The Saudi Arabian Military Industries (SAMI)

Shaul shay

April 2018

Saudi Arabia placed second in the world for highest military spending in 2017 and this year’s budget allocated around 210 billion riyals to the military sector. Despite this massive expenditure, the share of localized military spending does not exceed 5% of the kingdom’s current total spending on armament, maintenance and spare parts.¹

Beyond just being one of the greatest importers of military goods, the kingdom also wants to become one of the world’s largest weapons producers and is now investing in its own industry.

By 2030, Saudi Arabia hopes to be among the 25 largest arms producers in the world. But money alone does not guarantee that an industry will rise to world-class performance, it also takes the necessary know-how. For this, it is turning to U.S, U.K, Germany and other countries.

Maj. Gen. Eng. Attiya al-Malki, the General Director of the General Directorate of Local Manufacturing Support at the Saudi Ministry of Defense, pointed out that total number of the local manufactured parts in the past years did not exceed 182 items in 2010, but through the direction and support of the government, the number of products manufactured locally reached about 5,427 items in 2017, more than 65 million pieces of these items were made with more than 12 local projects in Saudi Arabia.²

He added that “Project contracts related to military industries impose a 50 percent nationalization ratio. Factories are also obligated to manufacture the items locally, instead of importing them, once the capabilities are acquired.” ³

Malki affirmed that military factories in Saudi Arabia are manufacturing high-quality advanced military parts and units, which are being exported abroad.⁴
With a strategic framework in place, the Saudi Arabian Military Industries (SAMI) aims to contribute around SR14 billion ($3.73 billion) directly to Saudi Arabia’s gross domestic product (GDP), increase the value of national exports by about SR5 billion, invest over SR6 billion for research and development, and create over 40,000 direct jobs locally, by the year 2030.

The Saudi Arabian Military Industries (SAMI)

Saudi Arabia’s Public Investment Fund (PIF) announced on May 17, 2017, the launch of a state-owned military industrial company aimed at contributing more than 14 billion riyals ($3.7 billion) to the Kingdom’s gross domestic product by 2030. The Saudi Arabian Military Industries (SAMI) is part of the kingdom’s 2030 Vision. The company will work in repair and maintenance of planes as well as in the manufacture of unmanned aircraft, according to the statement. Additionally, it will do work on military vehicles, ammunition, radar, communications systems and electronic warfare.

The company will seek to localize 50 percent of total government military spending in the Kingdom by the year 2030, up from just 2 percent now and will seek to provide over 40,000 jobs by 2030, the PIF - the kingdom’s top sovereign wealth fund - said in a statement. By partnering with universities, SAMI will provide students with apprenticeships and careers in cutting edge technologies, which were previously unavailable in the Kingdom.

SAMI’s four business units complement the Kingdom’s future military requirements and build on existing local capabilities. SAMI will establish companies through joint ventures with global original equipment manufacturers (OEMs), as well as cooperating with local military companies. It will consider creating new business units, to ensure the company is aligned with the latest developments in the military industries sector.

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SAMI designated, a German, Dr. Andreas Schwer, to become its chief executive officer. Schwer has served also on the management board of Airbus—particularly in the arms department—and in September 1, 2012, following a brief stay in the U.S., he joined the executive board of Rheinmetall Defense, where he was in charge of the Division Combat Systems department.

The new leadership by Schwer will drive Saudi Arabia closer to Europe and Schwer can possibly open doors for SAMI at the EU’s arms producers or their subsidiaries outside the EU.

Referring to the participation and achievements of the Saudi Arabian Military Industries (SAMI, Dr. Andreas Schwer, SAMI chief executive, said: “Saudi Arabia is one of the top five countries in the world in terms of military spending, and the establishment of SAMI was an ambitious step as part of the country’s strategy to localize and globalize its military manufacturing industry.”

Schwer said: “SAMI’s participation will open up doors for future long-term partnerships, laying the cornerstone for SAMI to localize 50 percent of government military spending, and become one of the top 25 military industry companies in the world.
The General Authority for Military Industries

During a cabinet meeting chaired by Saudi Crown Prince Mohammed bin Salman in Jeddah, in August 2017, the Council of Ministers instructed the establishment of the General Authority for Military Industries.\(^\text{13}\)

Its board of directors will be headed by Prince Mohammed bin Salman with members including the minister of energy, industry and mineral resources; the minister of finance; the minister of commerce and industry; the chairman of the board of the Saudi Company for Military Industries; representatives from the ministries of defense, interior and national guard; and three experts in the field, the report added.\(^\text{14}\)

The creation of the new authority came after Saudi’s Public Investment Fund (PIF) announced the launch of a state-owned military industrial company in May 2017.

The General Authority for Military Industries has been handed 11 tasks:\(^\text{15}\)

1. Proposing policies, strategies and regulations relevant to the military industries sector and complementary industries
2. Managing the military procurement operations of arms, ammunition, equipment, supplies, military uniforms, maintenance and operation contracts for arming the security and military authorities in the kingdom and participating in the examination and acceptance of products and services to ensure compliance with the required specifications
3. Issuing manufacturing licenses for the public and private sectors, local and external, for the establishment of military industries and complementary industries in the kingdom and establishing the relevant controls and procedures
4. Setting specifications for military industries and complementary industries
5. Establishing monitoring mechanisms for the military industry sector and its complementary industries and following up their application
6. Managing and developing the economic balance program for the military industries and negotiating with foreign companies to transfer technology and increase local content
7. Managing all research and development operations in the military industries, including the allocation of research and development budgets, technology transfer and management of research and development projects, utilizing research centers and universities – internal and external – and establishing research centers as needed
8. Coordinating with the relevant authorities to match the outputs of education and technical training with the needs of the military industries sector and working to attract technical expertise to the industry
9. Developing incentives for the development of the military industry sector
10. Supporting local manufacturers by transferring technology, taking into account the distribution of projects among local companies, promoting the sector internally and externally, contributing to the rehabilitation of local manufacturers, providing infrastructure and supporting the export of domestic military products.
11. Building strategic partnerships with the public and private sectors locally and internationally to achieve their objectives.
The Saudi Ministry of Defense announced the qualification of more than 90 Saudi factories in the field of military industries by international companies and products of the Saudi factories have been used by their armed forces and other forces outside the Kingdom, Maliki noted. In Saudi Arabia local factories provide more than six thousand types of products used by Saudi armed forces.\textsuperscript{16}

