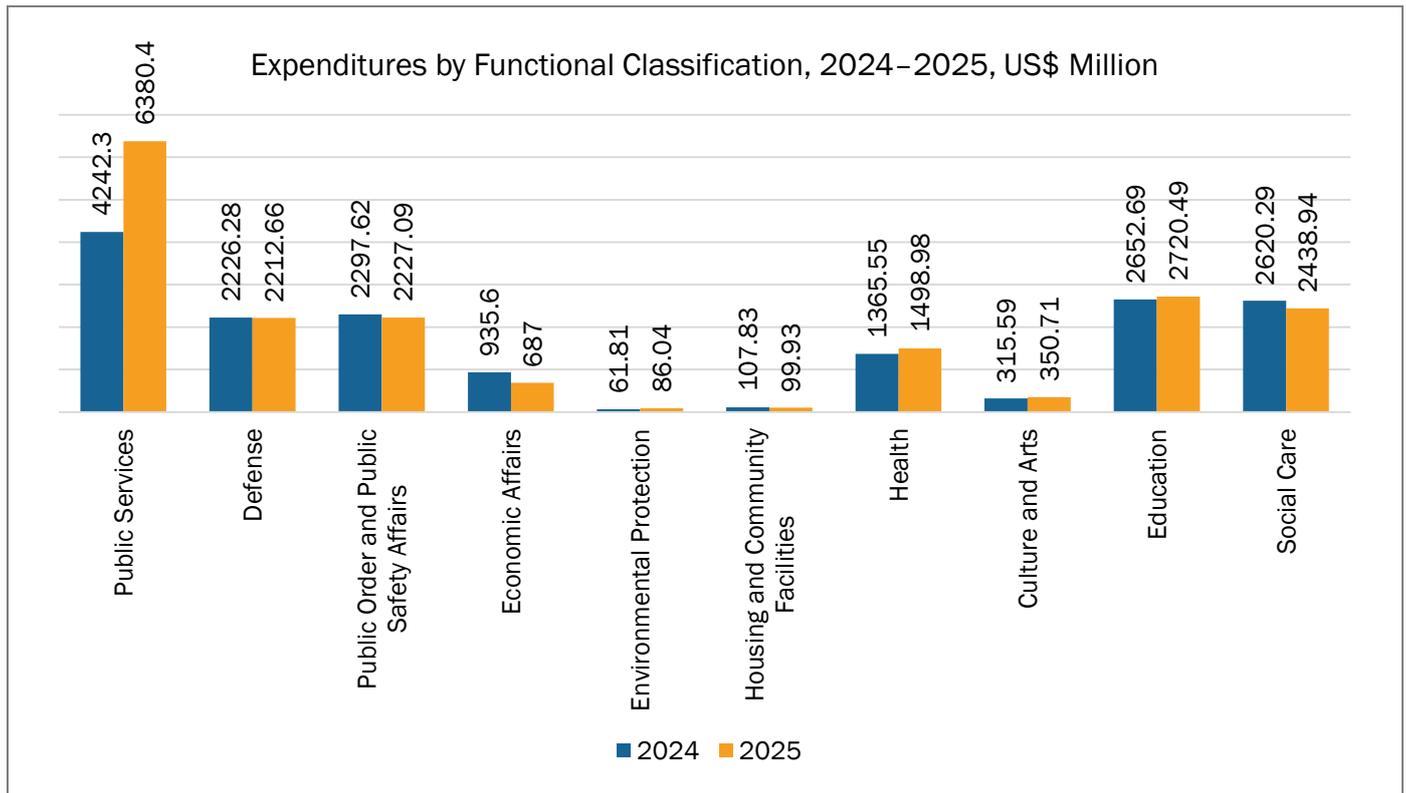
The UAE's defense budget for goods and services is expected to stay almost the same from 2023 to 2025. In 2023, the budget was US\$1,770 million, dropping only slightly to US\$1,768.8 million in 2024 and US\$1,767.7 million in 2025. This represents very small decreases of around 0.07% between 2023 and 2024, and 0.06% between 2024 and 2025. Overall, the budget declines by just 0.13% over the three years. This stable spending trend suggests that the UAE aims to maintain its current level of defense investment without major increases or cuts. It reflects a steady approach to defense planning, likely focusing on efficiency, cost control, and sustaining existing capabilities rather than expanding new programs.

Figure 8. UAE Defense Budget (Good and Services), 2023–2025, US\$ Million



Source: Federal General Budget Annual Report 2025

Figure 9. Expenditures by Functional Classification, 2024–2025, US\$ Million



Source: Federal General Budget Annual Report 2025

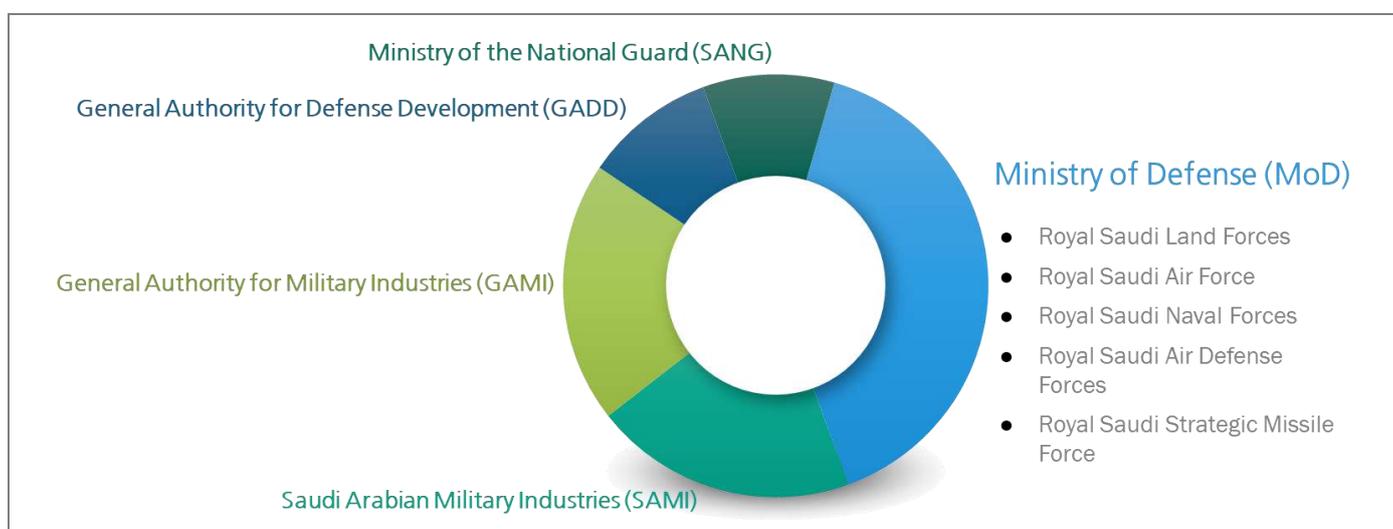
In 2024 and 2025, defense expenditure remains a key area of government focus, with approximately USD 2,226 million in 2024 and USD 2,213 million in 2025. Although there is a slight decrease of about 0.6% in expenditure from 2024 to 2025, the defense sector continues to receive significant funding, reflecting its ongoing importance in national security and strategic planning. Compared to other sectors, defense expenditure is among the highest, fifth after public services, education, social care and public order and public safety affairs, which experience a notable increase over the same period. The small reduction in defense expenditure suggests careful budget management without compromising critical military operations and infrastructure maintenance.

## 3.2 Key Ministries and Military Entities

### • Saudi Arabia

Saudi Arabia's defense structure is anchored by several pivotal institutions driving both governance and industrial transformation. The Ministry of Defense (MoD) commands the Kingdom's five armed branches: the Royal Saudi Land, Air, Naval, Air Defense, and Strategic Missile Forces. Central to the nation's defense industrialization efforts are GAMI and SAMI. GAMI formulates policy, issues licenses, and steers localization, aiming for 50% domestic defense spending by 2030. Meanwhile, SAMI, founded in 2017 under the PIF, operationalizes this vision by developing advanced capabilities across aerospace, land, sea, and electronics sectors. In addition, the General Authority for Defense Development aims to regulate, oversee, and supervise the research, development, and innovation sector in areas related to defense, military technologies and systems, and national security, define its objectives and priorities, and work to develop, stimulate, and localize its outputs.

Figure 10. Key Ministry and Military Entities in Saudi Arabia



Source: Gov.SA, SAMI, GAMI, SANG and Others

### 3.2.1.1 Governance and Procurement Systems

Saudi Arabia has established a centralized and modernized defense governance framework to support their long-term strategic objectives under Vision 2030. The Ministry of Defense (MoD) remains the primary authority responsible for defense policy and operational planning. However, the GAMI has emerged as the central regulatory body overseeing all aspects of the military industries sector, including licensing, industrial development, and procurement oversight. GAMI works closely with other key stakeholders, including the SAMI, the state-owned defense holding company tasked with developing domestic manufacturing, research and development, and international partnerships. This governance structure reflects Saudi Arabia's commitment to achieving greater strategic autonomy, defense self-sufficiency, and local industrial development.

GAMI collaborates closely with SAMI and other partners such as ELM Company (ELM), Military Industries Corporation (MIC), General Defense Corporation (GDC), and Taqnia to develop and advance capabilities across land systems, air systems, weapons and munitions, and defense electronics. The outputs from these efforts support a wide range of stakeholders, including Saudi academic institutions, local supply chains, international defense contractors, and economic offset companies, highlighting the integrated ecosystem driving Saudi Arabia's defense industry growth and localization goals.

Saudi Arabia's defense procurement system has undergone major reforms to enhance transparency, localization, and strategic alignment. GAMI is pivotal in standardizing procurement policies, aligning acquisition programs with national security priorities, and enforcing localization targets. A cornerstone of the reform is the ambition to localize 50% of defense expenditure by 2030, strongly emphasizing aerospace, UAVs, cybersecurity, and advanced defense systems. The procurement process increasingly involves offset agreements, joint

ventures, and partnerships with global defense OEMs to facilitate technology transfer and build indigenous capabilities. While notable progress has been made in streamlining procurement processes and encouraging private sector involvement, challenges persist regarding bureaucratic efficiency, talent development, and integration of local suppliers into global value chains.

- **UAE**

The UAE's defense architecture is underpinned by a structured mix of strategic ministries and industry-leading entities. The Ministry of Defence is the principal authority setting national defense policies, crafting future-oriented strategies, and enabling coordinated use of state capabilities in collaboration with international allies. Under their umbrella, the UAE Armed Forces consist of the Army, Navy, Air Force, Presidential Guard, Joint Aviation Command, and National Guard. On the industrial front, the Tawazun Economic Council manages procurement and offset programs for defense and security sectors, spearheading localization, supplier development, and budgeting under the national defense industrial strategy. The landmark creation of EDGE Group in 2019 consolidated over 25 defense and tech firms under one conglomerate.

- **Governance and Procurement Systems**

The UAE has established a highly coordinated and forward-looking defense governance model, integrating national security imperatives with industrial development. The Ministry of Defense oversees strategic and operational defense matters, while the Tawazun Economic Council is the central authority for defense industrial policy and procurement management. Tawazun is responsible for implementing the UAE's Defense and Security Development Fund and managing offset obligations, ensuring that foreign defense contracts contribute to domestic capability building. The EDGE Group, a state-owned defense conglomerate launched in 2019, consolidates multiple subsidiaries under a unified innovation-driven structure, focusing on emerging technologies such as autonomous systems, electronic warfare, aerospace platforms, and AI-enabled defense solutions.

The UAE's defense procurement system is characterized by their strategic foresight and emphasis on high-tech capability development. Procurement decisions are centralized and closely aligned with national innovation and industrial policies. Tawazun plays a critical role in guiding procurement investments toward sectors with high localization and export potential and facilitating partnerships with global defense companies. Defence procurement in the UAE is centrally coordinated through several federal-level agencies and specialized procurement bodies. The key government entities involved include:

Figure 11. Key Entities Involved in Procurements

Ministry of Defence	The principal authority responsible for national defence policy and the overarching procurement strategy.
General Command of the Armed Forces (GCAF)	Oversees the planning, acquisition, and management of defence capabilities for the UAE Armed Forces.
Armed Forces Procurement Office (AFPO)	Conducts technical evaluations and assessments in relation to defence procurement projects.
Focus Agencies of Interest	Two specialized entities are particularly relevant in the context of defence procurement, namely the Tawazun Council and the EDGE Group

Source: CEPA Council

### 3.3 Offset Programs and Localization Policies

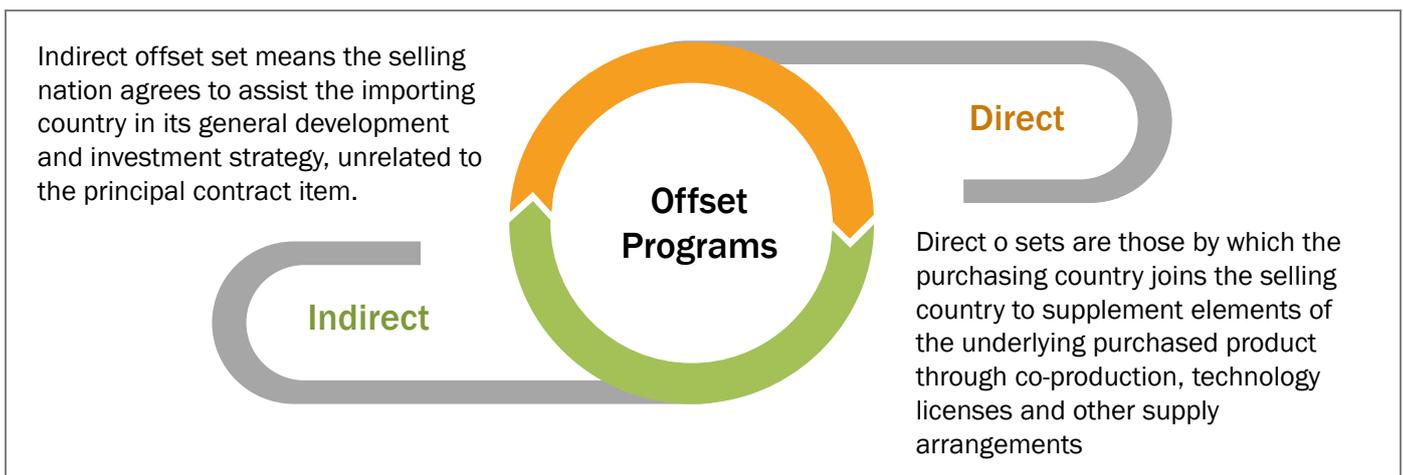
- Saudi Arabia

#### 3.3.1.1 Offset Programs

The Kingdom of Saudi Arabia has embraced a strategic offset policy as a cornerstone of its defense localization efforts under Vision 2030. The policy aims to transform defense procurement into a catalyst for national industrial growth, technology transfer, and economic diversification. These efforts are overseen by the GAMI, responsible for regulating and enabling the growth of the Kingdom’s defense and security sector, while ensuring that foreign suppliers contribute meaningfully to the local economy.

Saudi Arabia was the first country in the Gulf Cooperation Council (GCC) to introduce an offset-related investment program in 1984, collaborating with foreign contractors to build both technological capacity and human capital through structured technology transfer programs. The overarching goal of these offset programs is to enable the Kingdom to leverage foreign partnerships to gain advanced technologies, train local talent, and ultimately create high-value, technology-based jobs for Saudi nationals, thereby addressing unemployment and strengthening the national workforce.

Figure 12. Offset Programs Classification

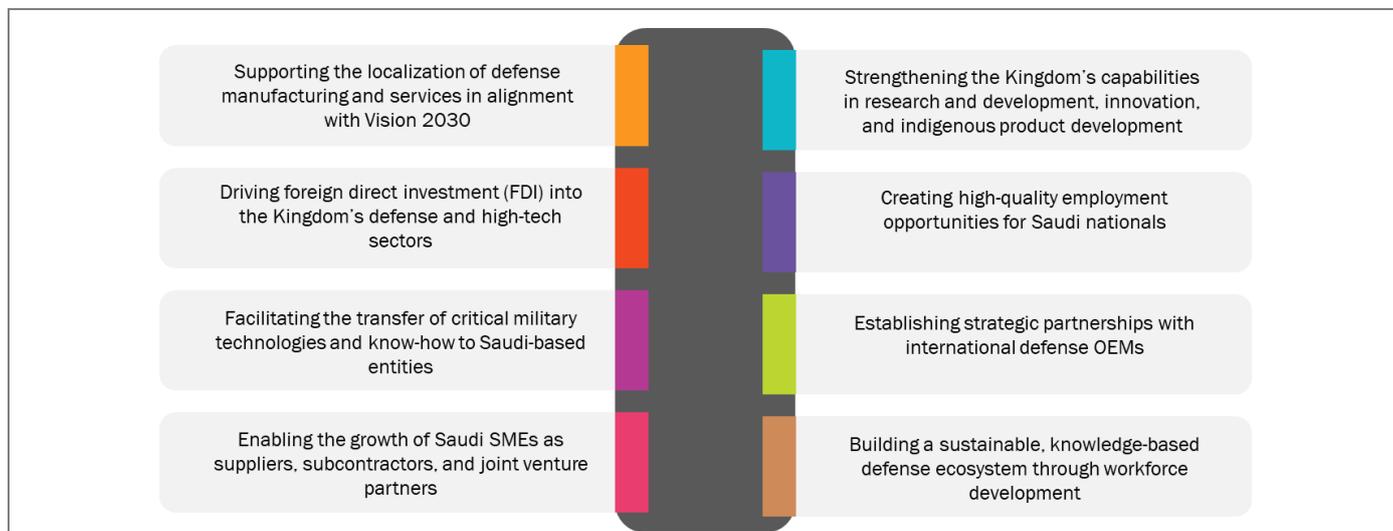


Source: Gulf Research Center, Arab News and Others

Saudi Arabia's offset framework is anchored by the Industrial Participation Program (IPP), launched by GAMI in 2019 as the successor to the Kingdom's earlier Economic Offset Program. The IPP is designed to drive deeper industrial and economic value from defense spending. Their objectives include expanding the local defense industrial base in value-added sectors, creating a robust technical support network, fostering strategic partnerships with international defense firms, facilitating technology transfer, and ensuring the inclusion of SMEs

in the defense supply chain. The IPP's key focus is the development of skilled national professionals equipped to work in highly specialized industries.

Figure 13. Objectives of the Saudi Arabia's Offset Program and IPP



Source: General Authority for Military Industries (GAMI)

Saudi Arabia's offset requirements apply to foreign defense contractors engaged in large-scale procurement deals that exceed a designated value threshold. These contractors are obligated to generate industrial and economic value in the Kingdom through joint ventures, establishing local production facilities, licensing arrangements, investments in research and development, or training and skills development initiatives. GAMI has also integrated the IPP with supply chain localization initiatives that align with broader economic goals. GAMI launched the Military Industries Marketplace to support investor participation, a digital platform that connects global OEMs with licensed Saudi manufacturers and service providers, enabling easier access to over 70 identified localization investment opportunities across defense and security sectors.

The Kingdom also offers a variety of offset models to facilitate defense localization:

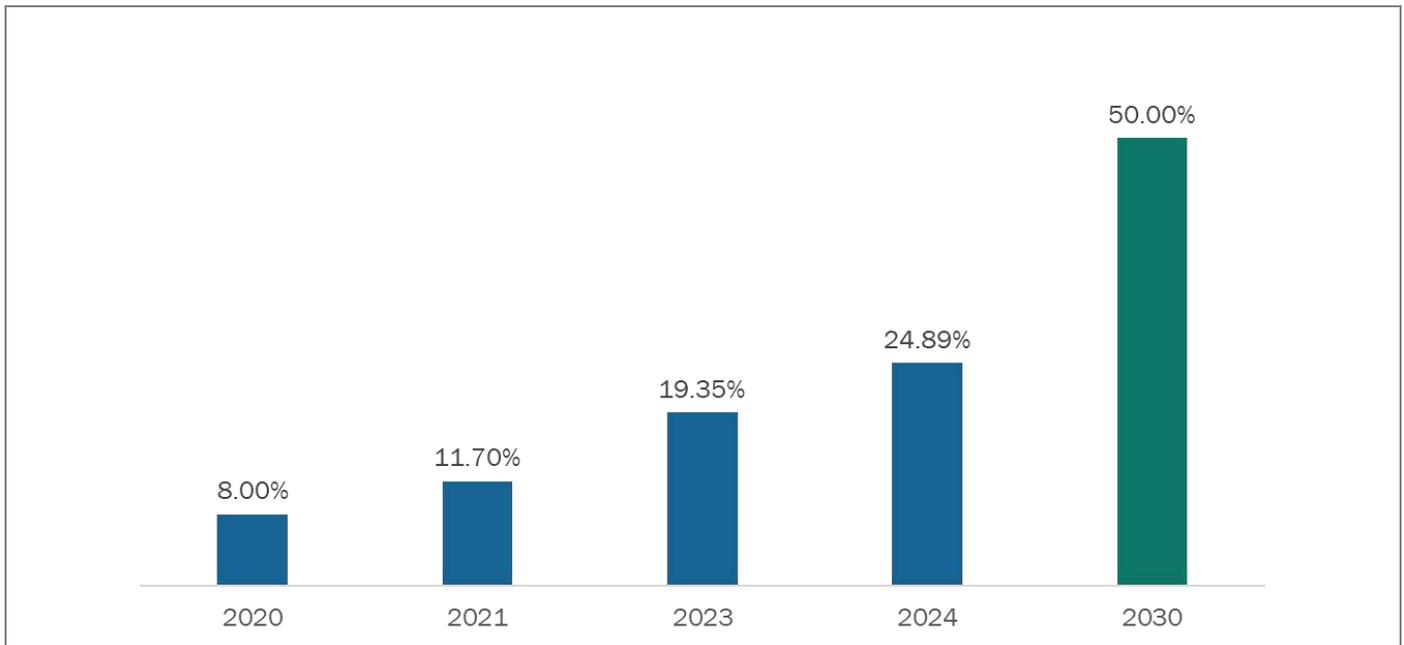
- **Co-production and overseas production agreements:** Foreign governments or producers provide technical knowledge, tooling, and manufacturing capabilities for defense contracts. This model emphasizes the use of local technology and research expertise, helping Saudi Arabia build indigenous manufacturing capabilities.
- **Directed sub-contracting:** This involves procuring domestically produced components for integration into items sold under existing contracts. It serves as an interim solution for SAMI, allowing local suppliers to gain experience and gradually scale their capabilities.
- **Technology transfers and licensed production assistance:** This approach enables local entities to acquire critical manufacturing knowledge and technology, supporting the establishment of sustainable defense industry capabilities and promoting a self-reliant national defense sector.

Collectively, these programs and models ensure that Saudi Arabia's defense procurement not only meets operational requirements but also contributes strategically to the development of a competitive and technology-driven domestic defense industry.

### 3.3.1.2 Localization

The Kingdom of Saudi Arabia has made remarkable progress in localizing their defense production with 24.89% localization by the end of 2024, up from just 8% in 2020. This significant growth is part of the Kingdom's ambitious target to reach 50% localization of government spending on military equipment and services by 2030, reflecting their strong commitment to building a self-reliant defense industry.

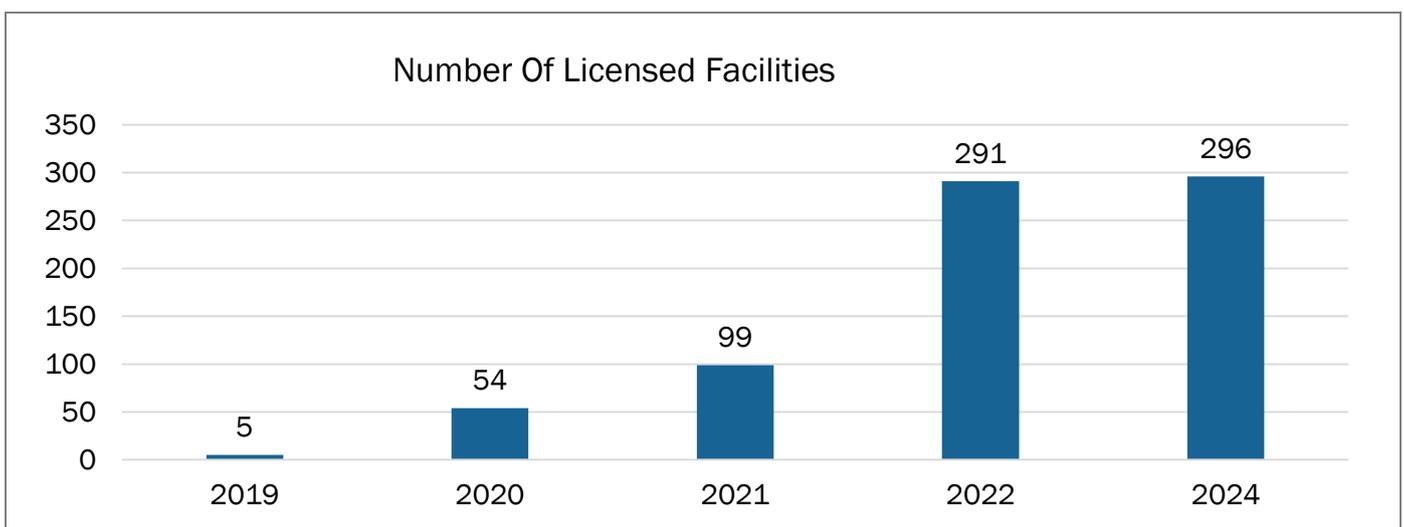
Figure 14. Percentage of Localization in Saudi Arabia Military Industries Sector (Completed and Targeted)



Source: The General Authority for Military Industries (GAMI)

The number of licensed defense facilities in Saudi Arabia has shown strong and consistent growth over the past few years, reflecting the Kingdom's successful progress in defense localization under Vision 2030. The number of licensed entities increased from just 5 in 2019 to 54 by the third quarter of 2020, and further to 99 in the first half of 2021. By the third quarter of 2024, this figure surged to 296 licensed facilities. This rapid growth highlights the expanding participation of both local and international companies in Saudi Arabia's defense industry, supported by proactive government policies, industrial partnerships, and initiatives led by GAMI to build a sustainable and competitive defense ecosystem.

Figure 15. Number Of Licensed Facilities in Defense Sector



Source: The General Authority for Military Industries (GAMI), data of 2024 till Q3

Figure 16. Achievements Through Localization Policies

The General Authority for Military Industries (GAMI) is the driving force behind Saudi Arabia's localization strategy. Since its establishment in 2017, GAMI has launched over 70 targeted localization opportunities across six key defense and security sectors, including aerospace, naval, land systems, weapons, electronics, and cyber security.

According to GAMI reports, more than 296 licensed and authorized establishments operate within the military industries sector as of Q3 2024, a sharp increase from just 5 licensed facilities in 2019, reflecting rapid sector expansion.

In 2022, GAMI approved two key initiatives to localize the production of interceptor missile launch platforms and missile containers. These projects are part of localizing the Terminal High Altitude Area Defense (THAAD) system in partnership with Lockheed Martin Saudi Arabia Ltd., enhancing the Kingdom's air defense capabilities.

In collaboration with the Ministry of Defense, GAMI has successfully localized the production of the "HSI32" fast interceptor boat. This vessel, manufactured to modern global standards, is a product of a partnership between the French company CMN Naval and the Saudi firm Zamil Offshore. Another significant collaboration involves a localization and capabilities development agreement between the Middle East Propulsion Company and US-based Honeywell, focusing on repairing, maintaining, and overhauling "AGT1500" engines.

In line with empowering investors, GAMI launched the "Military Industries" digital platform, which connects investors to localization opportunities and licensed industrial capabilities within the sector. This platform facilitates partnerships between local and international companies, including original equipment manufacturers (OEMs), streamlining access to investment opportunities as they arise.

The Saudi defense sector's localization push is expected to contribute over USD 3.7 billion annually to the national economy by 2030, creating thousands of high-skilled jobs aligned with Vision 2030's economic diversification goals.

Source: Press Releases, Annual Reports, Newsletters and Ministries Websites

- UAE

### 3.3.1.3 Offset Programs

The UAE has strategically leveraged defense procurement to drive national industrialization and economic diversification through their offset policy, formally known as the Tawazun Economic Program (TEP). Administered by the Tawazun Economic Council, the program ensures that foreign defense contractors reinvest a portion of large-scale defense contracts into the UAE economy. This approach transforms defense spending into a tool for achieving broader socio-economic goals such as technology transfer, industrial development, knowledge creation, and Emiratisation.

Figure 17. Objectives of the Tawazun Economic Program



Source: US-UAE Business Council

TEP enforces offset requirements on defense contractors that sell or supply goods and services—either directly or indirectly—to the UAE government, provided the contract meets a certain value threshold over a defined period. These contractors are required to generate offset credits equivalent to a percentage of the contract's value. Offset credits can be earned through various means, including investments, engaging UAE-based suppliers or manufacturers through work packages, or transferring knowledge, technology, and capabilities to local entities or Emirati nationals. The Tawazun Economic Council (TEC) oversees and facilitates this process in close collaboration with defense firms.

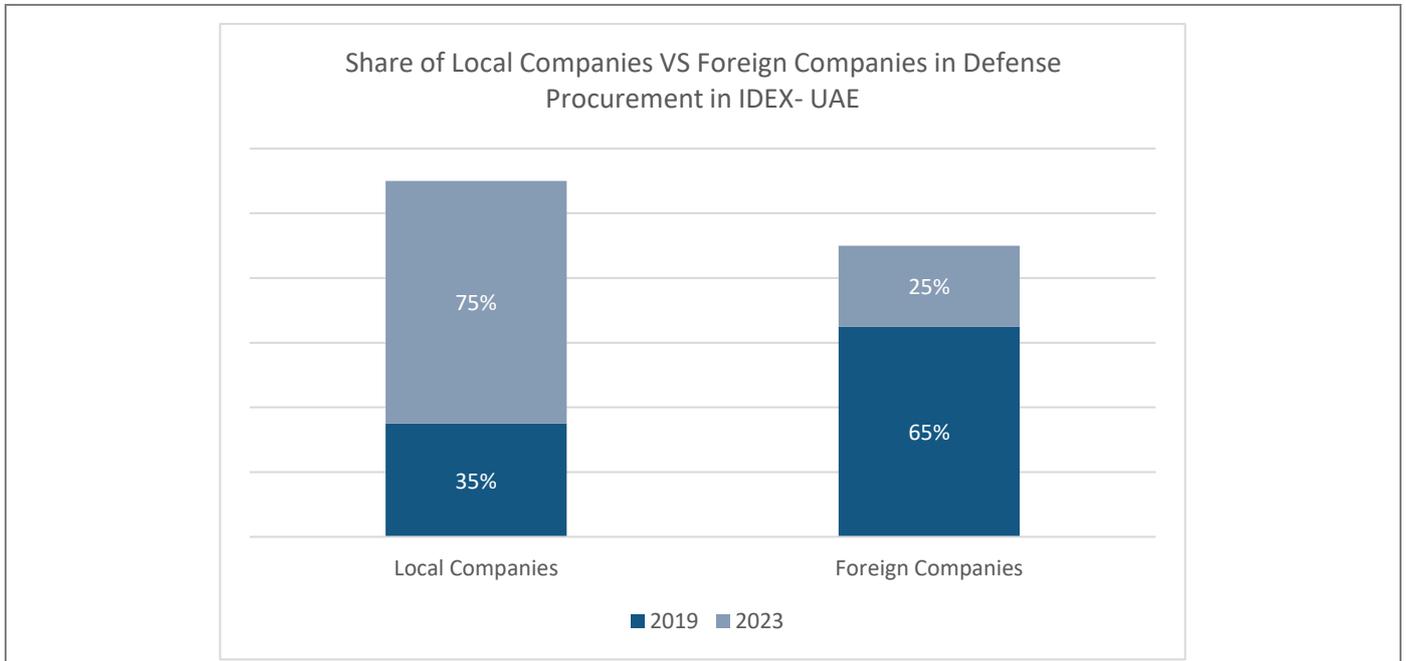
### 3.3.1.4 Localization Policies

In recent years, the UAE has embarked on a bold and comprehensive strategy to develop their domestic defense industry. This initiative serves not only as a step toward achieving strategic self-reliance but also as a cornerstone of the country's broader economic diversification and sustainable growth ambitions. The UAE's approach skillfully blends security priorities, technological innovation, and economic advancement amid evolving regional dynamics and global security challenges.

As part of their defense modernization, the UAE continues to invest significantly in cutting-edge capabilities and emerging technologies. Key focus areas include air defense systems, intelligence, surveillance and reconnaissance (ISR) platforms, artificial intelligence (AI), and autonomous systems, demonstrating the nation's commitment to maintaining a leading edge in defense innovation. The country's localization efforts are driven by a strong emphasis on building a resilient national defense industrial base. A prime example is the SkyKnight system, developed through a strategic partnership between the UAE's EDGE Group and Germany's Rheinmetall. This short-range air defense system, designed domestically to counter unmanned aerial threats, highlights the UAE's ability to fuse international expertise with local innovation. Such projects reinforce the UAE's vision of strengthening their sovereign defense capabilities while promoting sustainable technological independence. This commitment also enhances international confidence in the UAE's defense market.

The share of contracts awarded to foreign companies by Tawazun Council (the authority responsible for defense procurement) declined from around 65% at IDEX 2019 to 25% at IDEX 2023. Conversely, the share awarded to local companies increased from 35% to 75% over the same period. This sharp growth reflects the country's strong progress in defense localization and industrial development under its national strategy to enhance self-reliance and reduce dependence on foreign suppliers

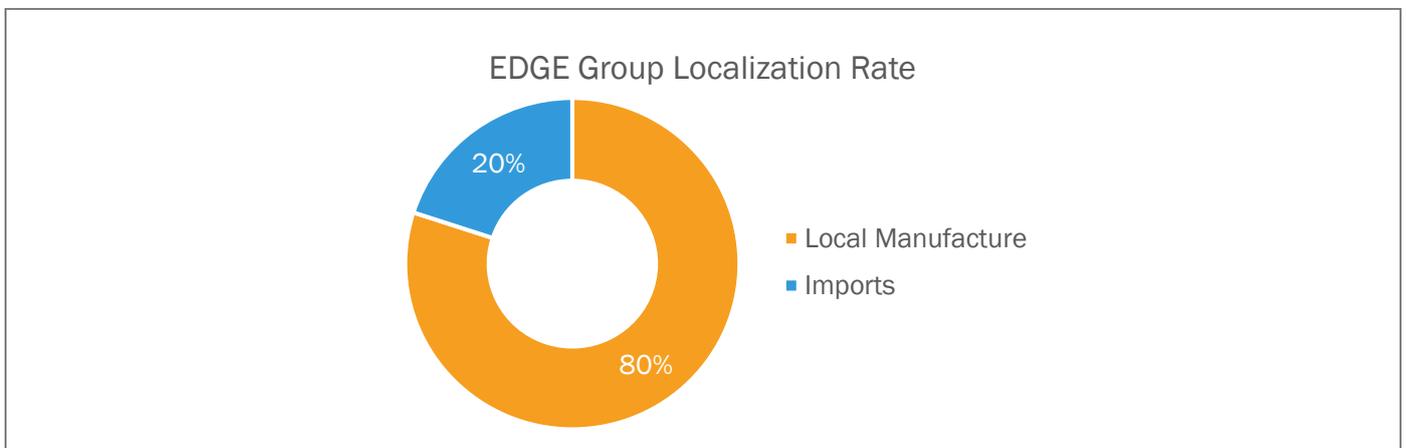
Figure 18. Share of Local Companies VS Foreign Companies in Defense Procurement in IDEX- UAE



Source: Gulf International Forum and International Defence Exhibition & Conference

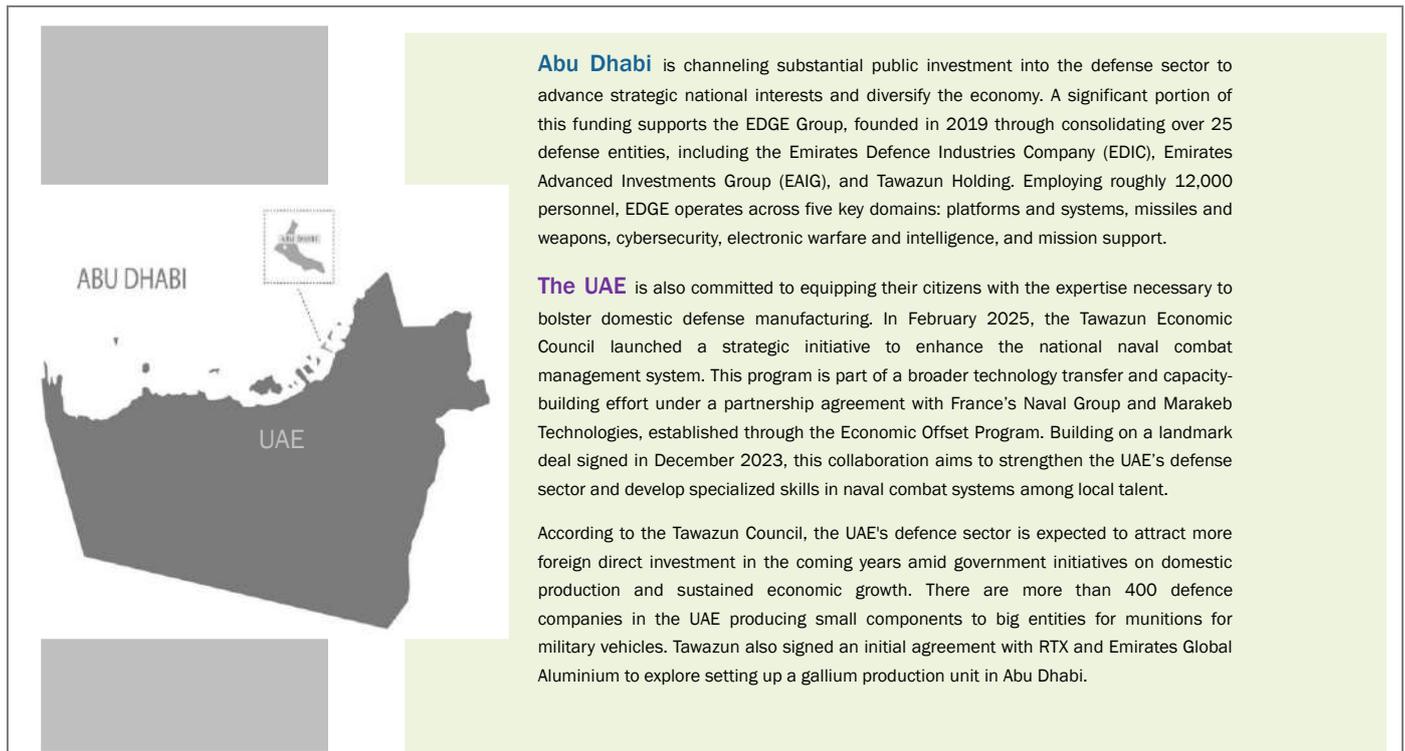
EDGE Group continues to demonstrate its leadership in advancing the UAE's sovereign defense industry and strengthening localization across the sector. As of 2025, over 80% of EDGE's 220+ products are manufactured locally across 170 facilities, underscoring the UAE's growing self-reliance in defense production. This achievement is supported by more than 65 Industry 4.0 initiatives, which have enhanced production capacity by up to 100%, improved storage efficiency by 70%, and increased product quality by over 40%. EDGE is also investing heavily in workforce development and Emiratisation. Its award-winning Learning & Innovation Factory has trained more than 4,000 individuals, resulting in an 84% increase in Emirati manufacturing roles and a 143% rise in Emirati technicians, building national expertise in advanced defense technologies

Figure 19. EDGE Group Localization



Source: EDGE Group UAE

Figure 20. Localization Policies Statistics



Source: US-UAE Business Council

Some of the initiatives taken by the Tawazun Council to support Offset Programs and Localization Policies in UAE are:

- In May 2025, Tawazun Council and Thales Group signed of an agreement to support and empower 20 certified local suppliers within the "Your Destination UAE" project, with business packages worth AED 600 million. The agreement was announced during the fourth edition of "Make in UAE 2025" in Abu Dhabi.
- In July 2025, The Tawazun and the Advanced Technology Research Council (ATRC) signed a cooperation agreement aimed at strengthening the UAE's research, development, and innovation ecosystem, supporting the development of advanced technology capabilities in the defense and security sectors.
- In May 2025, During the fourth edition of "Made in UAE 2025," Tawazun Council and Airbus announced the strengthening of their strategic partnership by launching a national program to develop industrial capabilities in the aerospace sector. The program aims to manufacture and supply configurable fuel tanks (CCRTs) in collaboration with EPI, a subsidiary of EDGE Group

## 4. Defense Industry Development

### 4.1 National Champions

Table 1. National Champions

Aspects	Saudi Arabian Military Industries (SAMI)	Emirates Defence Group (EDGE)
Year Founded	2017	2019
Overview	SAMI represents the Kingdom of Saudi Arabia's flagship state-owned defense company, established under the GAMI umbrella. SAMI's core mission is to localize 50% of Saudi Arabia's military spending by 2030, supporting Vision 2030's economic diversification and strategic autonomy goals	Emirates Defence Group (EDGE) is the UAE's premier state-owned defense conglomerate, established to consolidate and elevate the UAE's defense industry under a unified umbrella. EDGE is a strategic enabler of the UAE's national defense ambitions and Vision 2031 goals, focusing on technological innovation, localization, and self-reliance in defense manufacturing and services
Focus Area	SAMI operates through its five main sector units: <ul style="list-style-type: none"> <li>• Aviation and Space</li> <li>• Defense Systems</li> <li>• Advanced Electronics</li> <li>• Land Systems</li> <li>• Marine Systems</li> </ul>	EDGE functions through a diversified portfolio sector unit: <ul style="list-style-type: none"> <li>• Platforms and Systems:</li> <li>• Missiles and Weapons</li> <li>• Cybersecurity</li> <li>• Electronic Warfare and Intelligence</li> <li>• Mission Support</li> </ul>
Goals	SAMI is targeting a contribution of over SAR 14 billion to the national GDP, increasing the value of Saudi defense exports to SAR 5 billion, and creating more than 40,000 direct job opportunities in engineering and high-tech fields, alongside over 30,000 indirect jobs.  The company also plans to foster the growth of small and medium-sized enterprises (SMEs) and invest upwards of SAR 6 billion in scientific research and development	EDGE aspires to position the UAE as a global leader in the defense sector by fostering indigenous innovation and localization of military technologies.  EDGE targets to become the top 25 global defense supplier by 2030, aligned with the UAE's broader national strategies for economic diversification and strategic autonomy
Subsidiaries	<ul style="list-style-type: none"> <li>• SAMI CMI Defence Systems</li> <li>• SAMI L3HARRIS Technologies</li> <li>• Aircraft Accessories and Components Company (AACC)</li> <li>• Advanced Electronics Company (AEC)</li> </ul>	<ul style="list-style-type: none"> <li>• Adcom Systems (specializing in UAVs and advanced systems)</li> <li>• Nimr Automotive (armored vehicles)</li> <li>• ADASI (advanced ISR platforms)</li> <li>• Halcon Systems (missile systems)</li> <li>• Yahsat (satellite communications)</li> <li>• Others</li> </ul>

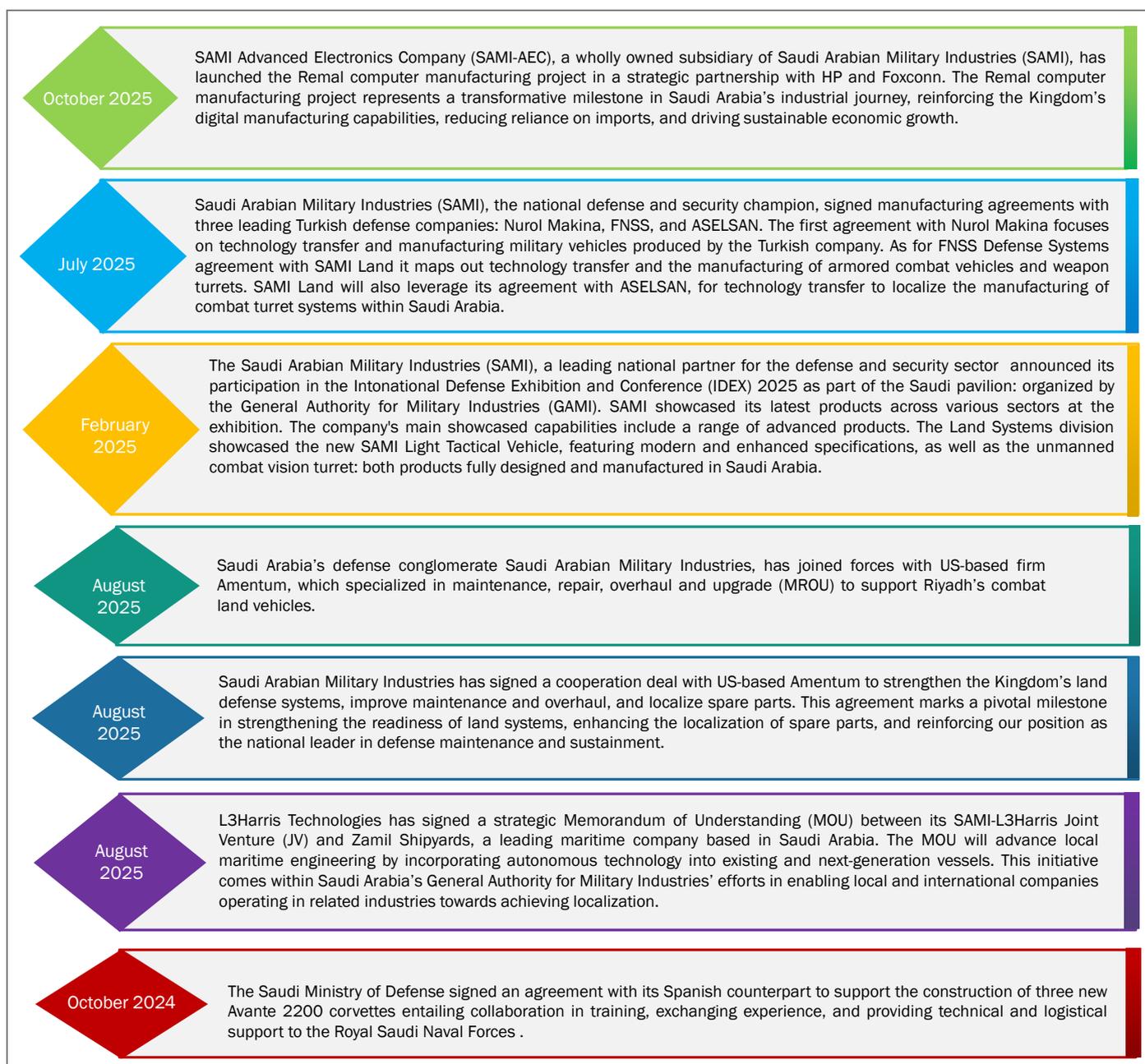
Source: Saudi Arabian Military Industries (SAMI), EDGE Group

## 4.2 Local Manufacturing and Assembly Capabilities

### • Saudi Arabia

Saudi Arabia has embarked on a transformative journey to localize defense manufacturing and assembly capabilities, and the strategic objective of localizing 50% of defense spending by the end of 2030. Central to this effort are the GAMI and SAMI, which spearhead the development of indigenous industrial capabilities across land, air, sea, and cybersecurity domains.

#### 4.2.1.1 Key Activities



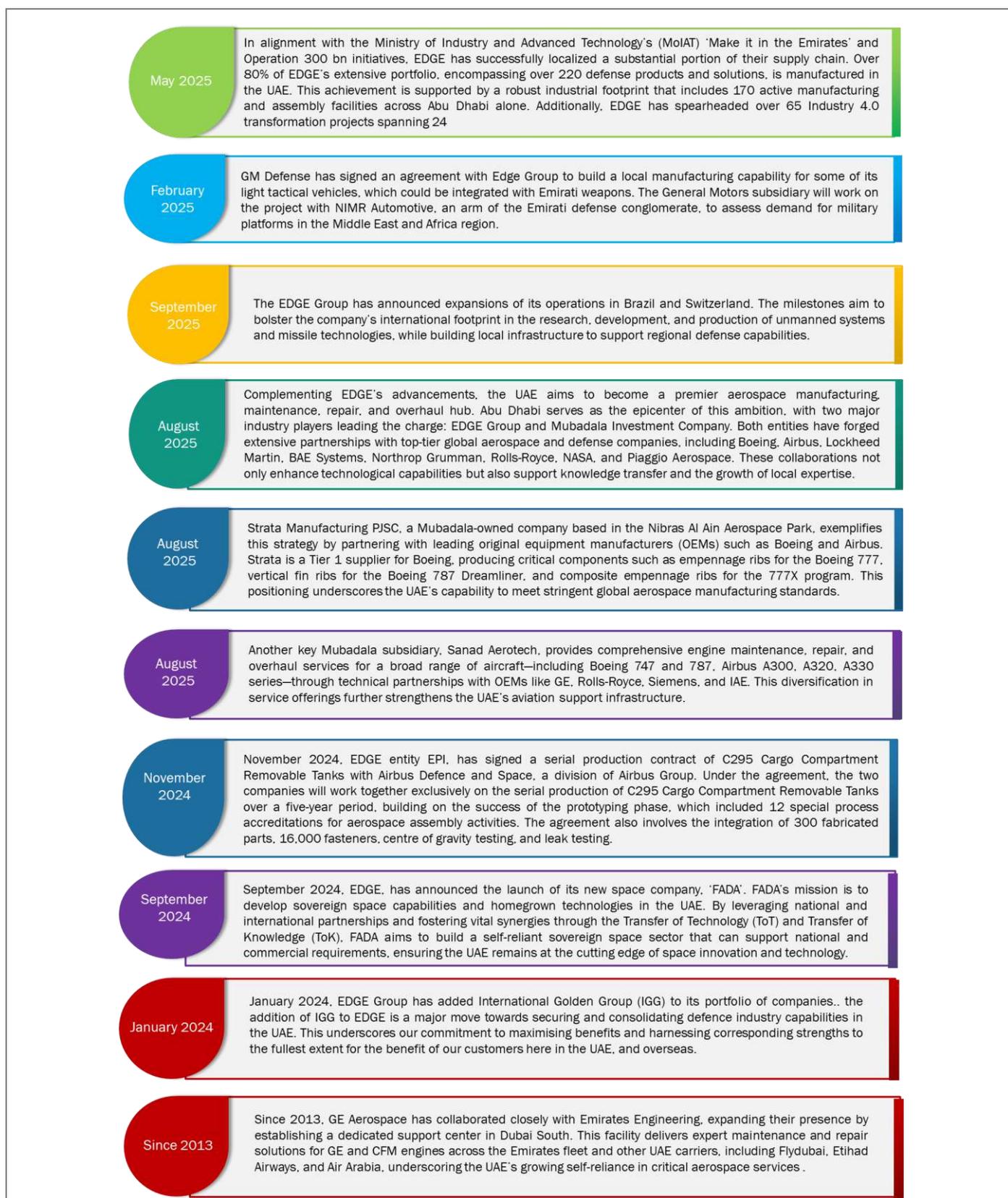


*Source: Saudi Arabian Military Industries (SAMI), Saudi Ministry of Defense and Others*

- **UAE**

The UAE has made significant strides in building robust local manufacturing and assembly capabilities in the defense sector, positioning itself as a regional and increasingly global hub for defense production. At the core of these efforts is EDGE Group, which consolidates more than 25 specialized subsidiaries across five key clusters, offering end-to-end defense manufacturing solutions, from design and prototyping to full-scale production and MRO (maintenance, repair, and overhaul) services. For instance,

## 4.2.1.2 Key Activities



Source: EDGE Group and Others

### 4.3 Joint Ventures, Licensing, and Technology Transfer

- Saudi Arabia

Table 2. Joint Ventures, Licensing Agreements, And Technology Transfer Initiatives

Year	Development	Description
Jul 2025	SAMI Signs 3 Localization Deals with Turkish Defense Firms	SAMI has signed three major agreements with leading Turkish defense manufacturers. These deals aim to localize land systems production within the Kingdom. Signed during IDEF 2025 in Istanbul, the SAMI Turkish defense agreements signal Saudi Arabia's intent to fast-track their defense industrial development. The SAMI Turkish defense agreements are a strategic move aligned with Vision 2030's localization mandate. SAMI's goal is to become a global leader in land systems while achieving national autonomy in defense technologies.
April 2025	L3Harris and SAMI Joint Venture Sign Agreement with Zamil Shipyards to Advance Autonomous Maritime Capabilities in the Kingdom of Saudi Arabia	L3Harris Technologies has signed a strategic Memorandum of Understanding (MOU) between their SAMI-L3Harris Joint Venture (JV) and Zamil Shipyards, a leading maritime company based in Saudi Arabia. The MOU will advance local maritime engineering by incorporating autonomous technology into existing and next-generation vessels. This initiative comes within Saudi Arabia's GAMI efforts in enabling local and international companies operating in related industries towards achieving localization.
Nov 2024	SAMINavantia Launches New HAZEM Lite CMS for Vessels with Low and Medium Warfare Capabilities	SAMINavantia, the joint venture between SAMI and the Spanish company Navantia, announcing the development of the new Combat Management System (CMS) "HAZEM Lite", tailored for low and medium warfare vessels, as well as vessels with space restrictions. According to the release, HAZEM Lite can be used and installed on new ships or integrated into the existing systems of modern vessels. It is one of the latest technologies in combat systems, derived from the HAZEM CMS, but has been specifically designed for smaller vessels, ensuring that it retains the essential features of the original HAZEM system, including providing an open, scalable, customizable, and interoperable solution that is proven effective and robust.
Dec 2024	India and Saudi Arabia are Exploring Joint Ventures in the Defense Sector	India and Saudi Arabia enhance defence cooperation by focusing on joint ventures and industrial collaboration to localise defence production. Saudi Arabia signed a US\$250 mn contract for ammunition from Munitions India Limited, a Defence Public Sector Undertaking.
Feb 2024	South Korea, Saudi Arabia sign agreement on defence cooperation	South Korea and Saudi Arabia signed a memorandum of understanding to expand defence cooperation. The agreement will see the two establish a joint committee to form a working group for weapons systems research and development, as well as production, to continue defence cooperation.
Mar 2022	Chinese and Saudi firms create a joint venture to make military drones in the kingdom	Advanced Communications and Electronics Systems Co. signed an agreement with China Electronics Technology Group Corp., with the two companies announcing their tie-up during the World Defense Show in Riyadh. The joint venture, Aerial Solutions, will see CETC establish a research and development center and create a team to manufacture different types of UAV systems. These include communications, flight-control, camera, radar, and wireless-detection systems.
April 2022	PIF-owned SAMI strikes a venture with Boeing to grow the Saudi defense industry	The Public Investment Fund-owned defense group SAMI signed a preliminary agreement with the Boeing Company to boost military manufacturing in Saudi Arabia, one of the aims of PIF and the Kingdom's Vision 2030 reform plan. The preliminary agreement supports PIF's strategic sector of Aerospace and Defense and initiative

Year	Development	Description
		to grow the domestic industry, including military systems and equipment, parts, components, and maintenance, repair, and operations (MRO) services. This reflects the aim, under Saudi Arabia's Vision 2030 plan, to localize over 50 percent of military equipment spending by 2030.
Feb 2021	SAMI Launches Joint Venture with L3Harris Technologies	SAMI has successfully launched a new joint venture (JV) with L3Harris Technologies, one of the world's largest aerospace and defense systems manufacturers. Initially focusing on the localization of L3Harris' advanced communication and sensor products, the JV scope will expand to include prime contractor responsibilities for integrated mission systems and platforms, leveraging robust local industry partnerships.
Oct 2021	GAMI and SAMI sign Contract for "SkyGuard" UAV	The GAMI signed a Contract with SAMI for the development and manufacture of the "SkyGuard" UAV. The strategic objective of this signing lies in building a leading foundational base for technological innovation, both regionally and internationally. SAMI also signed an Agreement with Prince Sultan Defense Studies and Research Center (PSDSARC), with the objective of further developing the UAV.

Source: Saudi Arabian Military Industries (SAMI), General Authority for Military Industries and Others

- UAE

Table 3. Joint Ventures, Licensing Agreements, And Technology Transfer Initiatives

Year	Development	Description
June 2025	EDGE and Leonardo Forge Strategic Joint Venture in Abu Dhabi	EDGE Group, a leading advanced technology and defence entity, and Italian aerospace and defence giant Leonardo have announced a joint venture (JV). This strategic partnership aims to create a cutting-edge technology hub within the UAE, poised to cater to global markets with a unified and synergistic approach. The newly conceived joint venture is anticipated to be a landmark in international defence cooperation, encompassing a broad spectrum of domains and integrating some of the most advanced and sophisticated technologies available.
Jul 2025	India, UAE agree to elevate defence ties	India and the UAE reaffirmed their commitment to strengthening bilateral defence cooperation during the 13th India-UAE Joint Defence Cooperation Committee (JDCC) meeting. The two sides agreed to elevate defence ties to match the growing momentum in trade, investment, and social relations.
August 2025	Strategic defence industry partnership with the United Arab Emirates	4iG Space and Defence Technologies joins EDGE Group to develop high-tech defence solutions. One of the agreements outlines a comprehensive framework for technology and knowledge transfer, while the other two focus on joint development, localisation, and market introduction of specific defence systems – including UAVs, counter-UAS (C-UAS), air defence and command-and-control solutions.
May 2025	U.S.-UAE Major Defense Partnership	The United States Secretary of Defense signed a Letter of Intent (LOI) to establish a comprehensive U.S.-UAE Major Defense Partnership. As part of this partnership, the Secretary announced a new strategic initiative between the U.S. Defense Innovation Unit (DIU) and the UAE's Tawazun Council. This collaboration will deepen ties in defense innovation, facilitate joint research and development, and expand industrial and investment partnerships across defense ecosystems.
Feb 2025	ELT Group and EDGE Group Explore Potential Establishment of a	EDGE Group, one of the world's leading advanced technologies and defence groups, and ELT Group, a global leader in the development of innovative technologies for electromagnetic spectrum and cyberspace applications,

Year	Development	Description
	Joint Venture in the UAE	have signed a Memorandum of Understanding (MoU) to assess the potential for a future joint venture based in the United Arab Emirates.
March 2025	UAE defense giant EDGE Group joins forces with French firm CMN NAVAL	UAE defense giant EDGE Group has launched an Abu Dhabi-based joint venture (JV) with French shipbuilding firm CMN NAVAL-dubbed AD NAVAL (ADN), to manufacture small- and mid-size naval vessels. Leveraging an existing order pipeline worth approximately USD 8.20 billion, the JV will bring together both companies under an exclusive agreement on the segment of high-value small to mid-size naval vessels, including Corvettes, Offshore Patrol Vehicles (OPVs), High-speed Interceptors, Trimarans, and Landing Craft.
July 2025	EDGE and Pavo Group Launch Joint Venture, KEY4	EDGE, one of the world's leading advanced technologies and defence groups, and Pavo Group, an Istanbul-based technology company specialising in defence and security, public safety, communications, and digital technologies, have launched KEY4, a groundbreaking joint venture in critical defence and security technologies. KEY4 will serve as a platform for the joint development of advanced defence and security solutions supporting both UAE priorities and global partner needs.
July 2025	Thales Signs Agreement with Edge on Defense Technology in UAE	Thales signed a MoU with Edge, an advanced-technology group headquartered in Abu Dhabi, to produce and maintain advanced electro-optic systems. The agreement intends to strengthen the sovereign defense capabilities of the UAE and localize key technologies through sustainable in-country industrial solutions.

Source: EDGE Group, and Others

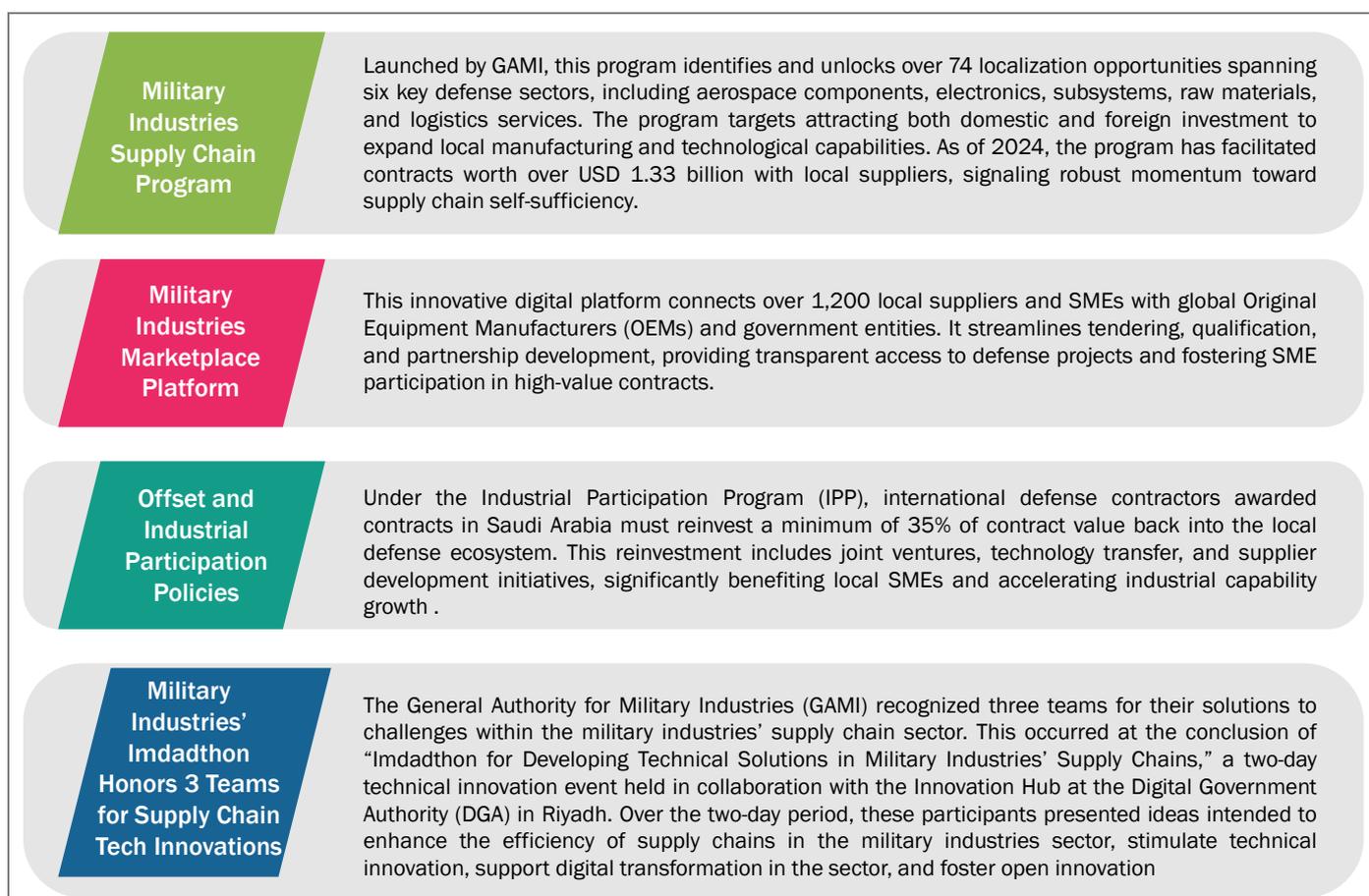
#### 4.4 Supply Chain Development and SME Integration

- **Saudi Arabia**

Saudi Arabia has made supply chain localization and SME (small and medium enterprise) integration a cornerstone of their defense industrialization strategy under Vision 2030. The GAMI is leading this transformation with a focus on reducing dependency on foreign suppliers, expanding local content, and creating a competitive, self-sufficient defense supply base.

The General Authority for Military Industries (GAMI) reports that localization in the military-industries sector reached 24.89% of total defense expenditure by end 2024, up from about 8% in 2020. GAMI's target is to localize more than 50% of defense equipment and services spending by 2030. Through its "Localizing the Sector" programme, GAMI is enabling investment, licensing and supplier-network development in the Kingdom. For example, GAMI mentions that the number of licensed military-industry establishments has increased (to 296 by 2024) and that supply-chain projects accounting for USD 3.47 billion in local purchases have been initiated in 2024. This includes the production of locally manufactured drones for field operations, sustainability companies for various defense systems, and the manufacturing of fast interceptor boats.

Figure 21. Saudi Arabia Key Initiatives for Supply Chain and SMEs



Source: Saudi Arabian Military Industries (SAMI), General Authority for Military Industries and Others

Saudi Arabia's defense supply chain is entering a new phase of maturity, shifting from reliance on imported systems to the creation of an integrated and technology-enabled ecosystem. According to the General Authority for Military Industries (GAMI), future development will focus on deepening industrial integration between local suppliers and global defense manufacturers through structured investment programmes and supplier-readiness initiatives. GAMI's approach is to expand the supplier base across multiple tiers — from raw-material providers to component assemblers and system integrators — ensuring that every layer of the value chain is locally anchored. The introduction of platforms such as the Military Industry Marketplace and regular supplier-engagement programs are designed to connect small and medium-sized enterprises (SMEs) with international original equipment manufacturers (OEMs). This will enable faster supplier certification, technology transfer, and enhanced coordination between manufacturing, logistics, and sustainment functions.

## 4.4.1.1 SME Enablement

Figure 22. Saudi Arabia SME participation Outlook



Source: Saudi Arabian Military Industries (SAMI), General Authority for Military Industries and Others

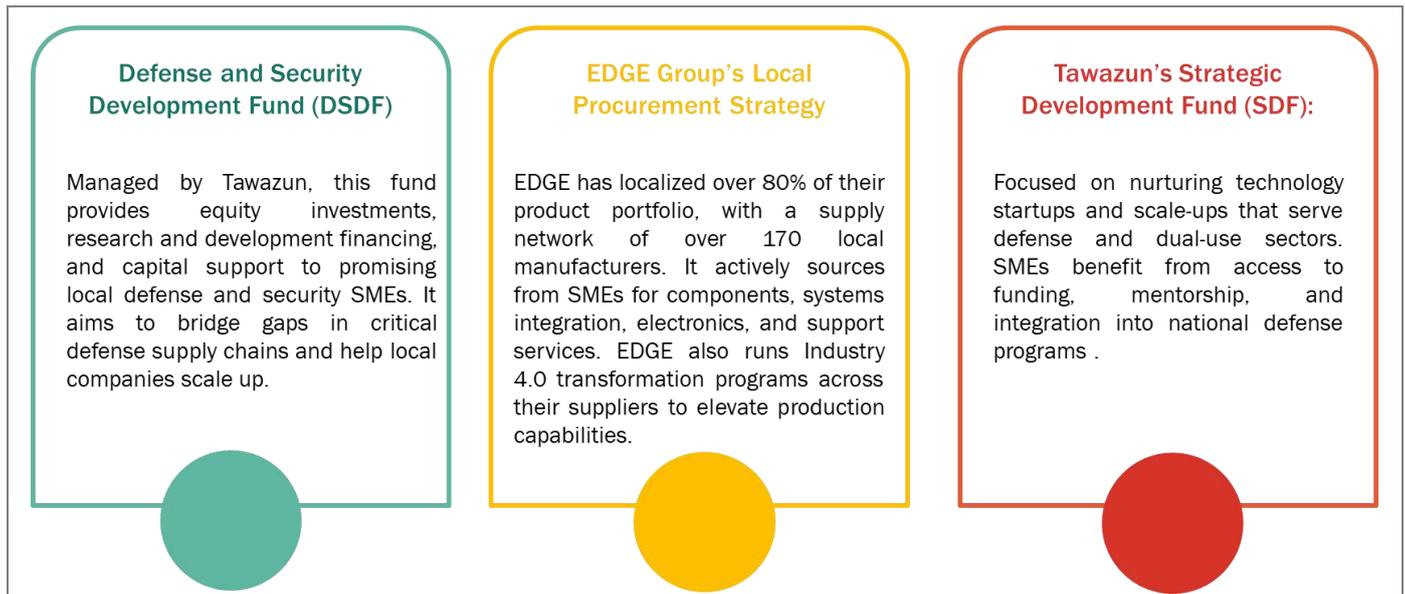
Saudi Arabia's strategic focus on supply chain localization and SME integration is set to significantly strengthen the logistics capabilities of its defense sector, creating a more agile, resilient, and responsive support system for military operations. By developing a broad base of local suppliers and SMEs across key defense supply chain segments—including aerospace components, electronics, subsystems, raw materials, and logistics services—the Kingdom reduces its dependency on lengthy and complex international supply lines. This localization shortens procurement cycles and minimizes risks related to geopolitical disruptions, transport delays, or global supply chain shocks, ensuring timely availability of critical parts and services.

- UAE

The UAE has developed one of the most structured approaches to supply chain development in the MENA region, with SME integration at the heart of their "Make it in the Emirates" and Operation 300bn strategies. The Tawazun Economic Council is pivotal in connecting global defense primes with UAE-based suppliers and accelerating industrial capacity growth.

The EDGE Group states that over 80% of its 220+ products and solutions are now manufactured in the UAE. Moreover, the Tawazun Council reports that by 2030 the UAE aims to increase domestic defense expenditure as a proportion of total defense spending from about 10% to 30%, thus promoting localization and supply-chain development.

Figure 23. UAE Key Initiatives



Source: EDGE Group and Ministries Website

The UAE is steadily transforming its defense supply chain into a globally competitive, innovation-driven network. The EDGE Group, under the oversight of the Tawazun Council and the Ministry of Industry and Advanced Technology (MoIAT), is leading this evolution by expanding advanced manufacturing, smart production systems, and digital integration across its industrial footprint. EDGE's ongoing transition to Industry 4.0 — supported by national initiatives like Operation 300bn — signals a move from traditional assembly and procurement toward intelligent manufacturing and data-driven supply-chain management. The UAE is positioning itself as a regional supply-chain hub for defense and aerospace products, leveraging its advanced logistics infrastructure and free-zone capabilities. This strategy is reinforced by collaboration between defense manufacturers, financial institutions such as the Emirates Development Bank (EDB), and industrial regulators to offer financing, certification, and technology-adoption support for suppliers. The UAE's defense supply chain will also become increasingly digital and interconnected.

## 5. The Aviation, Aerospace Sector

### 5.1 Military Aviation Capabilities and Procurement

- **Saudi Arabia Military Strength, 2025**

Saudi Arabia maintains the largest air force in the Gulf region and is undergoing an aggressive modernization and localization campaign under Vision 2030. According to the World Directory of Modern Military Aircraft, Saudi Arabia is ranked 24th out of the 145 countries considered for 2025. The nation holds a PwrIndx score of 0.4201 (The PwrIndx (Power Index) score is a comparative military strength indicator developed by Global Firepower, which evaluates a nation's overall military capabilities based on over 60 factors, including manpower, equipment, logistics, and geography.)

#### 5.1.1.1 Active Aircraft Inventories in Saudi Arabia

As of 2025, Saudi Arabia's military aviation inventory reflects a well-structured and diversified air force capable of supporting various operational roles. With 917 aircraft, the fleet includes 283 fighter jets, forming the backbone of the Royal Saudi Air Force's offensive and defensive capabilities. The presence of 81 dedicated attack aircraft and 34 attack helicopters further strengthened their strike potential for close air support and precision missions. The 264 helicopters provide critical versatility for troop transport, medevac, and logistical operations. In contrast, 49 fixed-wing transport aircraft and 22 aerial tankers enable long-range mobility and extended mission endurance. Additionally, 202 trainer aircraft support pilot development and readiness, and 16 special mission aircraft enhance surveillance, reconnaissance, and electronic warfare capabilities.

Figure 24. Active Aircraft Inventories in Saudi Arabia, 2025



Source: World Directory of Modern Military Aircraft and Global FirePower

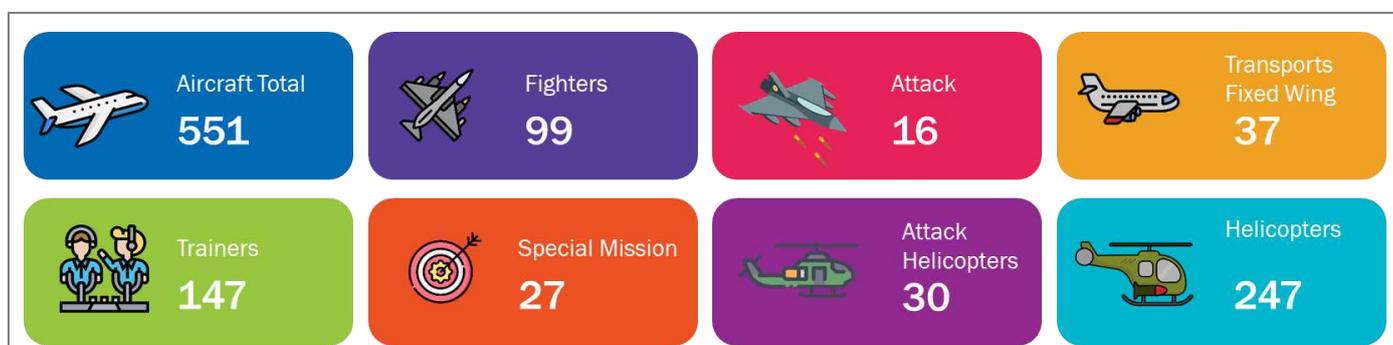
- **UAE Military Strength**

The UAE has strategically positioned itself as a regional leader in military aviation by acquiring advanced combat systems, early warning aircraft, and air defense platforms. Their modernization program is complemented by a strong push to localize defense production, supported by entities such as the Tawazun Council and EDGE Group. According to the World Directory of Modern Military Aircraft, the UAE is ranked 54th of the 145 countries considered for the annual GFP review in 2025. The nation holds a PwrIndx score of 1.0186.

#### 5.1.1.2 Active Aircraft Inventories in the UAE

As of 2025, the UAE maintains a modern and agile military aviation fleet comprising 551 aircraft, focusing on flexibility, rapid response, and technology-driven operations. The inventory includes 99 fighter jets, which form the core of the country's air combat capabilities, alongside 16 dedicated attack aircraft and 30 attack helicopters that enhance tactical strike operations. The helicopter fleet, totaling 247 units, plays a critical role in mobility, logistics, and special operations—accounting for nearly half of the total air inventory. The UAE also fields 37 fixed-wing transport aircraft and 4 aerial tankers, providing logistical support and operational reach. A significant portion of the fleet—147 trainer aircraft—indicates sustained investment in pilot training and skill development. Additionally, 27 special mission aircraft are in service for surveillance, intelligence, and electronic warfare.

Figure 25. Active Aircraft Inventories in UAE, 2025



Source: World Directory of Modern Military Aircraft and Global FirePower

## 5.2 Civil Aerospace and MRO Infrastructure

- **Saudi Arabia**

#### 5.2.1.1 Civil Aerospace

Saudi Arabia's civil aerospace sector has grown substantially in recent years, positioning the Kingdom as a key player in the global aviation industry. According to the General Authority for Statistics' Air Transport Statistics Publication 2024, passenger traffic through Saudi airports reached 128 million, reflecting a 15% increase from 2023. International passenger traffic reached 69 million, an increase of 14% compared to 2023. Domestic passenger traffic also rose by 16%, totaling 59 million passengers in 2024.

King Salman International Airport, currently under development in Riyadh, is expected to open by 2030 and aims to become the world's largest airport, with a projected capacity of 185 million passengers annually by 2050. Other major airports have also experienced significant growth. In 2024, King Abdulaziz International Airport in Jeddah handled 49 million passengers, marking a 14% increase, while Riyadh's King Khalid International Airport served 37.6 million passengers, reflecting an 18% growth. King Fahd International Airport in Dammam also saw a 15% rise in passenger traffic, accommodating 12.8 million passengers.

Figure 26. Civil Aerospace Statistics 2024



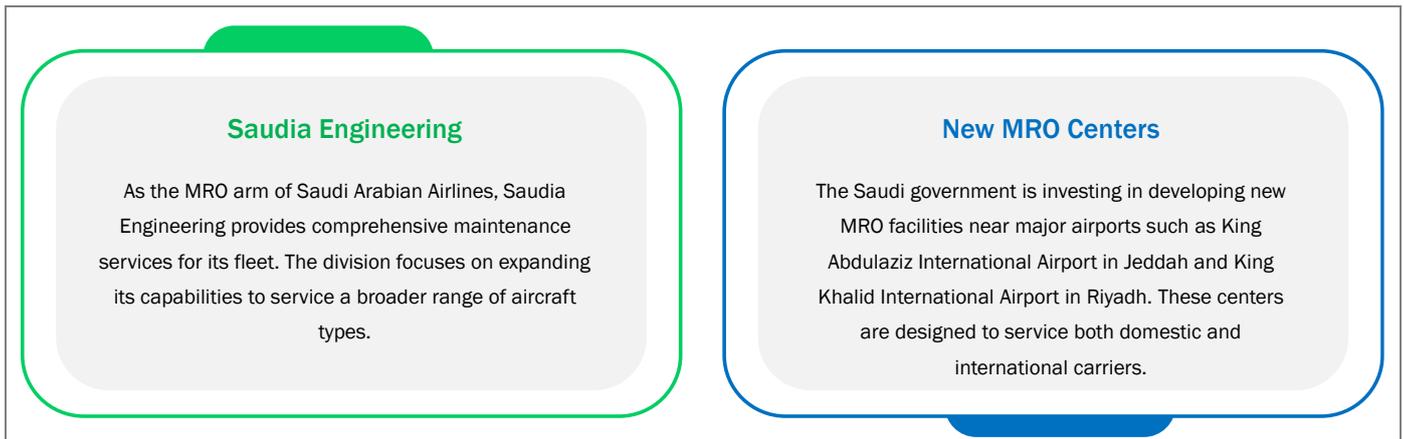
Source: Civil Aviation Authority

#### 5.2.1.2 MRO Infrastructure

Saudi Arabia is actively expanding their Maintenance, Repair, and Overhaul (MRO) infrastructure as part of their Vision 2030 initiative, aiming to enhance the country's aviation sector and reduce dependency on foreign MRO services.

- The MRO (Maintenance, Repair & Overhaul) infrastructure in Saudi Arabia is rapidly expanding and evolving from nascent capability toward a more robust, sovereign industrial base:
- The Public Investment Fund (PIF) has invested in Saudi Technic (formerly Saudi Aerospace Engineering Industries) to build a dedicated "MRO village" of approximately 1 million m<sup>2</sup> in Jeddah. This will include a jet-propulsion centre, increased hangar capacity, component shops and engine test cells.
- The Ministry of Industry & Mineral Resources has issued new industrial licenses for aircraft maintenance, repair and overhaul services (covering drones, electronic systems, full overhaul) in collaboration with the General Authority for Military Industries (GAMI) and the General Authority of Civil Aviation (GACA) in 2025.
- A mobile MRO base by Saudi Technic has been unveiled, designed to perform on-site repair for helicopters, military aircraft and advanced air mobility assets. This adds flexibility and responsiveness beyond the fixed-facility hangars.
- The country is aligning MRO infrastructure development with its broader aerospace/defense industrialization goals (via Vision 2030, localization efforts, supplier ecosystem build-out). For example, an MoU with Leonardo covers airframe MRO, electronics, helicopters and supply-chain development.

Figure 27. Key MRO Facilities



Source: Saudi Arabian Airlines

- UAE

### 5.2.1.3 Civil Aerospace

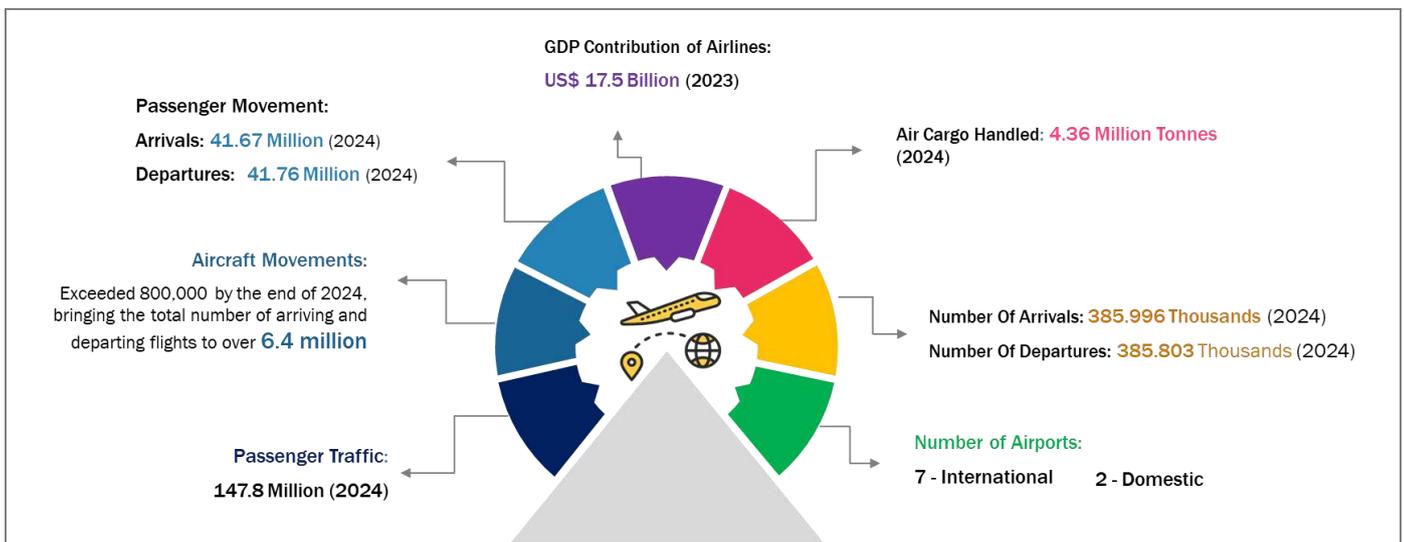
The UAE's aviation sector continued to play a vital role in its economy, contributing approximately US\$ 17.5 billion to GDP in 2023. Passenger movement remained robust, with arrivals reaching about 41.67 million and departures close behind at 41.76 million in 2024. This reflected the UAE's status as a leading global hub for air travel, supported by its strategic location and well-developed airport infrastructure.

In 2024, the UAE handled significant air cargo volumes, with around 4.36 million tonnes processed, reinforcing its role as a major transit and logistics center. The country operated 9 airports, including 7 international and 2 domestic airports, ensuring extensive connectivity.

The number of aircraft arrivals and departures was balanced, with approximately 386 thousand arrivals and 386 thousand departures recorded in 2024. This active aircraft movement supported more than 800,000 total aircraft movements during the year, highlighting the intensive use of the UAE's airspace and airport facilities.

Passenger traffic reached about 147.8 million in 2024, indicating strong demand across both international and domestic routes. This underscored the UAE's growing importance as a global passenger and cargo hub, supported by continued investments in expanding airport capacity and modernizing aviation infrastructure.

Figure 28. Civil Aerospace Statistics



Source: Ministry of Economy & Tourism, United Arab Emirates

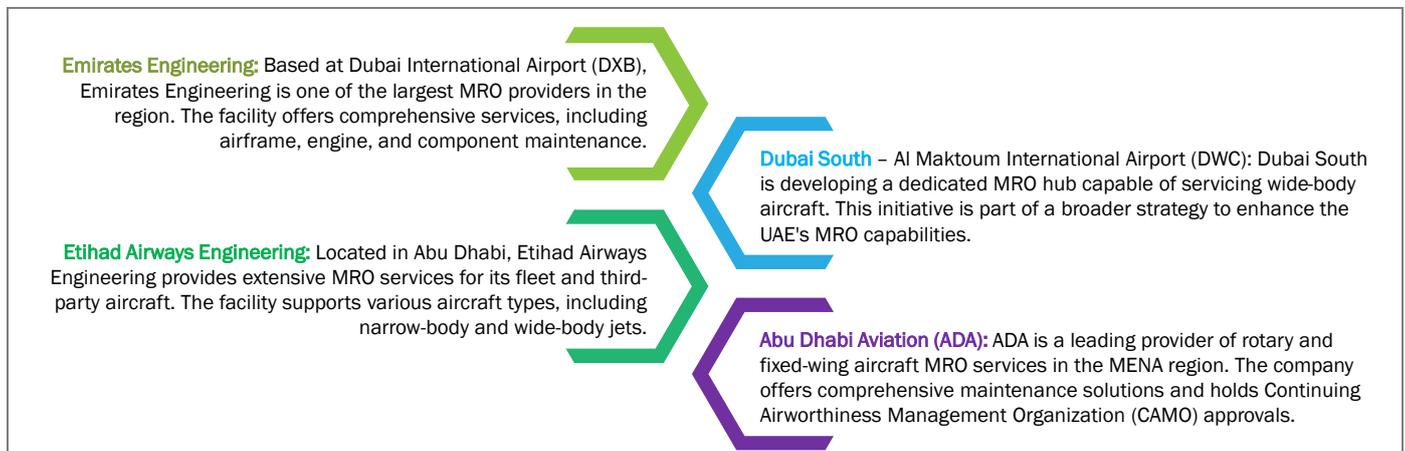
### 5.2.1.4 MRO Infrastructure

The UAE has developed a robust Maintenance, Repair, and Overhaul (MRO) infrastructure, positioning itself as a regional leader in aviation maintenance services. This development is supported by significant investments in facilities and a strategic location facilitating access to global markets.

The UAE already hosts advanced MRO infrastructure and is consolidating its position as a regional hub for aviation & defense MRO services:

- The Advanced Military Maintenance, Repair and Overhaul Center (AMMROC), based in Al Ain, is one of the largest military MRO facilities in the region. It features multi-purpose hangars, 30+ support shops, dedicated facilities for fixed- and rotary-wing aircraft, and full depot-level capabilities.
- A new engine-MRO facility (in partnership between the Tawazun Council and Mubadala Investment Company) has been announced in Al Ain, in collaboration with Pratt & Whitney.

Figure 29. Key MRO Facilities



## 5.3 Space Programs and Satellite Initiatives

### • Saudi Arabia

Saudi Arabia has accelerated their ambitions in space exploration and technology development as part of their Vision 2030 framework. The Kingdom aims to leverage space technology to drive innovation, national security, and economic diversification. Saudi Arabia's space program focuses on satellite development, space science research, and regional cooperation in space technology.

Figure 30. Space Missions and Satellite Initiatives in Saudi Arabia

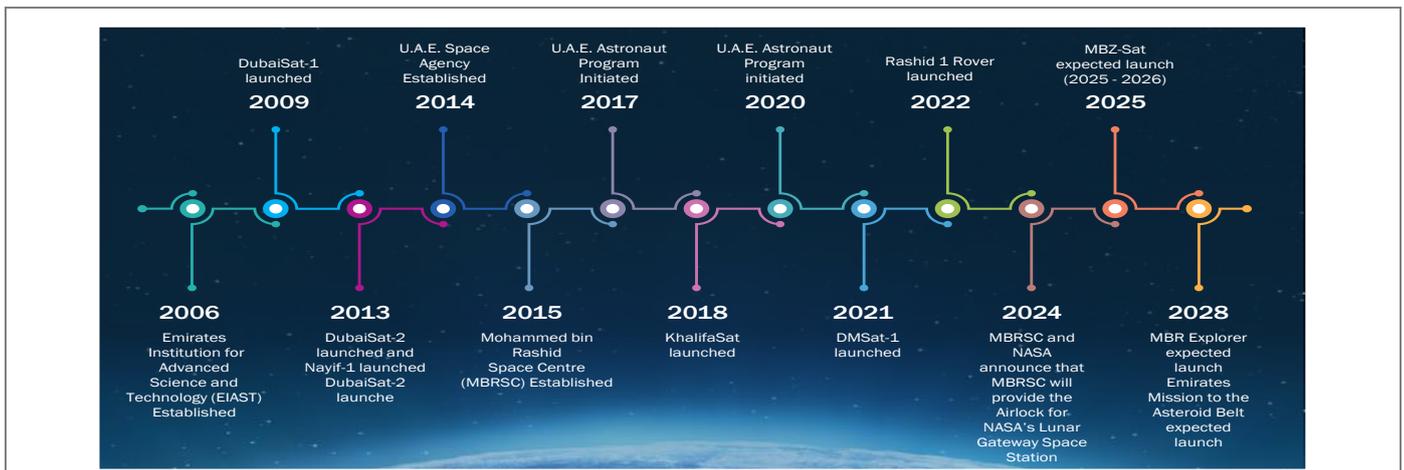


Source: Saudi Space Agency

• UAE

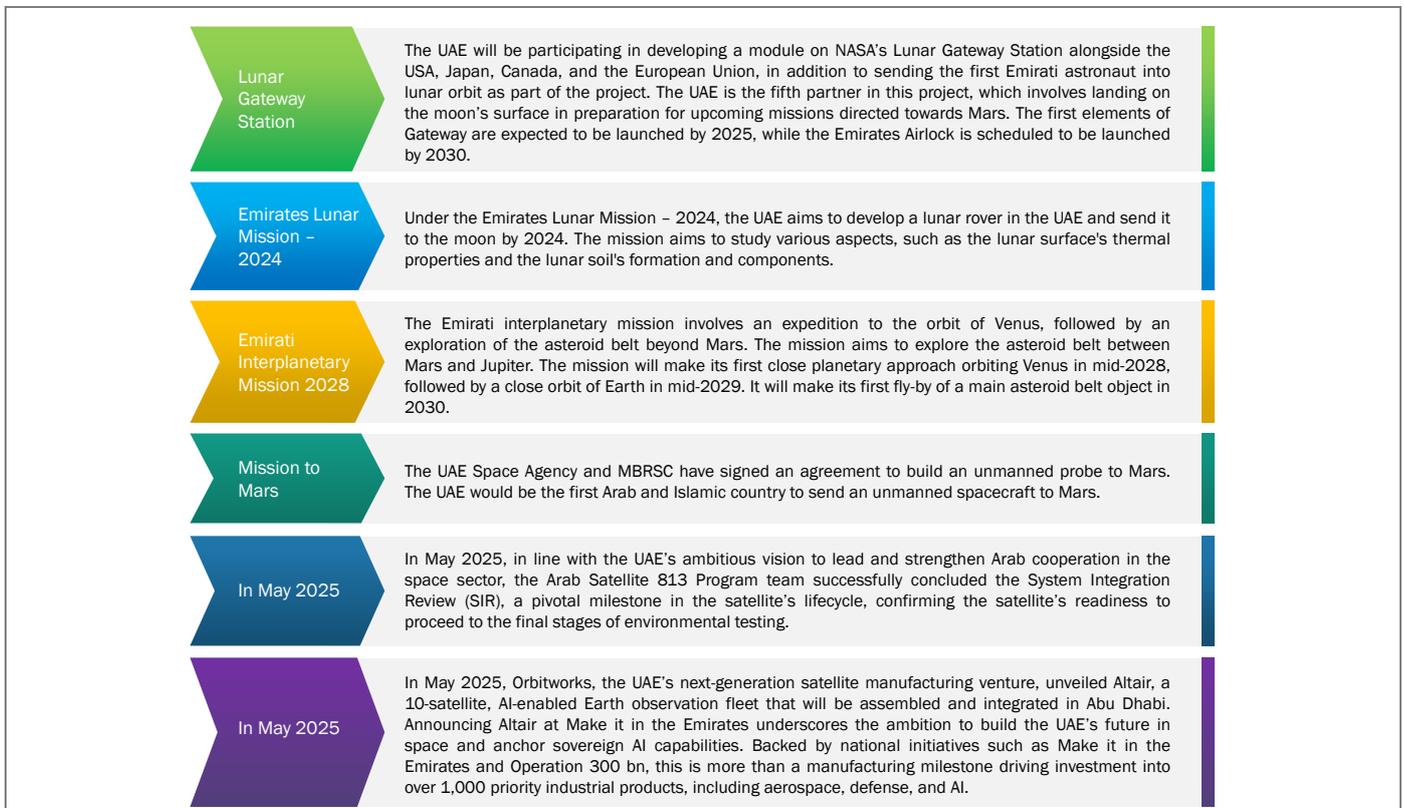
The UAE has rapidly positioned itself as a leading spacefaring nation in the Middle East, driven by ambitious government initiatives and investments to develop indigenous space capabilities. Since the launch of the UAE Space Agency in 2014, the country has focused on advancing space science, satellite technology, and interplanetary exploration as part of their broader vision for economic diversification and technological innovation.

Figure 31. UAE Space Program Timeline



Source: United Arab Emirates Government (U.ae)

Figure 32. Space Missions and Satellite Initiatives in the UAE



Source: United Arab Emirates Government (U.ae)

5.4 UAE Space Agency and Saudi Space Commission Initiatives

- **Saudi Space Commission**

Launched in 2018, the Saudi Space Commission (SSC) is a central pillar of the Kingdom's Vision 2030 initiative, aimed at diversifying their economy beyond oil and creating a sustainable knowledge-based society. The SSC seeks to build indigenous capabilities while fostering international cooperation in aerospace and space sciences.

Table 4. Saudi Space Commission Initiatives

Year	Development	Description
January 2025	Saudi space agencies launch competition to develop innovative space-based solutions	In partnership with Neo Space Group, the Communications, Space and Technology Commission and the Saudi Space Agency have launched the global SpaceUp Competition to develop innovative space-based solutions. The contest aims to promote space entrepreneurship, support local companies specializing in space-based solutions, attract global entrepreneurs, startups and SMEs, and encourage the adoption of space-based solutions across various sectors.
July 2024	Saudi space commission teams up with Boeing for aerospace engineering training program	The Saudi Communications, Space and Technology Commission has launched a training program for aerospace engineering students in collaboration with Boeing. The program aims to provide participants with valuable hands-on experience with space technologies and allow them to develop their skills in aerospace engineering and sciences, the Saudi Press Agency reported.
May 2023	The Saudi Space Commission Launches the AX-2 Mission: A Leap Toward the Stars	Saudi Arabia takes another great leap into the cosmos with the launch of Axiom Mission 2. AX-2 was a historical mission for Saudi Arabia because it represented the first time two Saudi astronauts had been sent to the ISS in partnership with Axiom Space. It showed the presence of both male and female astronauts, demonstrating the progress in building expertise and dedication of the Kingdom towards space research.
September 2022	Axiom Space Partners with Saudi Space Commission to Send First Female Saudi Astronaut to Space	Axiom Space, a U.S.-based space company currently building the world's first commercial space station, is working with the Saudi Space Commission (SSC) to train Saudi astronauts for human spaceflight and prepare them to conduct meaningful scientific research in space, while making use of cutting-edge space technologies and scientific innovations.
December 2022	Saudi Space Commission announces launch of Saudi Space Accelerator Program	Saudi Space Commission announces the launch of their Saudi Space Accelerator Program in line with the Kingdom's vision of becoming a global hub of innovation by 2030. The program seeks to enhance the national Space sector by developing their infrastructure and enabling local entrepreneurs and businesses to advance innovative Space solutions.

Source: Saudi Space Commission and Others

- UAE Space Agency

Established in 2014, the UAE Space Agency operates under the UAE government's vision to diversify the economy and position the nation as a regional leader in advanced technology sectors. The agency coordinates national space policy, regulates the sector, and implements key programs with civil and defense implications.

Table 5. UAE Space Agency Initiatives

Year	Development	Description
August 2025	The UAE Space Agency's National Space Academy has partnered with the EDGE Group	The UAE Space Agency's National Space Academy has partnered with the EDGE Group to launch a new ten-week programme aimed at training Emirati professionals in satellite engineering and space mission design. Delivered in collaboration with EDGE entities FADA and BEACON RED, the programme equips Emirati professionals, researchers, and graduates with specialised expertise in satellite mission design, space systems engineering, and mission operations, positioning them to support and accelerate the development of the UAE's space capabilities.
June 2025	UAE Space Agency and Khalifa University Commission First UAE-Developed Sustainable Propulsion System for 6U CubeSat	Khalifa University of Science and Technology and the UAE Space Agency announced commissioning of the region's first environmentally friendly, in-house-developed micro propulsion system for a 6U CubeSat. The system is designed, built, and tested entirely in the UAE, marking a critical step towards building national capability to engineer and deploy satellite propulsion systems.
May 2025	UAE Space Agency Concludes Participation at Make it in the Emirates 2025	The UAE Space Agency participated in the "Make it in the Emirates" event. The Agency reviewed their strategic achievements and pioneering projects that highlight their vital role in advancing the national space economy and enhancing the UAE's global competitiveness in scientific research, advanced technologies, and space exploration.
January 2025	UAE Space Agency Signed an Agreement with Technology Innovation Institute to Execute the Emirates Mission to the Asteroid Belt's Lander Project	The UAE Space Agency and the Technology Innovation Institute (TII) signed an agreement to design and develop the EMA Lander, which will be aboard the MBR Explorer, and will be deployed to study the 7th asteroid Justitia, as part of the Emirates Mission to the Asteroid Belt (EMA). Under this agreement, TII will lead the design, development and testing phases of the lander and provide opportunities for startups' participation in the development of the project.
February 2025	UAE Space Agency and Office for Space Technology and Industry, Singapore, signed a bilateral cooperation Memorandum of Understanding	OSTIn signed an MOU on space cooperation with the UAE Space Agency. The MOU between UAESA and OSTIn on Cooperation in Space Research and Space Activities for Peaceful Purposes establishes a common framework for bilateral cooperation. It reflects our mutual interest in the field of exploration and use of outer space for peaceful purposes.
November 2024	UAE Space Agency partnered with Mitsubishi Heavy Industries for the launch of the "Emirates Mission to the Asteroid Belt" by H3 launch vehicle in 2028	The UAE Space Agency has formalized an agreement with Mitsubishi Heavy Industries Ltd. ("MHI"), a renowned global industrial group and trusted H-IIA and H-IIB Launch Vehicles provider. This partnership will provide launch services for the UAE's landmark endeavor, the Emirates Mission to the Asteroid Belt (EMA). This flagship mission, a successor of the Emirates Mars Mission, is set to launch in the first quarter of 2028.
December 2022	UAE Space Agency and AWS signed agreement to support long-term growth in the region's space ecosystem	The UAE Space Agency and Amazon Web Services (AWS) have signed a Statement of Strategic Intent and Cooperation designed to support space sector in the UAE. AWS collaborates with the Space Agency and related UAE government space organizations on the following three initiatives, designed to support the Space Agency's long-term development goals:  The Emirati – AWS Space Industry Development Program (EASID)

Year	Development	Description
		The Emirati – AWS Talent for Space Program (EATS) The Emirati – AWS Open Data Sponsorship Program

*Source: UAE Space Agency and Others*

## 6. Research, Development, and Innovation

### 6.1 Research and Development Strategies and Innovation Hubs

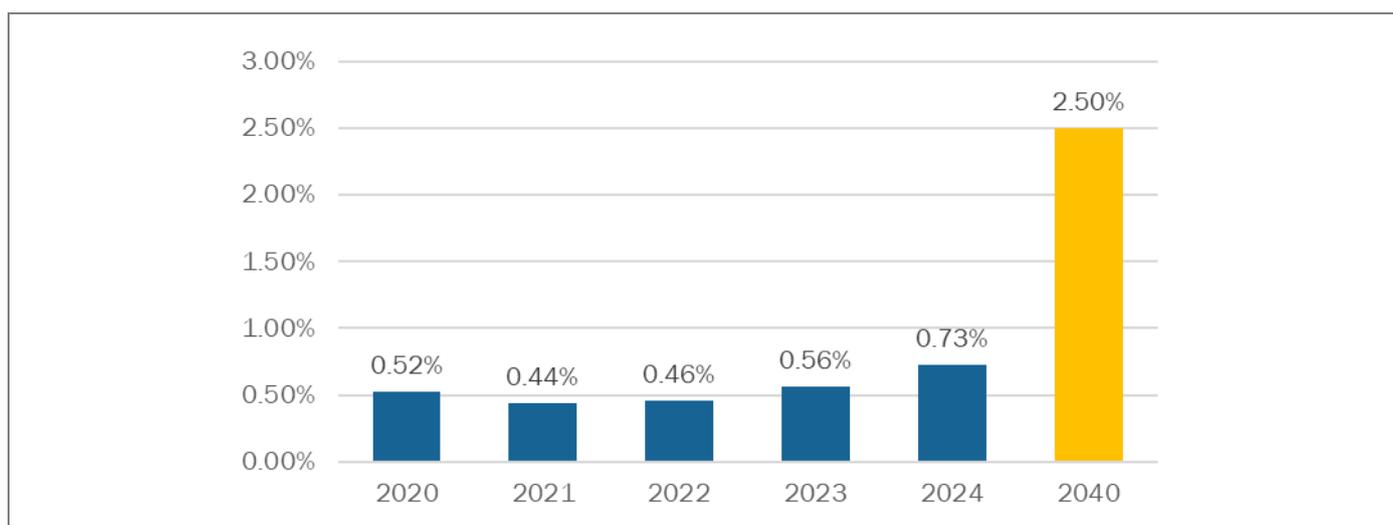
- **Saudi Arabia**

Saudi Arabia's research and development strategy in the defense, aviation, and aerospace sectors is tightly integrated with their broader Vision 2030 industrial and localization goals. The GAMI has made research, development, and innovation a core pillar of their defense industry transformation. Under the Military Participation Programme (formerly the Economic Offset Programme), partnerships with international original equipment manufacturers (OEMs) are required to yield technology transfer, local capacity building, and enhanced research and development collaboration with domestic firms and research institutions. Research and development investments remain low in the country. Saudi Arabia's one of the major targets is to increase defense-sector and military research and development spending from roughly 0.2% of total defense expenditure to ~4% by 2030. To support this, Saudi Arabia has launched the Military Industry Human Capital (MIHC) Strategy, which aims to develop talent in specialized skills, professions, and occupations relevant to defense research and development.

Table 6. Innovation Hubs/ Research and Development/ Tech-Centres in Saudi Arabia

Name	Description
Prince Sultan Defense Studies and Research Center (PSDSARC)	Conducts strategic & defence-research aligned with Saudi objectives. Includes advanced labs for defence/security-oriented research and development.
Prince Sultan Advanced Technology Research Institute (PSATRI)	Connected with King Saud University & Royal Saudi Air Force; works on advanced technologies, testing, applied research in defence and security domains
SAMI Navantia – Naval Systems Integration & Development (NSID) Center of Excellence	A centre of excellence under SAMI for development & integration of naval systems, including combat management, integrated communications, training/simulation etc.
SAMI Land System Center of Excellence	Planned facilities (being developed) focused on land systems (armoured vehicles etc.). A major capability-building hub.
Wahaj (Saudi Advanced Technologies Company)	Though more of a manufacturing / industrial supplier, it acts also as a capability / production centre for aerospace / defence systems, working on precision munitions, jigs, parts, etc. Not exactly a pure research and development hub but part of the innovation/manufacturing ecosystem.
Aero Park One (Jeddah)	Aerospace industrial cluster in MODON Oasis; industrial ecosystem intended to support aerospace & defence manufacturing, maintenance, likely research and development spillovers.

Figure 33. Research And Development Expenditure (% of GDP)



Source: World Bank Data, Analyst Team

Note: Data for 2024 is estimated based on country's budget.

Table 7. Domestic Expenditure on Research and Development

Indicator	2021	2022	2023
Total domestic expenditure on research and development	USD 3.87 Billion	USD 5.12 Billion	USD 6.03 Billion
Total domestic R&D expenditure as a percentage of GDP	0.44%	0.46%	0.56%
Government Expenditure on R&D	USD 1.92 Billion	USD 1.92 Billion	USD 2.29 Billion

Source: The Research, Development and Innovation Authority

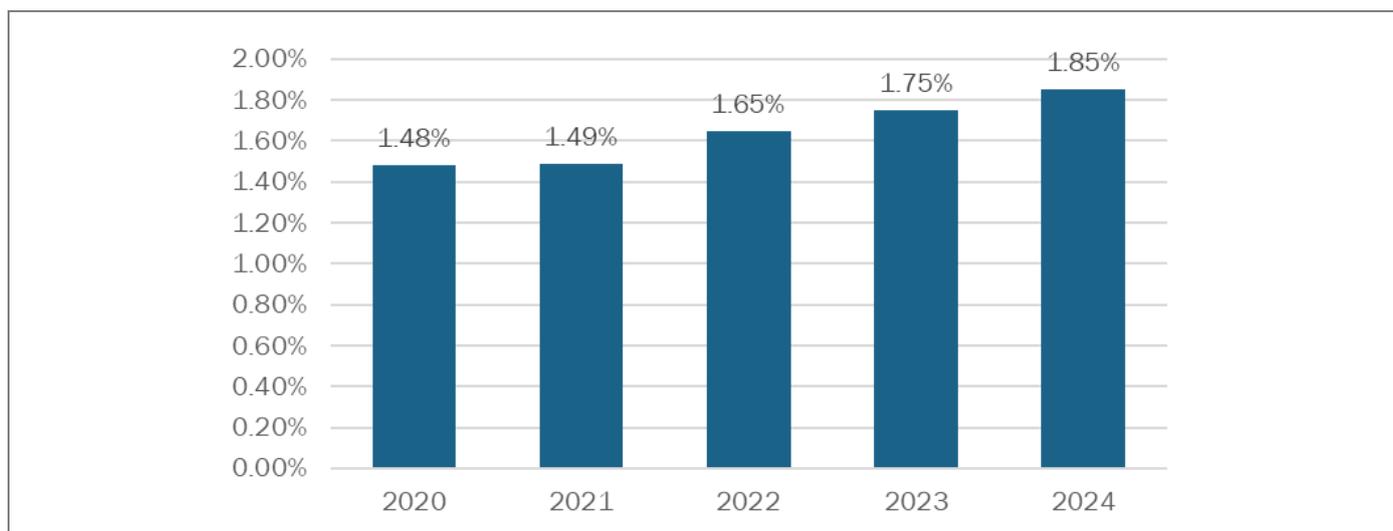
- UAE

The UAE has consolidated many of their capabilities under big integrator platforms, notably EDGE Group (established in 2019), which combines more than 25 entities in platforms & systems, missiles & weapons, cybersecurity, electronic warfare and intelligence, and mission support. EDGE helps to centralize research and development, improve technology transfer, and drive innovation through scale and shared facilities. Another major government initiative is the Tawazun Council's Economic Offset Programme. It is used to advance localization, increase local research and development, foster startups, and transfer technology in defence manufacturing. The Council has completed over 14 defence research and development projects, supports joint ventures and industrial zones, and works closely with academia to build national talent.

Table 8. Innovation Hubs/ Research and Development / Tech-Centres in the UAE

Name	Description
EDGE Group (Technology & Innovation / Platforms & Systems clusters etc.)	A consolidated defence & advanced technology group bringing together many entities. It has research and development, prototyping, technology transfer, platform innovation, systems, space, and cyber. Their Innovation/ Technology cluster and AI Accelerator fall under this.
CBRNE Hub	Initiative for innovation & cooperation around Chemical, Biological, Radiological, Nuclear, Explosive threats. A global hub launched alongside IDEX, organized by the Ministry of Defense & Tawazun.
Tawazun Industrial Park (TIP)	Platform / industrial park aimed at defence-related industrial investment, manufacturing, and attracting high-tech firms; serves as an industrial-R&D / production hub.
Machine Learning / AI centre via BAZ Technologies (L3Harris + partners)	Intelligence Software Center at Tawazun Industrial Park; focuses on ML, AI, software, knowledge transfer and training for defence/dual-use applications
Center for Innovation and Security Solutions (CISS), Masdar City	Part of Lockheed Martin 's engagement in the UAE; works on robotics, simulation, networked systems, etc.; innovation & capacity building in defence-adjacent technologies.

Figure 34. Research And Development Expenditure (% of GDP)



Source: World Bank Data, Analyst Team

Note: Data for 2024 is estimated based on country's budget.

## 6.2 Focus Areas: AI, Unmanned Systems, Cyber Security

### • Saudi Arabia

#### 6.2.1.1 Artificial Intelligence (AI)

AI is being incorporated into military command and control systems, threat analysis platforms, and battlefield automation solutions. The Saudi Data and Artificial Intelligence Authority (SDAIA) is key in integrating AI across defense and security applications. For instance, in November 2024, Saudi Arabia has introduced its first unmanned naval military vessel, powered by artificial intelligence. The vessel, developed by SAMI in partnership with the Royal Saudi Naval Forces, highlights cutting-edge naval technology and innovation. It uses remote-

control systems and onboard defense platforms, enabling seamless operation and reducing risks in dangerous environments. Collaboration with global defense technology leaders enables knowledge transfer and the developing AI-enabled defense systems within the Kingdom.

#### 6.2.1.2 Unmanned Systems

Saudi Arabia is scaling up their investments in unmanned platforms to enhance situational awareness and reduce risk to personnel. The GAMI supports local manufacturing of UAVs and UGVs through partnerships with international OEMs and local startups. Unmanned systems are also being tested for border surveillance, logistics, and combat support missions. For instance, the United Defense Company factory, a subsidiary of Qudra Holding Group specializing in military, defense, and security industries, has successfully produced eight types of drones equipped with artificial intelligence technologies and high-resolution cameras. Located in the Second Industrial City in Buraidah, the factory boasts an annual production capacity of approximately 300 drones of various types with the potential to double this output to 600 annually. Moreover, in 2023, at least five major Saudi entities are developing drone programs in the Kingdom, including the SAMI and the GAMI. Over nine domestic drone programs have matured in the past years, servicing multiple UAV groups and market segments demanded by the Saudi Armed Forces.

#### 6.2.1.3 Cyber Security

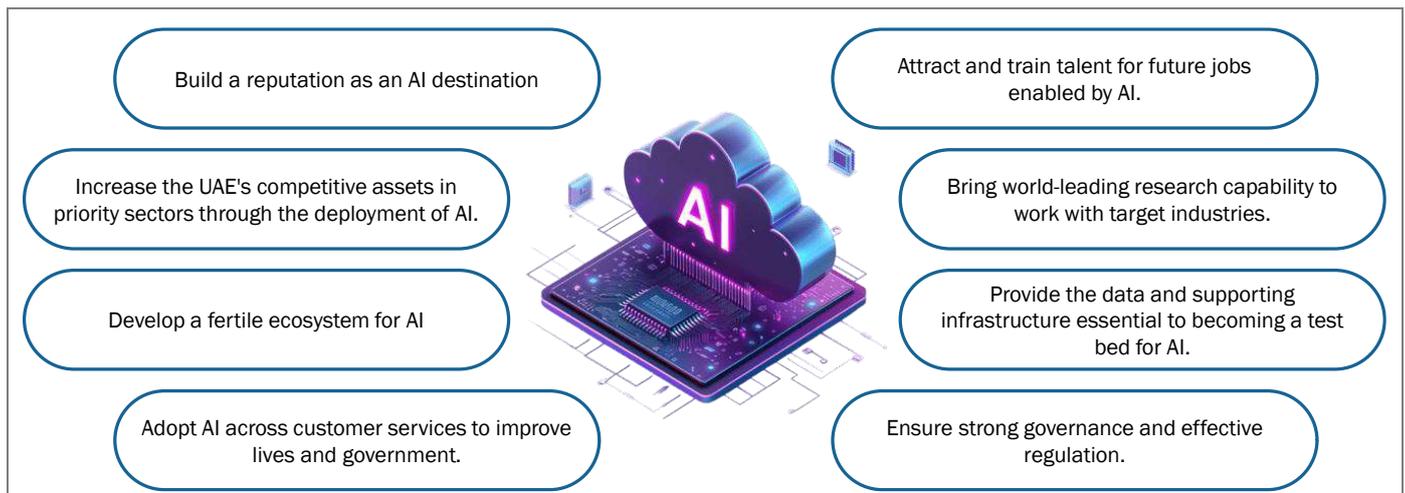
Cyber Security forms a critical component of Saudi Arabia's national security strategy. The Kingdom has established dedicated cyber units within their military and intelligence sectors to counter advanced digital threats. Key initiatives are underway to secure defense communication networks and critical infrastructure. National organizations such as the Saudi Cybersecurity Federation are actively developing local talent, running cybersecurity exercises, and building a resilient digital defense framework. For instance, in October 2025, The Sultanate of Oman and the Kingdom of Saudi Arabia signed a Memorandum of Understanding (MoU) in the field of Cybersecurity on the sidelines of the Global Cybersecurity Forum. The MoU aims to integrate efforts, strengthen partnership, and exchange expertise to protect cyberspace, enhance digital security and stability, and support bilateral cooperation in cybersecurity. Moreover, it focuses on developing national capabilities and readiness to confront and mitigate growing cyber challenges and threats, thus contributing to the protection of critical infrastructure and ensuring a safe and trusted cyberspace.

- UAE

#### 6.2.1.4 Artificial Intelligence (AI)

The UAE is integrating Artificial Intelligence into their defense ecosystem to improve decision-making, automation, and operational efficiency. AI is deployed in surveillance systems, predictive maintenance, and combat simulations. In 2024, L3Harris formed a partnership with the Tawazun Council to establish a machine learning and artificial intelligence center. There will be many private sector opportunities as the U.A.E. seeks to leverage AI to build up its indigenous defense industry. The EDGE Group is at the forefront of developing AI-enabled solutions, focusing on smart weapons, autonomous platforms, and next-generation command systems. For instance, EDGE Group is systematically embedding artificial intelligence (AI) across the full lifecycle of its defense platforms, reinforcing Abu Dhabi's ambitions to lead in next-generation military innovation and defense technology self-sufficiency. Moreover, the development of the UAE military robot witnessed remarkable advancements in UAE's defense industry. The UAE military robot is a sophisticated blend of artificial intelligence, advanced engineering, and domestic manufacturing designed to carry out a variety of military tasks without the need for direct human intervention.

Figure 35. UAE National Strategy for Artificial Intelligence Objectives, 2031



Source: National Program for Artificial Intelligence

#### 6.2.1.5 Unmanned Systems

The UAE is rapidly advancing its capabilities in unmanned systems, leveraging cutting-edge technologies to enhance surveillance, reconnaissance, and combat support operations. Unmanned aerial vehicles (UAVs) and unmanned ground vehicles (UGVs) are being integrated into border security, maritime patrol, and logistics roles to improve situational awareness and operational flexibility while minimizing risk to personnel. For instance, in October 2025, Embention, a developer of autopilots and high-performance components for unmanned systems, has opened a new production facility in the United Arab Emirates (UAE), strengthening its global manufacturing capabilities and advancing its international expansion. Further similarly, in October 2025, the Dubai Ports Authority (DPA), part of the Ports, Customs and Free Zone Corporation (PCFC), has launched 'Port Eye', an integrated aerial monitoring system powered by autonomous drones and artificial intelligence.

#### 6.2.1.6 Cyber Security

Cyber security has become a top-tier national security priority. The UAE is building advanced cyber security capabilities to protect critical military infrastructure and communication networks. Partnerships with international cybersecurity firms and investments in local talent development through institutions such as the UAE Cyber Security Council are helping to bolster national resilience against cyber threats, including hybrid warfare.

### 6.3 Collaboration with Academia and International Partners

Table 9. Collaboration with Academia and International Partners in UAE

Year	Development	Description
July 2025	India & UAE Commit to Deepening Defence Partnership at 13th Joint Defence Cooperation Committee Meeting	India and the UAE reaffirmed their commitment to strengthening bilateral defence cooperation during the 13th India-UAE Joint Defence Cooperation Committee (JDCC) meeting. The two sides agreed to enhance military training cooperation and discussed their training requirements. India offered to provide customised training courses tailored to the UAE's needs.
November 2024	Khalifa University and Lockheed Martin Sign MoU to Enhance Collaboration on Aerospace and Defense Technologies	Khalifa University of Science and Technology and Lockheed Martin, a leader in global security and aerospace, announced the signing of a Memorandum of Understanding (MoU) to broaden their collaboration in advancing aerospace and defense technologies and fostering human capital development in the UAE.
March 2024	Rabdan Academy partners with INTRA Defense Technologies to advance the capabilities of defence and security personnel and services	Rabdan Academy has entered into a strategic partnership agreement with Saudi Arabia-based INTRA Defense Technologies, a leading company in drone technologies, defence systems and integrated logistical support. The agreement was signed to enhance the strategic cooperation frameworks between the two entities across research, training, qualification and accreditation within the defence and security sectors.
February 2024	Rabdan Academy Partners with the Middle East Institute for Cutting-edge Research and Development in Defence and Security	Rabdan Academy, a global leader in safety, security, defence, emergency preparedness, and crisis management, has signed a MoU with the Middle East Institute in Washington, a global research centre specializing in Middle East and North African affairs, to fortify frameworks of strategic cooperation across various research and development fields.
September 2022	Strategic Partnership between Rabdan Academy and the Republic of Indonesia Defense University	Rabdan Academy and the Republic of Indonesia Defense University (RIDU) signed a memorandum of understanding (MOU) in Sentul, Indonesia, to launch joint cooperation between both sides in the scientific, academic and professional fields across safety, security, defence, emergency preparedness and crisis management sectors. Under the MOU, the two parties exchange high-level information, expertise and experiences, establish joint research and development projects, develop academic and professional programs related to defence and security, and enhance multidisciplinary capacity building within the framework of an impactful partnership between the two parties.

Source: Khalifa University, Rabdan Academy and Others

Table 10. Collaboration with Academia and International Partners in Saudi Arabia

Year	Development	Description
April 2025	Cranfield partners with Academy of Defense Industries in the Kingdom of Saudi Arabia	The Academy of Defense Industries (ADI) and Cranfield University have signed a Memorandum of Understanding at the Human Capability Initiative event to advance collaborative research and teaching, and to build skills in the Kingdom of Saudi Arabia. The partnership aims to develop human resources in specialised areas related to defence industries in the Kingdom of Saudi Arabia.

Year	Development	Description
August 2024	Saudi Arabia forges alternative defence partnerships	The Saudi government has signed deals with Turkish defence companies to localise weapons manufacturing while pledging to step up military collaboration with China.
April 2025	Jordan, Saudi Arabia Military, Academic Cooperation	Explore prospects of joint military cooperation and training. The meeting addressed enhancing coordination between JAF and the Saudi Armed Forces, particularly in academic, research, and training domains, aligning with the strategic visions of the military institutions of the two Kingdoms.
January 2022	Lockheed Martin Partners with KFUPM on STEM Training Initiative for Saudi Youth	The U.S.-based global technology leader Lockheed Martin partnered with King Fahd University of Petroleum & Minerals (KFUPM) to help upskill Saudi youth through Science, Technology, Engineering, and Mathematics (STEM) initiatives. The partnership observes Lockheed Martin and KFUPM build on ongoing efforts to develop sovereign capabilities in the Kingdom's aerospace and defense sector by increasing the pipeline of highly skilled Saudi scientists and engineers.

Source: Academy of Defense Industries, Lockheed Martin, Saudi Government and Others

## 6.4 Dual-Use Technology and Civil-Military Convergence

- **Saudi Arabia**

Saudi Arabia is aggressively advancing its dual-use technology capabilities as a cornerstone of Vision 2030 and the National Industrial Strategy, aiming to transition from a traditional defense supplier to an innovation-driven, integrated defense-civil industrial ecosystem. This convergence not only amplifies military capabilities but also accelerates economic diversification by enabling technologies to serve both defense and high-growth civilian sectors.

The establishment of key institutions such as the GAMI and SAMI reflects a strategic commitment to fostering synergies between military and civilian technological development. Investments in robotics, artificial intelligence (AI), aerospace, cybersecurity, and advanced communications technologies are creating a robust pipeline of dual-use innovations. For instance, Saudi Arabia's expanding aerospace and satellite programs—anchored by partnerships between SAMI and international aerospace leaders—are enhancing military surveillance, secure communications, and intelligence capabilities, while simultaneously providing critical civil services like environmental monitoring, urban planning, disaster management, and infrastructure development. Similarly, unmanned aerial vehicle (UAV) technologies originally developed for border security have been adapted for precision agriculture, infrastructure inspection, and commercial logistics, demonstrating tangible civil-military spillovers.

Institutions such as King Abdulaziz City for Science and Technology (KACST) and the emerging NEOM Tech & Digital hub serve as focal points for R&D, fostering collaboration between defense firms, startups, universities, and international partners. For example, KACST has deployed Earth observation satellites that provide data for military intelligence as well as civil applications like agriculture and urban planning. This network is designed to accelerate commercialization pathways for dual-use technologies, catalyzing high-value job creation and boosting the Kingdom's global competitiveness in emerging tech sectors.

By integrating civil and military R&D efforts, Saudi Arabia aims to reduce reliance on imports, accelerate technology transfer, and build a resilient innovation ecosystem that supports both national security and economic growth. GAMI's "Technology Transfer and Innovation Program" is another key initiative enabling defense and civilian tech companies to jointly develop dual-use prototypes. This dual-use focus also positions the Kingdom as a strategic technology hub in the Middle East, strengthening its geopolitical leverage amid shifting regional dynamics.

- UAE

The UAE is pursuing a highly strategic approach to dual-use technologies, leveraging its national innovation agenda to fuse civilian and military technological development within a broader economic diversification framework. This strategy is driven by leading entities including EDGE Group, Tawazun Council, and the Advanced Technology Research Council (ATRC), which collectively drive investments in AI, autonomous systems, space technologies, cybersecurity, and advanced materials.

The EDGE Group, a state-owned defense conglomerate, exemplifies this approach by integrating cutting-edge technologies across its portfolio. For example, EDGE's entity FADA launched TACTICA, an AI-powered geospatial intelligence platform that processes satellite imagery, sensor data, and other intelligence to support both military and civilian decision-making. This platform underscores the UAE's commitment to utilizing military-grade technologies for civilian applications. Additionally, EDGE's partnership with General Atomics to manufacture and repair electromechanical systems demonstrates the UAE's focus on developing sovereign capabilities in advanced manufacturing. This collaboration, supported by the Tawazun Economic Program, produces airworthy components for military and commercial aircraft.

The UAE's commitment to dual-use technology is further evidenced by its collaboration with Milrem Robotics to supply unmanned ground vehicles (UGVs), which can also be used in civil logistics and infrastructure inspection. EDGE has also expanded UGV and Robotic Combat Vehicle (RCV) programs, integrating advanced autonomy features that serve both defense and civil applications.

The UAE's aerospace and space programs exemplify civil-military convergence. The UAE Space Agency's ambitious projects—ranging from satellite remote sensing to interplanetary exploration—simultaneously advance national security, intelligence capabilities, and civil applications such as urban development, environmental monitoring, and disaster response. Similarly, UAVs and data analytics platforms developed through joint ventures with international partners serve dual roles in border security and commercial sectors including logistics and energy infrastructure inspection.

Public-private partnerships are integral to the UAE's model, fostering joint R&D initiatives that accelerate the development and commercialization of dual-use innovations. Government-backed funding and streamlined regulatory frameworks create a conducive environment for startups and multinational firms to collaborate on frontier technologies, enhancing local manufacturing capabilities and fostering technology transfer.

Moreover, the UAE's investment in advanced materials and cybersecurity addresses both military resilience and emerging commercial needs, underscoring the holistic nature of its dual-use strategy. By nurturing a vibrant innovation ecosystem that bridges defense and civilian sectors, the UAE aims to establish itself as a regional technology hub, attracting global talent and investment while bolstering its strategic autonomy.

## 7. Human Capital and Talent Development

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### 7.1 Workforce Nationalization in the Defense Sector

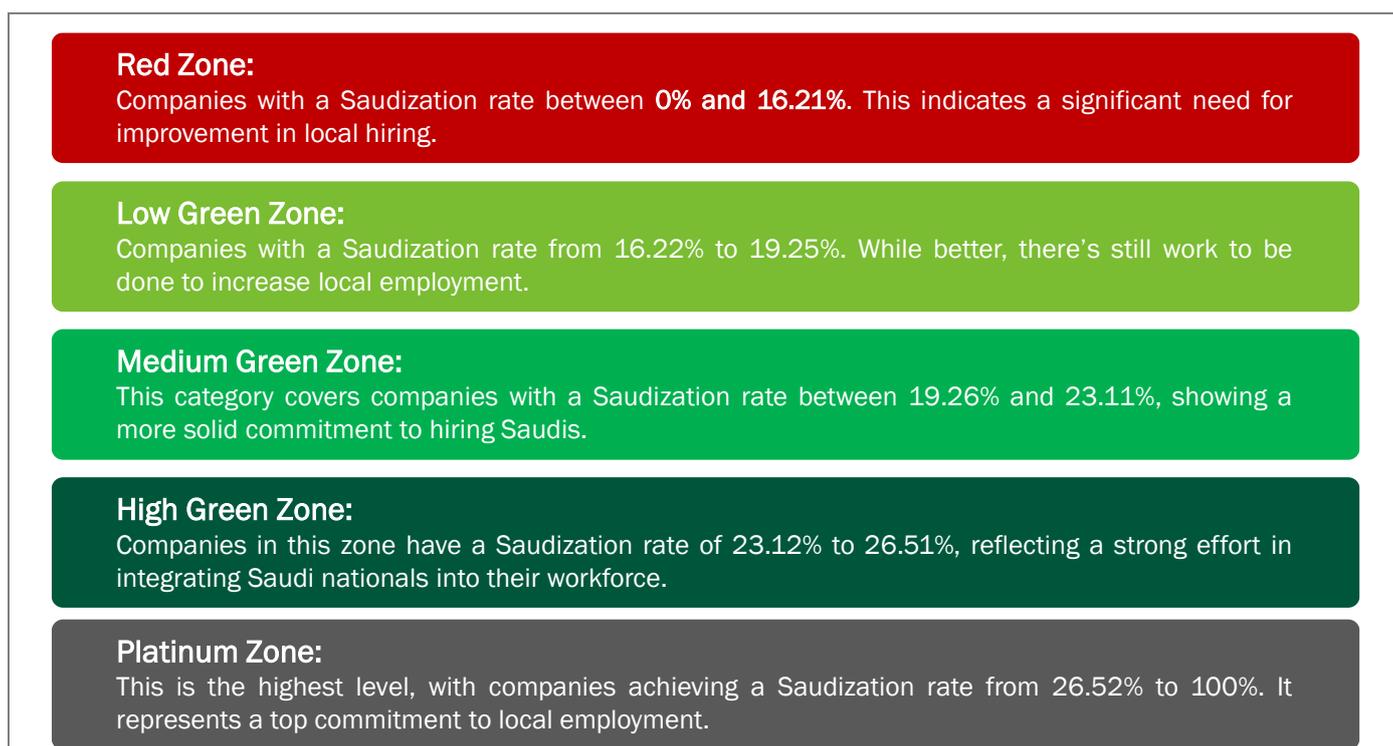
- **Saudi Arabia**

Saudi Arabia is undergoing a significant transformation in their defense sector, strongly emphasizing workforce nationalization as part of their Vision 2030 objectives. The GAMI has set ambitious targets to localize over 50% of defense spending by 2030, focusing on increasing Saudi nationals' participation in the industry. Starting at 2% in 2016, the rate doubled to 4% by 2017, reflecting early efforts to integrate Saudi nationals into military industries. A notable surge occurred between 2020 and 2024, where localization increased from 8% to 24.89%, driven by aggressive workforce nationalization programs, enhanced training initiatives, and partnerships between GAMI, SAMI, and private defense firms. By 2030, Saudi Arabia targets a localization rate of 50%, underlining its commitment to Vision 2030 objectives and building a self-reliant defense sector.

#### Saudization

The below chart shows how companies are grouped based on their Saudization rates, which measure the percentage of Saudi nationals employed. Companies in the Red Zone (0–16.21%) have the lowest local hiring and need major improvement. The Low Green Zone (16.22–19.25%) shows some progress but still needs effort. The Medium Green Zone (19.26–23.11%) indicates a stronger commitment to hiring Saudis. Companies in the High Green Zone (23.12–26.51%), where the defense sector currently stands, are performing well and show a solid effort toward local integration. The Platinum Zone (26.52–100%) represents top performers with the highest dedication to employing Saudi nationals. By 2030, with the sector targeting a 50% localization rate, the defense sector is projected to move into the Platinum Zone, reflecting the highest level of commitment to Saudi workforce integration.

Figure 36. Saudization Zones



Source: GOV.SA Portal

- **UAE**

The UAE actively pursues Emiratization in their defense sector to enhance national security and reduce reliance on foreign expertise. This initiative is part of a broader strategy to integrate Emirati nationals into various industries, focusing on defense and technology. The core of the Emiratization law revolves around annual increases in the Emiratization rate for companies in the private sector with more than 50 employees. These businesses must raise their Emiratization rate by 2% of their skilled workforce each year. For companies falling under the Emiratization law, the minimum recruitment targets are as follows:

Table 11. Emiratization Requirements &amp; Quotas

Company Size	2024-2025 Quota	Penalty for Non-Compliance
50+ employees	+2% Emirati hires per year (aiming for 10% by 2026)	USD 1633.76 - 2722.94 per month, per unfilled position
20-49 employees	1 Emirati by end-2024; 2 by end-2025	USD 26140.23 (2024) / USD 29407.76 (2025) per missing hire

Source: Ministry of Human Resources & Emiratization (MoHRE)

As of 2024, the UAE defense sector has achieved an Emiratization rate of approximately 7%, reflecting a growing commitment to integrating Emirati nationals into skilled defense roles. With ongoing government initiatives and recruitment targets, the sector aims to reach 10% Emiratization by 2026, further strengthening national workforce participation. By 2030, sustained efforts are expected to significantly increase Emirati representation across the defense workforce, aligning with national strategic goals.

## 7.2 Technical Education, Military Academies, and Scholarships

- **Saudi Arabia**

Saudi Arabia is investing significantly in building a robust ecosystem of technical education, military training, and scholarship programs to support their growing defense, aviation, and aerospace sectors. These efforts align closely with Vision 2030, which seeks to localize 50% of military expenditure, develop human capital, and establish a sustainable national defense industry.

#### 7.2.1.1 Technical and Vocational Education

Saudi Arabia has prioritized technical education as a key enabler of their defense industrial base. The Technical and Vocational Training Corporation (TVTC) plays a central role, offering specialized mechanical, electrical, and aerospace engineering programs through colleges across the Kingdom.

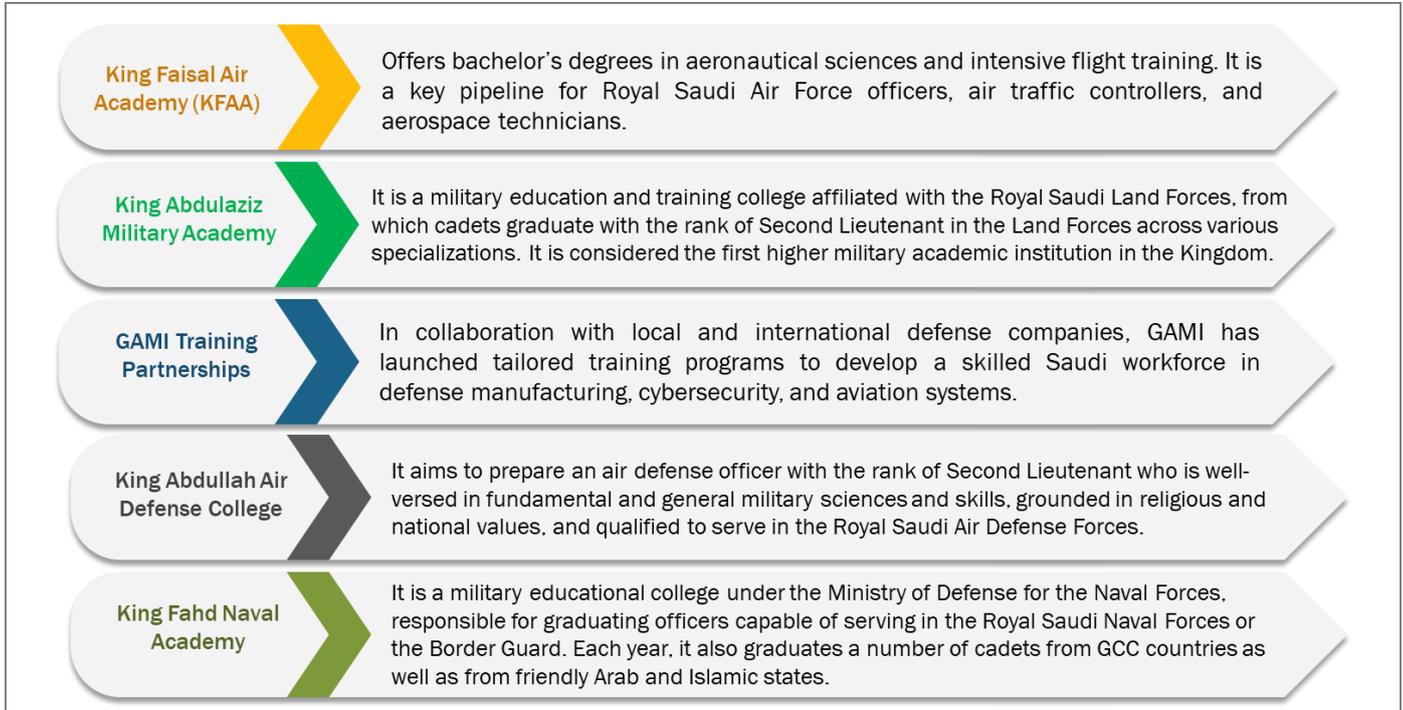
Figure 37. Key Institutions Supporting Defense-Related Technical Education



## 7.2.1.2 Military Academies and Training Institutes

Saudi Arabia operates multiple military academies to prepare their officer corps and specialized defense professionals.

Figure 38. Military Academies and Training Institutes



## 7.2.1.3 Scholarships

Saudi Arabia has implemented a series of strategic initiatives to develop a sustainable pipeline of qualified Saudi nationals for the defense sector. These scholarship programs are integral to the Kingdom's broader Vision 2030 objectives, focusing on building national capabilities and supporting the localization of defense industries.

Figure 39. Scholarships



Source: Ministry of Education – Kingdom of Saudi Arabia

#### 7.2.1.4 Upskilling for Emerging Defense Technologies

Saudi Arabia's upskilling strategy is firmly anchored in Vision 2030 and driven by key institutions such as the GAMI and SAMI. The Kingdom prioritizes developing a highly skilled defense workforce to support its goal of localizing 50% of military spending by 2030.

Central to this effort is the establishment of the SAMI Academy, which offers specialized training programs, apprenticeships, and postgraduate education focused on emerging defense technologies like military artificial intelligence, drone systems, electronic warfare, cybersecurity, and smart weapons. GAMI also spearheads initiatives that foster collaboration between defense companies and universities, aligning academic curricula with the evolving technological needs of the defense sector.

Saudi Arabia invests heavily in simulation centers, innovation hubs, and technology incubators to provide practical, hands-on experience. Programs such as the Human Capability Development Program (HCDP) play a pivotal role in cultivating local talent, particularly engineers, data scientists, and technologists equipped for defense industry demands.

This Vision 2030-led approach ensures a sustainable pipeline of skilled nationals who can contribute to the Kingdom's strategic autonomy and economic diversification.

- **UAE**

The UAE has adopted a forward-looking approach to technical education and military training, ensuring Emirati nationals have the skills to sustain and grow their defense, aerospace, and aviation sectors. This aligns with the UAE's national strategy to become a regional defense technology and self-sufficiency leader.

#### 7.2.1.5 Technical and Vocational Education

The UAE government has established a national framework to support technical and vocational education through institutions that cater directly to defense and aerospace needs.

Figure 40. Key Institutions Supporting Defense-Related Technical Education

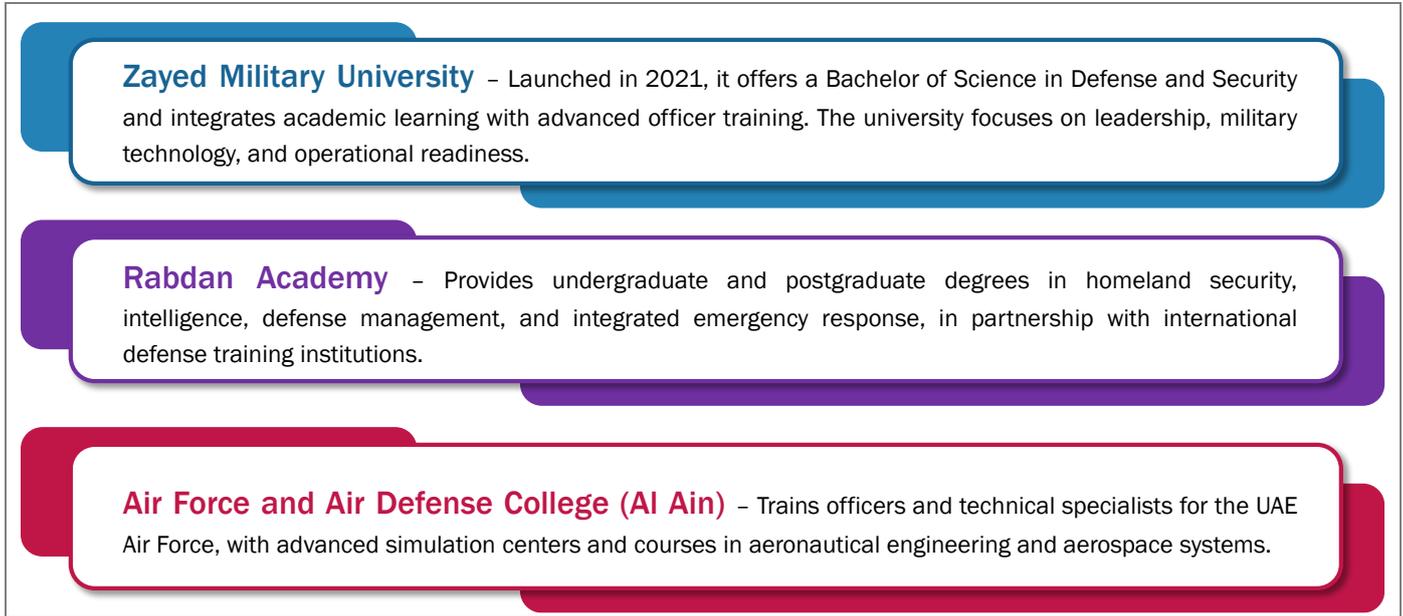


Source: Ministry of Foreign Affairs (MoFA)

## 7.2.1.6 Military Academies and Training Institutes

The UAE has developed a modern and integrated military education infrastructure.

Figure 41. Military Academies and Training Institutes



## 7.2.1.7 Scholarships

To accelerate Emirati participation and leadership in the defense and aerospace sectors, the UAE has developed a comprehensive suite of scholarship programs to nurture a highly skilled national workforce. These initiatives are critical to meeting the demands of a rapidly evolving technological landscape and supporting the country's broader vision of defense localization and innovation.

Figure 42. Scholarships



Source: Ministry of Foreign Affairs (MoFA)

## 7.2.1.8 Upskilling for Emerging Defense Technologies

The UAE's upskilling framework is distinctly driven by the EDGE Group and the Tawazun Council, reflecting its industrial and innovation-centric defense ecosystem. The UAE focuses on preparing Emirati professionals for

rapid advancements in aerospace, cyber security, artificial intelligence, autonomous systems, and space technologies.

Programs under the National Advanced Sciences Agenda and the UAE Strategy for Artificial Intelligence complement the sector-specific efforts led by EDGE and Tawazun. These organizations have developed dedicated training centers, R&D facilities, and industry-academic partnerships to provide Emiratis with technical skills tailored to defense manufacturing and technology integration.

The UAE emphasizes vocational training and technical certifications, bridging the gap between theoretical knowledge and practical application. Notable institutions such as the UAE Space Agency Training Centre and the Tawazun Economic Program offer specialized courses in systems integration, cyber warfare, advanced simulation, and aerospace engineering.

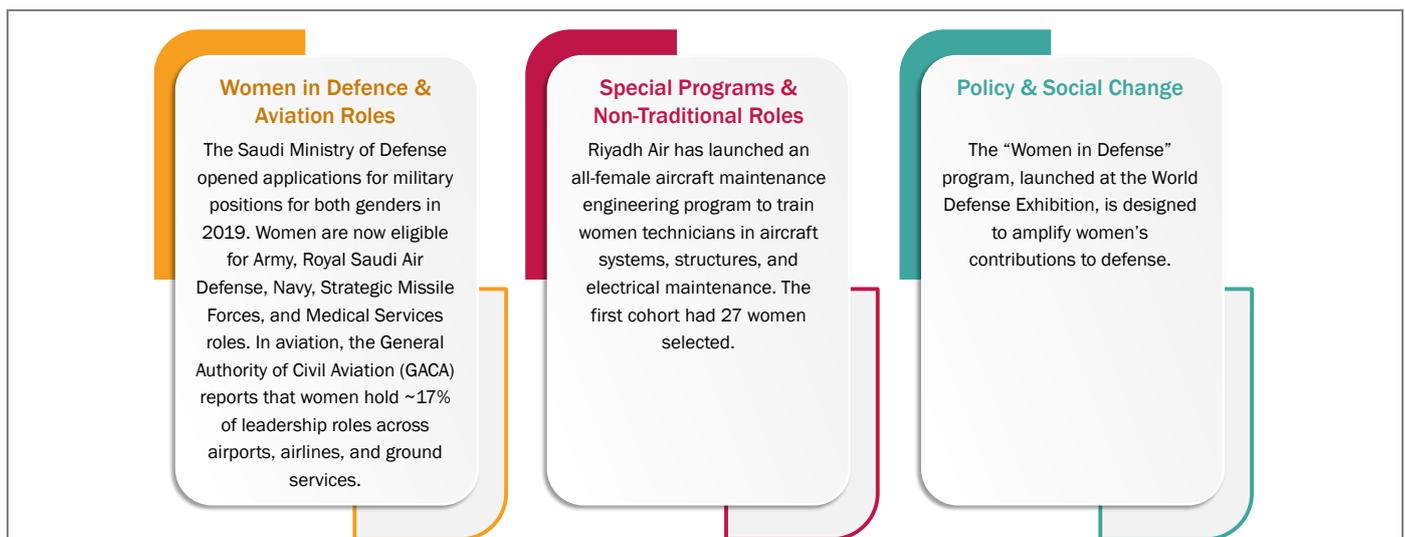
This EDGE and Tawazun-driven model align with the UAE's long-term vision of becoming a regional defense innovation hub, prioritizing local talent development to support both national security objectives and employment growth.

### 7.3 Gender Inclusion and Youth Engagement

- **Saudi Arabia**

Saudi Arabia has been taking steps in recent years to increase gender inclusion and engage youth more systematically in their defense, aviation, and aerospace sectors. These efforts align with Vision 2030, which emphasizes maximizing human capital, increasing women's participation in the workforce, and empowering younger generations.

Figure 43. Gender Inclusion and Youth Engagement

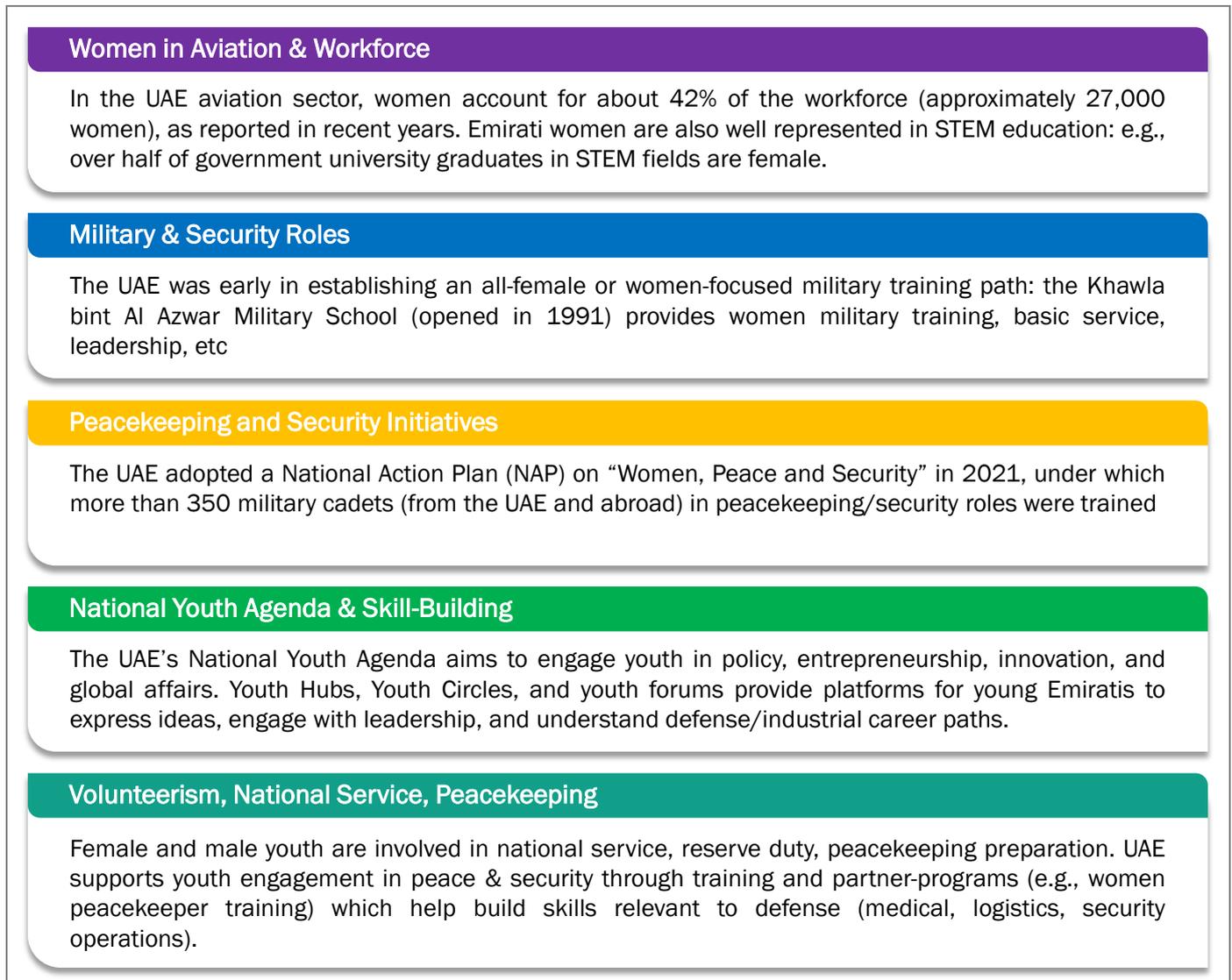


Source: General Authority of Civil Aviation (GACA), Riyadh Air, and Others

- UAE

The UAE has long emphasized empowering women and engaging youth in national development, including in defense, aviation, aerospace, and related high-tech sectors. There are frameworks, institutions, and policies that support gender inclusion and youth engagement, often in intertwined ways.

Figure 44. Gender Inclusion and Youth Engagement



Source: UAE Government, and Others

## 8. Strategic Partnerships and Global Positioning

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### 8.1 Defense Cooperation with the U.S., Europe, and Asia

- **Saudi Arabia**

Saudi Arabia has long-standing defense relationships with the US, various European nations, and key Asian partners. These relationships are central to the Kingdom's strategic defense posture, military modernization agenda, and regional security ambitions.

#### 8.1.1.1 Saudi Arabia Defense Cooperation with the US

Saudi Arabia's defense partnership with the United States has been a cornerstone of the Kingdom's military modernization and strategic security for decades. The relationship dates back to the late 1940s and early 1950s, when the US began providing military advisors and equipment to support Saudi Arabia's emerging armed forces. Over the years, this cooperation deepened through a series of arms agreements, training programs, and joint exercises, particularly during periods of regional tension such as the Gulf War in 1990–1991 and the post-9/11 era, when counterterrorism and homeland security became central priorities.

The landmark USD 142 billion arms deal announced in May 2025 represents the latest and most ambitious phase of this enduring partnership. It reflects not only a substantial enhancement of the Kingdom's defense capabilities but also broader economic collaboration, including significant commercial agreements in energy and aerospace. Saudi Arabia's inclusion in the US Department of Defense National Guard State Partnership Program and formalized military ties with the National Guard units of Indiana and Oklahoma highlight deeper operational cooperation and capacity building. These developments, along with high-level discussions between Saudi defense officials and US Central Command leadership, reinforce a robust, multifaceted alliance aimed at bolstering regional stability, advancing technological integration, and strengthening joint defense readiness in a rapidly evolving geopolitical landscape.

Figure 45. Key Saudi Arabia Defense Cooperation with the US (2023-2025)

Year	Description
August 2025	The Kingdom of Saudi Arabia expanded their strategic ties with the US by formally joining the Department of Defense National Guard Bureau State Partnership Program.
August 2025	The Ministry of Defense signed a military partnership agreement with the US National Guard of Indiana and Oklahoma, as part of the US Department of Defense's State Partnership Program to strengthen defense and security cooperation. Plans comprise joint field training, officer exchange programs, and specialized workshops on topics like artificial intelligence and crisis management. Indiana and Oklahoma were selected for their expertise in military training, leadership development, and disaster response.
May 2025	President of US announced Saudi Arabia's USD 600-billion commitment to invest in the United States, building economic ties. The first deals under the announcement strengthen their energy security, defense industry, technology leadership, and access to global infrastructure and critical minerals.
April 2025	The United States offer Saudi Arabia an arms package worth more than USD 100 billion. Top defence contractors such as Lockheed Martin, RTX Corp, Boeing, Northrop Grumman and General Atomics are reported to be involved in the supply of advanced weapons systems.
July 2024	The US and Saudi Arabia signed a new agreement for civilian space cooperation and research. Known as the "Framework Agreement Between the Government of the United States of America and the Government of The Kingdom of Saudi Arabia on Cooperation in Aeronautics and the Exploration and Use of Airspace and Outer Space for Peaceful Purposes," the deal establishes a legal framework to facilitate and strengthen collaboration between the two countries in the exploration and use of air and outer space for peaceful purposes.
October 2024	The U.S. State Department approved a potential Foreign Military Sale to Saudi Arabia involving AIM-9X Block II Sidewinder missiles and associated support systems, with an estimated value of USD 251.8 million. This sale marks a significant step in strengthening the defense partnership between the two nations, enhancing Saudi Arabia's air defense capabilities.
December 2024	Saudi Arabia abandoned its pursuit of an ambitious defense treaty with Washington in return for normalizing relations with Israel. The decision was influenced by the stalemate over Israel's stance on Palestinian statehood, leading Riyadh to push for a more modest military cooperation agreement with the U.S.
December 2023	The US State Department approved the potential sale of military training programs to Saudi Arabia for an estimated cost of \$1 billion. This proposed sale will support the foreign policy goals and national security objectives of the United States by improving the security of a friendly country that is a force for political stability and economic progress in the Middle East.
December 2023	The U.S. State Department approved a USD 1 billion military training program for Saudi Arabia. The package includes flight training, technical education, professional military instruction, and specialized training in areas such as civilian casualty avoidance and the laws of armed conflict. This initiative aims to enhance the Royal Saudi Air Force's capabilities and improve interoperability between U.S. and Saudi forces

## 8.1.1.2 Saudi Arabia Defense Cooperation with Europe

Saudi Arabia's strategic defense cooperation with key European partners is a critical element of its broader military modernization and regional security strategy. The Kingdom has progressively deepened ties with leading European defense powers, exemplified by its newly established strategic partnership with Italy and strengthened collaboration with the UK and France. These partnerships focus not only on joint defense capabilities and technology transfers but also on enhancing industrial cooperation and knowledge sharing across defense sectors.

Figure 46. Key Saudi Arabia Defense Cooperation with Europe (2023-2025)

Year	Description
January 2025	Italy and Saudi Arabia have signed an agreement to strengthen ties between the two countries and bring them to the level of a strategic partnership.
December 2024	Saudi Arabia and UK Agree to strengthen defense cooperation. Both countries agreed to advance their defense partnership and explore more collaboration in the defense industries
January 2025	Italian Prime Minister expressed Italy's support for Saudi Arabia's potential involvement in the Global Combat Air Programme (GCAP), a collaborative fighter jet initiative involving Italy, the United Kingdom, and Japan. While integration into the program would require detailed discussions among the founding nations, this endorsement marks a significant step in enhancing defense collaboration between Saudi Arabia and European partners.
January 2025	Italian aerospace and defense company Leonardo signed a Memorandum of Understanding (MoU) with Saudi Arabia's General Authority for Military Industries (GAMI) to explore investment and collaboration opportunities in the aerospace and defense sectors. The agreement aims to develop areas such as space industry, airframe maintenance, electronic warfare systems, radar localization, and helicopter assembly, aligning with Saudi Arabia's Vision 2030 objectives
December 2024	France and Saudi Arabia signed a comprehensive strategic partnership agreement during French President Emmanuel Macron's state visit to Saudi Arabia. The agreement includes the establishment of a Strategic Partnership Council, focusing on expanding cooperation in defense, energy transition, culture, and mobility.
October 2024	Saudi Arabia and Spain signed an executive agreement to support the construction of three new multi-mission combat ships for the Royal Saudi Naval Forces. The agreement also includes cooperation in training, exchange of expertise, and technical and logistical support, as part of the "Sarawat Project" expansion contract.

March 2023

Saudi Arabia signed a declaration of intent with the United Kingdom regarding its participation in the Future Combat Air System (FCAS) program. The FCAS initiative, led by France, Germany, and Spain, aims to develop a next-generation fighter jet to replace the Eurofighter and Dassault Rafale by 2040. Saudi Arabia's involvement in this program underscores its commitment to advancing its air defense capabilities and fostering deeper defense ties with European partners.

December 2022

Saudi Arabia and Spain signed a memorandum of understanding for the construction of multi-mission combat ships for the Royal Saudi Naval Forces. The agreement aimed to enhance the operational readiness of the Saudi navy and support regional maritime security. The project is part of Saudi Arabia's broader efforts to modernize its naval capabilities.

### 8.1.1.3 Saudi Arabia Defense Cooperation with Asia

Saudi Arabia's defense engagement with Asian partners is rapidly expanding, reflecting the Kingdom's strategic intent to diversify its defense alliances and enhance regional security through robust multilateral cooperation. The recent Strategic Mutual Defence Agreement with Pakistan underscores a commitment to collective security, emphasizing mutual deterrence against external threats. In parallel, the India-Saudi Arabia Joint Committee on Defence Cooperation continues to explore broader collaboration in training, maritime security, and industrial partnerships, signaling deepening ties beyond traditional arenas.

Figure 47. Key Saudi Arabia Defense Cooperation with Asia (2023-2025)

Year	Description
September 2025	The agreement aims to develop aspects of defence cooperation between the two countries and strengthen joint deterrence against any aggression. It states that “any aggression against either country shall be considered an aggression against both”
August 2025	In the 7th meeting of the India-Saudi Arabia Joint Committee on Defence Cooperation, both countries reiterated their commitment to further strengthening bilateral defence cooperation. The two countries held discussions in areas such as training cooperation, industrial partnerships, maritime cooperation and military exercises to strengthen defence ties and explore new avenues of collaboration
February 2025	Saudi Arabia and South Korea have signed a government quality assurance agreement to strengthen defense cooperation and boost their military capabilities and long-term industrial development.
February 2024	South Korea will export air defense systems to Saudi Arabia as part of a US\$3.2 billion deal. The memorandum of understanding is expected to strengthen bilateral defense cooperation.
April 2025	Saudi Arabia and India agreed to boost cooperation in energy and defense sectors. The discussions included collaboration in defense manufacturing, reflecting a growing strategic partnership.
October 2025	Saudi Arabia and China conducted "Blue Sword 2025," a joint naval exercise held in Saudi Arabia. This exercise, the third of its kind, aimed to promote the exchange of skills and tactics among the participating troops from both sides, deepening the friendship and cooperation between the two militaries.
March 2025	The Korea Aerospace Administration (KASA) and the Saudi Space Agency (SSA) signed a memorandum of understanding to enhance bilateral cooperation in the space sector. The agreement focuses on deep space technology, human spaceflight programs, satellite launches, and capacity-building initiatives.
February 2024	Saudi Arabia and South Korea signed a \$3.2 billion contract for the acquisition of Cheongung-II (KM-SAM II) medium-range surface-to-air missile systems. The deal, finalized during the World Defense Show in Riyadh, underscores a deepening defense relationship between the two nations. The system is designed to intercept incoming missiles at altitudes of up to 40 kilometers, enhancing Saudi Arabia's defense capabilities.
February 2024	Saudi Arabia and India conducted a joint military exercise named 'Sada Tanseeq' in Rajasthan. The exercise focused on counterterrorism operations and enhancing interoperability between the two nations' armed forces.
October 2023	Saudi Arabia and China conducted the "Blue Sword-2023" joint naval special operations training in Guangdong, China. This three-phase exercise involved over 100 personnel from both nations and focused on anti-terrorism operations in a foreign maritime environment. The training included activities such as sniper tactics, boat driving, helicopter landing, and joint rescue operations, aiming to enhance the operational capabilities and combat readiness of both navies.
July 2023	Saudi Arabia signed the Treaty of Amity and Cooperation with the Association of Southeast Asian Nations (ASEAN) countries. This treaty aims to enhance international peace and security and strengthen dialogue and coordination among member states.

- UAE

The UAE has emerged as one of the most active defense players in the GCC, maintaining a wide network of defense partnerships across the US, Europe, and Asia. Driven to become a technologically advanced and self-reliant military power, the UAE engages in strategic cooperation, including procurement, joint development, training, and defense diplomacy.

#### 8.1.1.4 UAE Defense Cooperation with the US

The defense cooperation between the UAE and the United States is one of the most strategically significant bilateral partnerships in the Middle East, rooted in decades of close collaboration and mutual trust dating back to the early 1990s. Over the years, this relationship has evolved from foundational military training and joint exercises to encompassing advanced technology transfer, industrial collaboration, and enhanced operational readiness. The 2025 Letter of Intent to establish a Major Defense Partnership with the U.S. Defense Innovation Unit (DIU) and the UAE's Tawazun Council signals a shift towards deeper integration in cutting-edge defense innovation and joint research, positioning the UAE as a key innovation hub in the region. This longstanding partnership continues to adapt and grow in response to evolving strategic challenges and technological advancements.

Figure 48. Key UAE Defense Cooperation with the US (2023-2025)

Year	Description
May 2025	The Minister of State for Defense Affairs of the United Arab Emirates and United States Secretary of Defense, signed a Letter of Intent (LOI) to establish a comprehensive U.S.-UAE Major Defense Partnership. As part of this partnership, the Secretary announced a new strategic initiative between the U.S. Defense Innovation Unit (DIU) and the UAE's Tawazun Council. This collaboration will deepen ties in defense innovation, facilitate joint research and development, and expand industrial and investment partnerships across both defense ecosystems.
May 2025	United Arab Emirates – The Texas National Guard and the United Arab Emirates will be paired in the Department of Defense National Guard Bureau State Partnership Program (SPP), the Defense Department. The SPP, which formally welcomed the UAE as a member, "will bolster military modernization efforts and enhance cooperation in integrated air and missile defense, cybersecurity, disaster response and operational planning."
May 2025	The US State Department announced that it had approved a possible Foreign Military Sale (FMS) of CH-47F Chinook Helicopters and related equipment to the United Arab Emirates (UAE) for an estimated cost of USD 1.32 billion. These helicopters will bolster the UAE's special operations and regional mobility capabilities.
September 2024	US President officially recognized the UAE as a "Major Defense Partner" of the United States. This designation, previously granted only to India, facilitates closer military collaboration, including joint training, exercises, and technology sharing. The move underscores the growing alignment between the two nations amid regional security challenges
October 2024	The UAE Navy and the U.S. Navy conducted the "Iron Defender 24" exercise in the Arabian Gulf. This bilateral maritime drill aimed to enhance interoperability and readiness, focusing on scenarios such as visit, board, search and seizure operations, unmanned system integration, harbor defense, and medical training.

October 2024	The UAE Ministry of Defence and the U.S. Department of Defense signed a Technical Arrangement Agreement. This agreement establishes frameworks for military cooperation and aims to strengthen the strategic partnership between the two nations, contributing to regional security and stability.
May 2023	The UAE and U.S. ground forces conducted the "Iron Union 19" joint military exercise in the Emirates. This annual exercise aimed to develop joint cooperation and coordination, enhancing combat readiness and professionalism in mission execution.
May 2023	The UAE and the U.S. signed a joint statement on cross-border data flows, emphasizing the protection of citizens' data and enhancing interoperability to facilitate commercial activity across borders. This agreement aimed to make their regulatory frameworks interoperable and provide legal clarity for data-reliant operations.

#### 8.1.1.5 UAE Defense Cooperation with Europe

The UAE's defense alliances with European nations, particularly Italy and Hungary, underscore a strategic shift towards diversified, innovation-driven partnerships. These collaborations enable the UAE to access advanced defense technologies, enhance its military capabilities, and integrate into European defense frameworks. By fostering such relationships, the UAE aims to bolster regional stability, promote technological advancements, and assert its position as a proactive security provider on the global stage.

Figure 49. Key UAE Defense Cooperation with Europe (2023-2025)

Description	
February 2025	Italy and the UAE have deepened their strategic partnership with key agreements spanning cybersecurity, energy, infrastructure, and advanced technology. The deals highlight critical areas from underwater defence to space collaboration, reinforcing Italy's pivotal role in the Gulf and enhancing global security amid increasing geopolitical instability.
February 2025	Sweden and the UAE strengthened their defense collaboration by jointly developing high-tech coastal radar systems. These systems, produced by Swedish defense firm Saab in the UAE, are designed to counter high-intensity threats, including drone and missile attacks. The collaboration reflects a shared commitment to enhancing homeland defense capabilities and adapting to evolving security challenges.
February 2025	EDGE Group (UAE) and Naval Group (France) signed a Memorandum of Understanding (MoU) to explore potential collaboration in the naval combat systems domain. This partnership aims to leverage both nations' expertise in naval defense technologies to enhance maritime security and defense capabilities.
July 2025	The UAE and Turkey signed an agreement to protect classified information in defense industry cooperation. This agreement defines procedures for securing classified information exchanged or generated through joint defense projects, paving the way for closer military collaboration between the two nations.
February 2024	The UAE and Greece signed a Military Cooperation Program (MCP) for the year, marking a significant step in bilateral defense relations. The program includes joint training exercises for Special Forces, crisis management, electronic warfare, and participation in NATO Maritime Interdiction Operational Training Center (NMIOTC) activities.
April 2024	Hungary and the UAE signed a military and defense industry cooperation agreement. The agreement aims to promote official military coordination, identify overlaps in research, development, and innovation, and enhance the defense capabilities of both nations. Hungary views this partnership as a means to modernize its military and stimulate its defense industry.
June 2024	The UAE and the European Union held their fourth Senior Officials' Meeting in Brussels, aiming to solidify their comprehensive bilateral partnership. Discussions focused on critical issues within the framework of three key working groups: "Trade and Economic Diversification," "Security and Counter-Terrorism," and "Global Agenda." This meeting underscores the UAE's commitment to enhancing its defense and security cooperation with the EU.
February 2023	The UAE signed military contracts worth \$735 million, including agreements with French companies such as MBDA and Leonardo.

#### 8.1.1.6 UAE Defense Cooperation with Asia

The UAE's defense partnerships with Asian nations—India, China, and Japan—demonstrate a strategic diversification of alliances aimed at enhancing military capabilities and regional security. With India, the 13th Joint Defence Cooperation Committee meeting in July 2025 marked a significant step in strengthening ties, focusing on customized military training, maritime security, and joint manufacturing initiatives. The collaboration with China emphasizes the exchange of defense and security experiences, aiming to upgrade the capacities of military personnel and security institutions in both countries.

Figure 50. Key UAE Defense Cooperation with Asia (2023-2025)

Description	
<p>July 2025</p>	<p>India and the UAE reaffirmed their commitment to strengthening bilateral defence cooperation during the 13th India-UAE Joint Defence Cooperation Committee (JDCC) meeting. The two sides agreed to enhance military training cooperation and discussed their respective training requirements. India offered to provide customised training courses tailored to the UAE's needs.</p>
<p>June 2024</p>	<p>China and the United Arab Emirates have emphasised a readiness to exchange experiences on defence and security, with a view to upgrading the capacities of military personnel and security institutions in both countries.</p>
<p>January 2024</p>	<p>The Government of Japan and the Government of the United Arab Emirates (UAE) signed an agreement to establish a legal framework for the handling of defense equipment and technology to be transferred between the two countries, with the aim of strengthening joint research, development and production of defense equipment and technology which both the governments of Japan and the UAE take part in, as well as bilateral cooperation in the field of security and defense.</p>
<p>May 2023</p>	<p>The UAE and Japan signed a defence cooperation agreement in the presence of several of the Ministry of Defence top-brass. The agreement aimed to carry out cooperative research, development, and production projects, strengthen bilateral ties, and cooperate more broadly, particularly in the military and defence industries.</p>
<p>April 2025</p>	<p>India proposed offering its indigenous Akash air defense missile system to the UAE, aiming to enhance bilateral defense cooperation. Both nations are keen to strengthen collaboration through military exercises, training, defense-industrial projects, and technology transfer.</p>
<p>August 2025</p>	<p>The UAE initiated negotiations with South Korea to purchase KF-21 Boramae and FA-50 fighter jets, reflecting a deepening defense partnership between the two nations.</p>
<p>April 2025</p>	<p>The UAE and South Korea conducted a joint air defense exercise on Emirati territory, involving the South Korean Cheongung-II medium-range surface-to-air missile system. This marks the first publicly confirmed instance of operational integration of this system in a Middle Eastern setting.</p>
<p>September 2025</p>	<p>The UAE's Minister of State for Defense Affairs met with Kazakhstan's President Tokayev to discuss expanded military cooperation, including sharing expertise in advanced technologies and innovation.</p>
<p>December 2024</p>	<p>Japan and the UAE held a joint workshop in the UAE to promote cooperation in the space sector. The workshop aimed to enhance bilateral collaboration in space activities for peaceful purposes.</p>



## 8.2 Arms Trade, Joint Exercises, and Strategic Alliances

- **Saudi Arabia**

Saudi Arabia remains a key player in regional defense partnership, actively engaging in arms trade and joint military exercises to strengthen strategic alliances. The Kingdom’s defense procurement is evolving from traditional purchases toward collaborative manufacturing and technology transfer, driven by the ambition to enhance operational readiness and self-reliance by 2030.

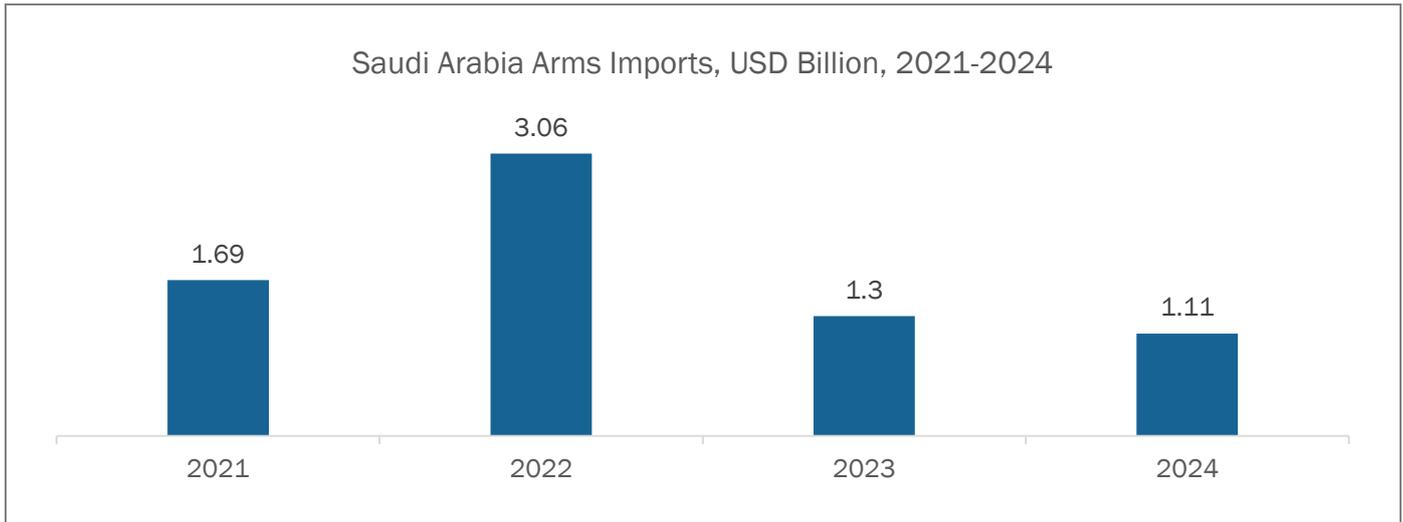
Figure 51. Arms Trade, Joint Exercises, and Strategic Alliances

	Development	Description
August 2025	India, Saudi Arabia are looking at joint manufacturing of military hardware	India and Saudi Arabia are considering joint manufacturing of military equipment, signaling stronger defence and strategic ties. Saudi Arabia aims to localise 50% of its defence spending under Vision 2030, aligning with Make in India initiative.
May 2025	US agreed to sell Saudi Arabia US\$142 billion arms package	The administration of US says that Saudi Arabia will invest US\$ 600 billion in the United States, including through technology partnerships and a weapons sales agreement worth US\$142 billion.
January 2025	Türkiye reportedly targets US\$6 billion defense deal with Saudi Arabia	Türkiye aims to finalize a US\$6 billion defense agreement with Saudi Arabia, covering warships, tanks and missile systems. The deal would extend cooperation to include the Altay main battle tank and missile defense systems.

## 8.2.1.1 Saudi Arabia - Arms Imports

Arms transfers cover the supply of military weapons through sales, aid, gifts, and those made through manufacturing licenses. Saudi Arabia's arms import peak in 2022 at US\$ 3.06 billion, nearly doubling from 1.69 billion in 2021, reflecting a period of intensified procurement likely driven by urgent modernization efforts and regional security dynamics. However, this surge is followed by a significant decline in 2023 to 1.3 billion and a further drop to 1.11 billion in 2024, suggesting a strategic shift towards integrating recent acquisitions and accelerating defense localization under Vision 2030. This downward trend highlights Saudi Arabia's growing focus on developing domestic military industries and reducing dependency on foreign arms imports while maintaining defense readiness.

Figure 52. Saudi Arabia - Arms Imports



Source: Trading Economics, The World Bank Group, and Stockholm International Peace Research Institute

In 2024, Saudi Arabia accounted for 6.8% of total global arms imports, making it one of the world's largest defense equipment buyers. The Kingdom's defense procurement strategy continues to focus on strengthening its military capabilities and supporting Vision 2030 goals of modernizing its armed forces. The United States remains Saudi Arabia's top defense supplier, providing advanced aircraft, missile systems, and defense technologies. Spain and France follow as key partners, supplying naval vessels, aircraft, and maintenance support systems.

Figure 53. Saudi Arabia - Arms Imports



Source: Stockholm International Peace Research Institute (SIPRI)

- **UAE**

The UAE has adopted a highly diversified defense procurement strategy, driven by a desire for self-reliance, regional leadership, and technological innovation. EDGE is now a top 25 global defense firm, underscoring the country's ambition to transition from buyer to global supplier.

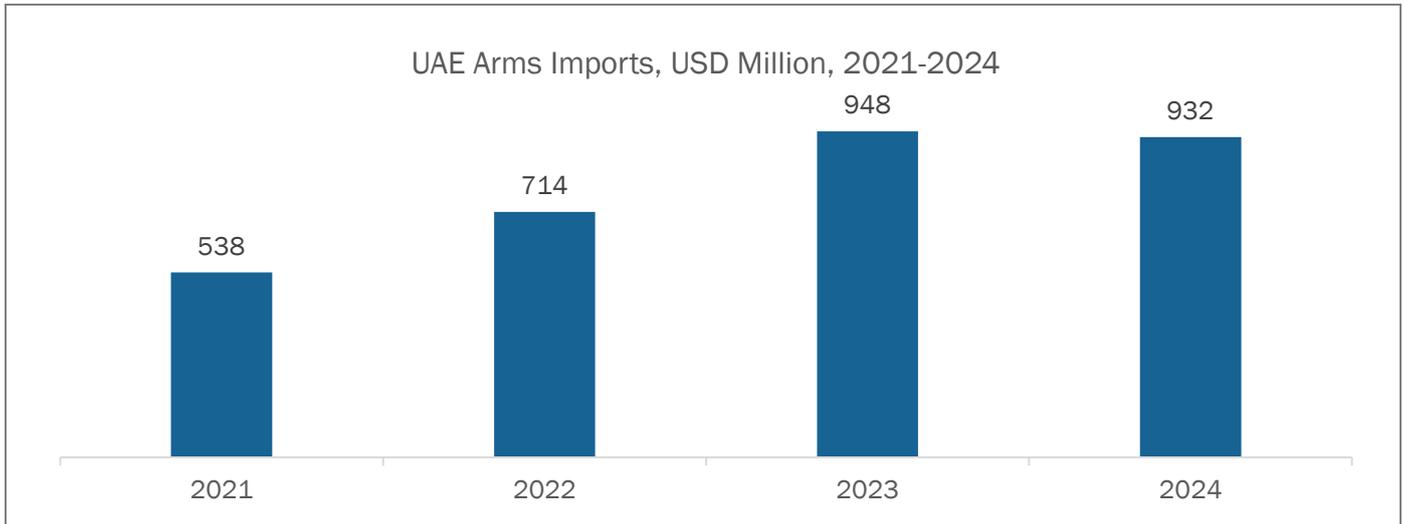
Figure 54. Arms Trade, Joint Exercises, and Strategic Alliances

Description	
<p>May 2025</p>	<p>The US State Department notified Congress of two proposed arms sales to the United Arab Emirates totaling an estimated US\$1.45 billion. The first sale, worth US\$1.32 billion, includes six CH-47F Block II Chinook helicopters and a wide range of support equipment such as engines, missile warning systems, machine guns and in-flight refueling capabilities. The second proposed sale, valued at US\$ 130 million, involves F-16 sustainment and spare parts.</p>
<p>October 2025</p>	<p>UAE security forces, alongside eight nations, have employed a joint simulation exercise that aims to prevent criminals from exploiting advanced technologies for illicit activities, including human and arms trafficking. Organized by the General Secretariat of the International Security Alliance, headquartered in Abu Dhabi, ISALEX 3.0 includes the participation of forces from Bahrain, Slovakia, Senegal, France, Spain, Italy, Morocco and Singapore.</p>
<p>October 2025</p>	<p>The UAE and Benin recently strengthened their political and defence partnership following a series of high-level diplomatic engagements. The agreement reflects a shared ambition to enhance bilateral cooperation in security matters and strengthen institutional links between their respective defence establishments.</p>
<p>July 2025</p>	<p>India and the United Arab Emirates (UAE) reaffirmed their commitment to strengthening bilateral defence cooperation during the 13th India-UAE Joint Defence Cooperation Committee (JDCC) meeting. The two sides agreed to elevate defence ties to match the growing momentum in areas such as trade, investment, and social relations, the Defence Ministry said in a statement.</p>

## 8.2.1.2 UAE - Arms Imports

UAE's arms imports have shown a steady and consistent upward trend from 2021 to 2024, rising from US\$ 538 million in 2021 to an estimated US\$932 million in 2024. This gradual increase reflects the UAE's ongoing efforts to modernize their defense capabilities through measured procurement, focusing on advanced technologies and diversified suppliers. The UAE's steady growth suggests a more sustained and planned approach to defense acquisitions, complementing their strong emphasis on developing indigenous defense industries through entities such as EDGE Group.

Figure 55. UAE - Arms Imports



Source: Trading Economics, The World Bank Group, and Stockholm International Peace Research Institute

Between 2020 and 2024, the United Arab Emirates (UAE) accounted for 2.6% of global arms imports, highlighting its continued importance as a key defense market in the Middle East. The country's top three suppliers— the United States, France, and Turkey— reflect a deliberate strategy of balancing long-standing partnerships with Western allies while expanding ties with emerging defense producers. The U.S. remains the UAE's primary source of advanced systems such as aircraft, missiles, and defense technologies, while France has provided naval and aerospace platforms. Turkey's growing role shows the UAE's interest in diversifying suppliers and accessing cost-effective, regionally developed technologies like drones and armored vehicles.

Figure 56. UAE - Arms Imports



Source: Stockholm International Peace Research Institute (SIPRI)

## 8.3 Positioning in Global Defense and Aerospace Markets

- **Military Expenditure**

Saudi Arabia ranks 7th globally in military expenditure in 2024, maintaining a prominent position among the world's top defense spenders. With a military spending of USD 80.3 billion, the Kingdom demonstrates their commitment to defense modernization and regional security. Saudi Arabia's military spending as a share of GDP

is 7.3%, the highest among the top-ranked countries listed and significantly above the global averages. This level of expenditure highlights the Kingdom's strategic prioritization of defense and regional security amid a complex geopolitical environment. In the long run, sustaining such a high military spending ratio implies a strong commitment to maintaining advanced capabilities, deterrence, and rapid modernization of armed forces.

Figure 57. Military Expenditure, 2024

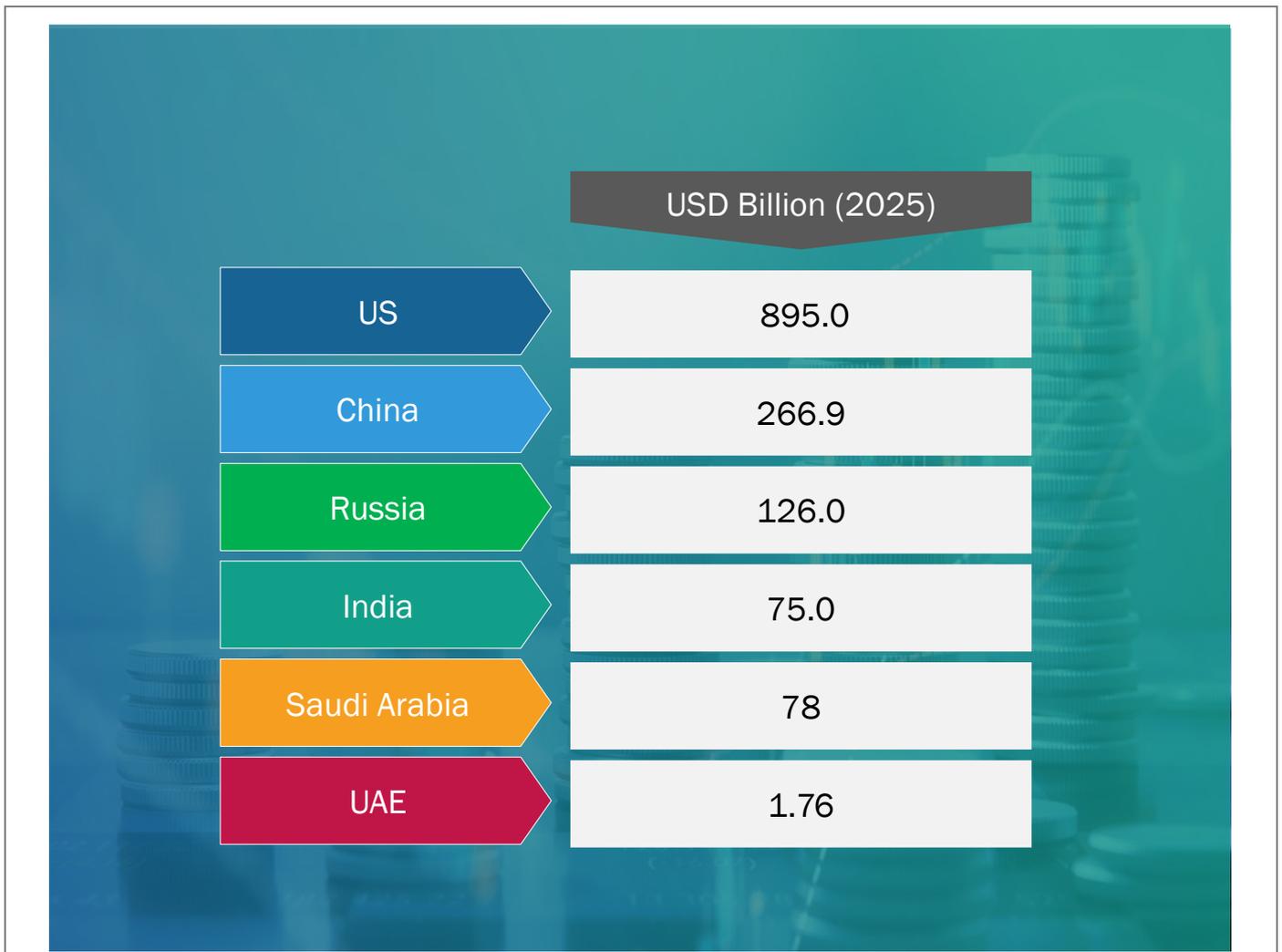
	Rank 2024	Rank 2023	2024 Military Spending (USD Billion)	Spending as a share of GDP (%) 2024
US	1	1	997	3.4%
China	2	2	314	1.7%
Russia	3	3	149	7.1%
Germany	4	7	88.5	1.9%
India	5	4	86.1	2.3%
UK	6	6	81.8	2.3%
Saudi Arabia	7	5	80.3	7.1%

Source: *Sipri.org*

- **Defense Budget**

The United States leads with a massive USD 895 billion, reflecting its continued dominance in global defense spending, driven by technological innovation, modernization programs, and global security commitments. China, with USD 266.9 billion, remains the second-largest spender, focusing on expanding its military capabilities, especially in naval, space, and cyber domains. Russia follows with USD 126 billion, maintaining strong investment to sustain its defense operations and strategic presence. Among emerging powers, India allocates USD 75 billion, emphasizing indigenous defense manufacturing and modernization of its armed forces. Saudi Arabia, with USD 78 billion, continues to invest heavily in defense to enhance regional security and develop its local defense industry under Vision 2030. The UAE, though smaller in scale at USD 1.76 billion, continues to focus on targeted modernization, advanced technology adoption, and strategic partnerships to maximize defense efficiency.

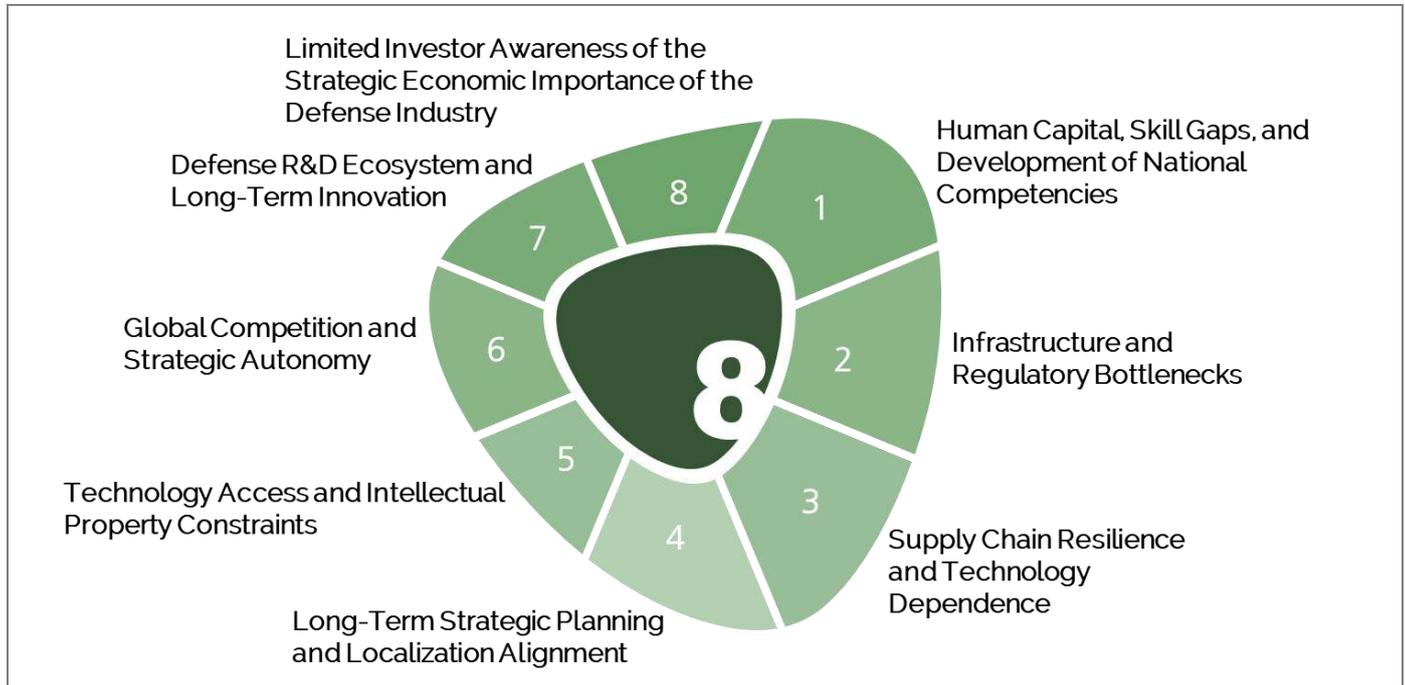
Figure 58. Defense Budget, 2025



Source: World Directory of Modern Military Aircraft, Global FirePower, World Bank Group, UAE Ministry of Finance

## 9. Challenges and Opportunities

### 9.1 Challenges



- **Human Capital, Skill Gaps, and Development of National Competencies**

Both Saudi Arabia and the UAE face ongoing shortages of specialized talent in advanced defense sectors such as artificial intelligence, cybersecurity, aerospace engineering, and autonomous systems. While initiatives like Saudi Arabia's Military Industries Scholarship Program (MISP) and Human Capability Development Program (HCDP), along with the UAE's EDGE Learning & Innovation Factory and Tawazun's Workforce Development Programs, have made important progress, challenges remain around talent retention, competitive compensation, and career mobility compared to mature defense markets. A critical issue lies in balancing ambitious localization targets—over 50–60% by 2030—with the limited pool of qualified local engineers and scientists, which slows technology transfer and indigenous production. To overcome these constraints, there is a pressing need to build a self-sustaining defense knowledge ecosystem. This ecosystem would foster new generations of scientists, engineers, and technicians who can lead innovation locally rather than relying primarily on foreign expertise. Achieving this requires stronger collaboration between defense ministries, academia, research centers, and private industry, linking education with applied defense research and manufacturing. Both countries have started such efforts, with Saudi Arabia partnering with the Ministry of Education and international institutions to establish joint laboratories and technical programs, and the UAE pursuing similar paths through EDGE and Tawazun initiatives. However, scalability and integration challenges remain, and without deeper alignment between education, industry, and government, human capital limitations could continue to hinder innovation and long-term operational sustainability.

- **Infrastructure and Regulatory Bottlenecks**

Although both countries have significantly invested in industrial and technological infrastructure, regulatory and institutional frictions continue to delay project execution and foreign participation. Saudi Arabia's industrial clusters under GAMI and the Saudi Industrial Development Fund (SIDF) provide capital and facilities, but investors often face extended licensing and approval processes. The UAE, while more agile, still confronts fragmentation in certification standards and cybersecurity compliance across entities.

Rapid technological transformation, especially in dual-use R&D, AI integration, and additive manufacturing — demands faster regulatory adaptation. The creation of Saudi Arabia's Military Industry Marketplace (MIM) and the UAE's Defense and Security Industry Strategy are steps toward improving transparency and engagement, yet both frameworks require further streamlining to align with international standards and accelerate foreign direct investment (FDI) inflows.

- **Supply Chain Resilience and Technology Dependence**

Both Saudi Arabia and the UAE remain heavily dependent on imported components, raw materials, and subsystems for their defense manufacturing, exposing their industries to global supply chain disruptions and technology transfer restrictions. Despite major localization initiatives, critical technologies such as advanced avionics, propulsion systems, electronic warfare modules, and microelectronics are still sourced externally primarily from the U.S. and Europe. Recent geopolitical shifts, export-control regulations (like ITAR), and logistics challenges from global conflicts have underscored the vulnerability of this dependence. For example, delays in the delivery of aerospace parts and munitions during the 2022–2024 global supply chain crisis disrupted several regional programs. Additionally, limited local Tier-2 and Tier-3 suppliers constrain the scalability of indigenous production, as domestic firms often rely on foreign intermediaries for specialized inputs.

- **Long-Term Strategic Planning and Localization Alignment**

A key challenge for both Saudi Arabia and the UAE lies in establishing long-term defense planning frameworks that align with rapidly changing global military and technological trends. The pace of innovation in next-generation systems—such as unmanned platforms, quantum technologies, and AI-driven command systems—requires defense localization plans to remain agile and adaptive. In Saudi Arabia, sustaining a clear roadmap under Vision 2030 depends on continuous evaluation of evolving threat environments, technology cycles, and industrial capabilities. Without an integrated planning mechanism that links defense procurement, R&D priorities, and industrial development goals, localization efforts risk becoming fragmented or misaligned with future operational needs.

- **Technology Access and Intellectual Property Constraints**

Securing access to advanced technologies and intellectual property (IP) remains one of the most complex challenges facing both nations' defense industries. Restrictions imposed by export controls, proprietary systems, and licensing terms often limit the depth of technology transfer and local co-production. Global suppliers are cautious about sharing core IP related to propulsion, radar systems, and electronic warfare technologies, citing national security and competitive concerns. As a result, Saudi Arabia and the UAE are compelled to negotiate multi-layered partnerships and offset agreements to gradually build indigenous capabilities. Developing legal frameworks and joint ventures that protect original equipment manufacturers (OEMs) while enabling local adaptation will be critical to achieving true industrial sovereignty.

- **Global Competition and Strategic Autonomy**

Both nations face growing competition from other emerging defense hubs such as South Korea, Türkiye, and India, which are rapidly expanding their export capacities and industrial ecosystems. Competing for the same technology partnerships, investments, and talent pools intensifies the challenge of maintaining a strategic edge. Moreover, balancing defense autonomy with international cooperation is delicate—overdependence on any single supplier risks geopolitical vulnerability, while excessive localization without technological readiness may strain budgets and timelines.

- **Defense R&D Ecosystem and Long-Term Innovation**

Building an advanced and sustainable defense research and development (R&D) ecosystem represents a core challenge for both the Kingdom of Saudi Arabia and the United Arab Emirates, particularly as they seek to move from technology transfer toward indigenous development and ownership of intellectual property. Although national defense entities have established research units and development centers, the level of integration with leading global research ecosystems still requires strengthening, whether in terms of long-term R&D expenditure, attraction of international scientists and experts, or participation in global defense innovation networks.

Achieving technological sustainability requires the establishment of world-class centers of excellence based on strategic partnerships with top universities, specialized research institutes, and leading international defense companies. Such collaboration is essential to localize next-generation technologies in areas such as military

artificial intelligence, unmanned systems, advanced electronics, and composite materials. In the absence of an integrated R&D ecosystem with clear governance, stable funding, and strong linkages between academic research and industrial application, reliance on external innovation may persist, limiting the achievement of technological sovereignty and long-term competitiveness of the defense industries.

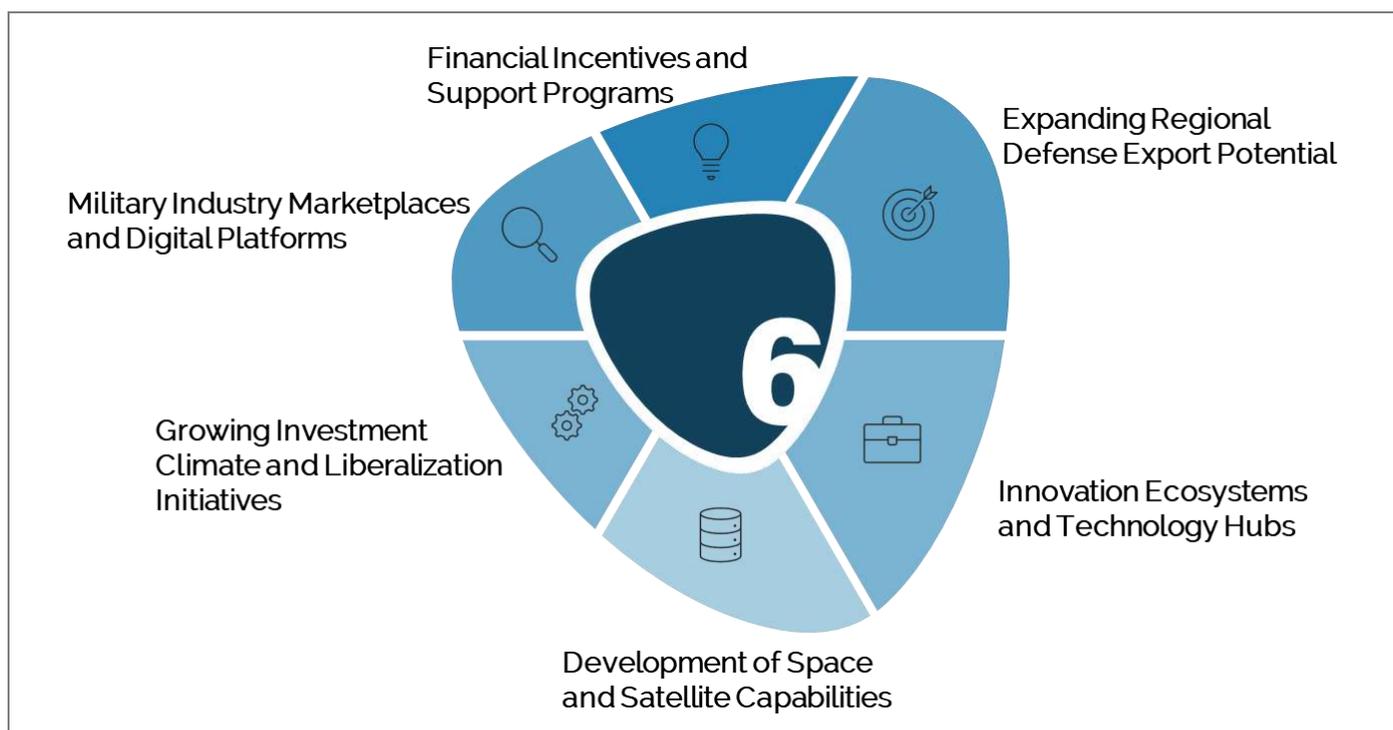
- **Limited Investor Awareness of the Strategic Economic Importance of the Defense Industry**

The defense industrial sector in both Saudi Arabia and the UAE also faces a challenge related to limited awareness among segments of local and international investors of its growing economic significance. The sector is no longer confined to meeting security requirements; it has become a key driver of advanced technology transfer, high-value industrial localization, quality job creation, and the strengthening of national value chains.

Despite the availability of government incentives, financing programs, and localization initiatives, the specific nature of defense industries, long investment cycles, and high regulatory and compliance requirements continue to deter large-scale private sector participation. In addition, limited visibility of investment opportunities and the lack of specialized platforms to promote defense projects reduce the sector's attractiveness compared to other industrial fields.

Addressing this challenge requires intensified awareness efforts, clearer communication of the long-term economic returns of defense industries, development of dedicated investment platforms, showcasing of local success stories, and the design of partnership and financing frameworks that reduce risk and position the defense sector as a core pillar of industrial and economic diversification in both countries.

## 9.2 Opportunities



- **Expanding Regional Defense Export Potential**

As Saudi Arabia and the UAE build up their indigenous manufacturing capabilities and achieve higher localization, they are uniquely positioned to become regional defense exporters. Leveraging geographic advantages and political ties across the Middle East, North Africa, and South Asia, both countries can tap into growing demand from allied nations seeking advanced but cost-effective defense solutions. Developing competitive export-ready products, backed by government-to-government agreements, can diversify revenue streams and boost economic resilience.

- **Innovation Ecosystems and Technology Hubs**

Both countries are actively developing innovation hubs and specialized centers to foster research, development, and the adoption of emerging technologies. The UAE's Tawazun Quality and Conformity Center and national AI strategies promote cross-sector innovation across aerospace, cyber security, and autonomous systems. Saudi Arabia's industrial cities and R&D clusters offer supportive environments for startups and multinational defense firms alike. These ecosystems encourage collaboration among government, academia, and industry, driving technological innovation and commercialization. Expanding these hubs will further establish the UAE and Saudi Arabia as regional leaders in defense technology and attract global investments and talent.

- **Development of Space and Satellite Capabilities**

Both Saudi Arabia and the UAE are rapidly expanding their space programs and satellite manufacturing as strategic national priorities. Defense applications include secure satellite communications, surveillance, navigation, and early warning systems. The growth of national space agencies and partnerships with global aerospace firms open opportunities for advanced R&D, private-sector participation, and integration of space-based assets into defense operations.

- **Growing Investment Climate and Liberalization Initiatives**

Saudi Arabia and the UAE are actively improving their investment environments to attract local and foreign defense investors. Saudi Arabia has introduced reforms such as 100% foreign ownership in the military sector

and simplified licensing processes, leading to a significant increase in defense businesses operating in the Kingdom. Similarly, the UAE continues to enhance ease of doing business with investor-friendly policies, streamlined regulations, and dedicated economic zones that encourage private sector participation in high-tech defense industries. These measures create fertile ground for expanding defense investments in both countries.

- **Military Industry Marketplaces and Digital Platforms**

Saudi Arabia's Military Industry Marketplace (MIM) and similar digital initiatives in the UAE provide centralized platforms for connecting investors, suppliers, and government stakeholders. These marketplaces improve supply chain visibility and access to investment opportunities across maintenance, repair, electronics, and manufacturing sectors. By facilitating efficient collaboration between local and international players, these platforms accelerate the growth of indigenous defense industries and improve integration across the regional defense ecosystem.

- **Financial Incentives and Support Programs**

Both countries offer a range of financial and non-financial incentives to support defense sector growth. Saudi Arabia's incentives include zero VAT on military goods, concessional financing, increased advance payments, industrial lands, and educational grants tied to specialized training programs. The UAE also provides investment incentives, tax benefits, and workforce development initiatives through entities like Tawazun and EDGE, designed to foster innovation and attract strategic partners. Together, these incentives lower entry barriers and enable sustainable investment growth in defense manufacturing and services.

## 10. Future Outlook and Strategic Recommendations

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### 10.1 Future Outlook

The defense landscapes of Saudi Arabia and the UAE are poised for transformative growth, driven by the rapid evolution of emerging technologies and shifting geopolitical dynamics in the Middle East and beyond. Over the next decade, investment in AI, autonomous platforms, cyber security, space capabilities, and next-generation aerospace systems will accelerate significantly, underpinning a shift toward multi-domain operational architectures that emphasize agility, resilience, and real-time decision-making.

**Localization:** Localization efforts are expected to deepen, supported by government initiatives such as Saudi Arabia's Vision 2030 and the UAE's National Advanced Sciences Agenda. These frameworks encourage expanding domestic manufacturing, research and development, and supply chain resilience, reducing dependence on foreign suppliers. Saudi Arabia's defense budget to reach USD 78 billion in 2025 with plans to localize over 50% of defense spending by 2030, reflecting a strong commitment to self-reliance. Simultaneously, talent development will remain central, with continued investment in education, vocational training, and international partnerships ensuring a pipeline of skilled professionals equipped for emerging defense technologies.

**Government support:** UAE's strong government support, including initiatives like the UAE Space Program and the Defense Innovation Program, is creating major opportunities in advanced aerospace manufacturing and maintenance, repair, and overhaul (MRO) services. With rising demand for aircraft, drones, and defense systems, there is a growing need for high-quality local production and servicing capabilities. Companies investing in modern manufacturing technologies, AI-driven maintenance solutions, and skilled workforce development can benefit from long-term contracts, government partnerships, and the country's ambition to become a regional hub for aviation and defense innovation.

**Focus on Investment Opportunities:** In addition, Saudi Arabia's growing focus on homegrown innovation in defense—especially in UAVs, radar systems, and AI-driven technologies—presents strong business and investment potential. With government-backed research centers and companies like SAMI and AEC leading the development of advanced products such as the eBARIQ UAV and Al-Rasid radar system, the Kingdom is rapidly building its own defense technology ecosystem. This creates opportunities for local and international firms to collaborate in R&D, component manufacturing, AI integration, and technology transfer, supporting Saudi Arabia's Vision 2030 goal of achieving defense self-sufficiency and global competitiveness in advanced military systems.

**Green Aviation:** Focus on green aviation, energy-efficient defense systems, and responsible manufacturing practices. Middle East governments are positioning themselves as adopters of sustainable aviation fuel (SAF) initiatives, with the UAE targeting 700 million liters of SAF production annually by 2030 and Saudi Arabia building infrastructure to support SAF development as part of megaprojects such as NEOM.

### 10.2 Strategic Recommendations

To secure a resilient and technologically advanced defense sector, Saudi Arabia and the UAE must adopt a multi-faceted strategy that emphasizes innovation, collaboration, human capital, regulatory agility, and sustainability:

#### Strengthening Indigenous Innovation

Both countries prioritize fostering indigenous research and development ecosystems. By supporting startups, academic institutions, and industry collaborations, the defense sectors will cultivate homegrown technologies tailored to regional security needs. Innovation hubs and technology parks will be critical for accelerating development and commercialization. For example, the UAE's establishment of the Tawazun Quality and Conformity Center serves as a platform for enhancing defense manufacturing standards and capabilities.

#### Enhancing Regional and Global Partnerships

Strategic collaborations with global defense leaders will continue facilitating technology transfer, joint ventures, and capacity building. These partnerships will enable knowledge sharing and access to advanced systems while enabling the UAE and Saudi Arabia to position themselves as defense export hubs. The UAE's collaboration with international firms in joint ventures like the local manufacturing of the R150 Remote Weapon Station exemplifies such strategic alliances.

### **Building Sustainable Human Capital**

Sustained focus on talent acquisition, upskilling, and retention will underpin future growth. Expanding STEM education, professional training programs, and competitive career pathways will ensure a resilient workforce capable of adapting to rapidly evolving technologies. Saudi Arabia's Military Industries Scholarship Program (MISP) and Human Capability Development Program (HCDP) are pivotal in aligning educational outcomes with defense industry needs.

### **Modernizing Infrastructure and Regulatory Frameworks**

Continued investment in advanced testing facilities, digital infrastructure, and streamlined regulatory environments will foster innovation and attract foreign investment. These measures will improve efficiency and support the rapid deployment of new technologies. Saudi Arabia's Military Industry Marketplace (MIM) aims to simplify supply chain engagement, while the UAE's regulatory reforms focus on enhancing transparency and reducing bureaucratic hurdles.

## 11. Appendix

### 11.1 Glossary

Abbreviation	Expansion
AFPO	Armed Forces Procurement Office
AI	Artificial Intelligence
DSDF	Defense and Security Development Fund
FDI	Foreign Direct Investment
GAMI	General Authority for Military Industries
GCAF	General Command of the Armed Forces
IPP	Industrial Participation Program
KSA	Kingdom of Saudi Arabia
MoD	Ministry of Defense
MOU	Memorandum of Understanding
MRO	Maintenance, Repair, and Overhaul
OEM	Original Equipment Manufacturers
R&D	Research and Development
SAMI	Saudi Arabian Military Industries
SANG	Saudi Arabian National Guard
SIDF	Saudi Industrial Development Fund
SSA	Saudi Space Agency
TEC	Tawazun Economic Council
TEP	Tawazun Economic Program
THAAD	Terminal High Altitude Area Defense
ToT	Transfer of Technology
UAE	United Arab Emirates