**Germany**

German manufacturers have promised to greatly help the Saudi armaments industry. Saudi Deputy Minister of Economic Affairs Mohammed al-Tuwaijri told Spiegel Online:

“We want to make Germany one of our main business partners. German companies have always been here, many of them have very close connections to Saudi Arabia. We want to expand that. The German mentality, which is world famous, has many fans. Everyone would like to be like Germany, so we also want to learn a lot from Germany”.\textsuperscript{17}

Politicians in Germany’s Green Party have highly criticized the nation’s exports to Saudi Arabia (which have significantly increased in the third quarter of 2017). The common objection the party offers is that Germany’s efforts could further escalate the war in Yemen and the power struggle between Saudi Arabia and Iran.\textsuperscript{18}

**Boeing**

Saudi Crown Prince Mohammed bin Salman patronized in Seattle on March 31, 2018, a signing ceremony for the establishment of a joint project aimed at localizing more than 55% of Saudi Arabia’s fixed-wing aircraft and helicopter maintenance, repairs and rehabilitation. The agreement also includes maintenance to weapon technologies and spare parts in order to achieve the goals set out in the kingdom’s Vision 2030, which states that 50 percent of Saudi Arabia’s military spending will be localized. The deal was signed by Ahmed Al-Khateeb, chairman of the board of directors of the Saudi Military Industries Company (SAMI) and Boeing CEO and chairman of board of directors Dennis Muilenburg.\textsuperscript{19}

**Lockheed Martin - Blackhawk helicopters**

A joint venture being pursued between the Kingdom’s defense industry and the American Lockheed Martin to build 150 Blackhawk helicopters with local employees.

The agreement to establish a joint venture — known as Rotary Aircraft Manufacturing Saudi Arabia (RAMSA) — was signed as part of the big package of defense industry deals announced during US President Donald Trump’s visit to the Kingdom in May 2017.

Alan Chinoda, the chief executive of Lockheed’s Saudi business, revealed the job creation package in an interview with Arab News ahead of the Armed Forces Exhibition for Diversity of Requirements and Capabilities (AFED), which opened in Riyadh on Sunday.
“We’ve created a joint venture to produce 150 Blackhawks in the Kingdom, which is a tremendous opportunity. It will create a whole new technology eco-system and will involve the transfer of technology as well as jobs. The project will create as many as 640 new technology jobs.\textsuperscript{20}

Saudi Agreement with Lockheed Martin to Locally Manufacture LGBs

Saudi Specialized Products Company (Wahaj), signed a teaming agreement with Lockheed Martin in Riyadh on March 1, 2018 to develop the company’s in-country production capability to co-manufacture Paveway II Plus Laser Guided Bombs (LGBs) in Saudi Arabia.

The agreement was signed at the Armed Forces Exhibition for Diversity of Requirements and Capabilities annual conference. Chairman of Wahaj Abdulrahman al-Saif affirmed that the agreement will consolidate the country’s domestic defense industry.\textsuperscript{21}

Raytheon Company and the Saudi Arabia Military Industries Company

Saudi Arabia, on May 20, 2017, Raytheon Company and the Saudi Arabia Military Industries Company, signed a Memorandum of Understanding to cooperate on defense-related projects and technology development.\textsuperscript{22}

As part of this new agreement, Raytheon announced plans to establish Raytheon Arabia, a Saudi legal entity wholly-owned by Raytheon that will focus on implementing programs to create indigenous defense, aerospace and security capabilities in the Kingdom. The new company will be based in Riyadh and is expected to include in-country program management, supply and sourcing capabilities, improved customer access and centralized accountability. These programs will positively impact Saudi and U.S. economies including job creation.\textsuperscript{23}

This partnership will contribute directly to the Kingdom of Saudi Arabia’s localized defense ecosystem with regional expert capabilities, and will provide a long-term foundation for Saudi Arabia’s economic development.\textsuperscript{24}

Rheinmetall Denel Munition Factory Opens in Saudi Arabia

On April 6, 2016, South African defense equipment manufacturer Rheinmetall Denel Munition (RDM) and Saudi Military Industries Corp. (SAMIC) have opened a joint weapons factory that produce mortars, artillery shells and aircraft-borne bombs weighing up to 2,000 pounds.\textsuperscript{25}

The facility, which is in the Al-Kharj military industrial complex south of Riyadh, was officially opened by South African President Jacob Zuma and Saudi Arabia’s Deputy Crown Prince Mohamed bin Salman during his state visit to the kingdom in April 2016.\textsuperscript{26}

According to SAMIC head Mohamed Al-Mady, the factory complex was built with the help of RDM and will specialize in the production of 60mm, 81mm and 120mm mortars as well as 105mm and 155mm artillery shells, mainly for use by the Saudi defense forces.\textsuperscript{27}
The factory has the capacity to produce 300 artillery shells and 600 mortar rounds per day. It was not immediately clear if any of the weapons produced by the partnership will be exported.  

A joint Aselsan-Military Industries Corporation (MIC) factory in Saudi Arabia

Turkey’s defense minister, Fikri Işık, paid a visit on February 3, 2017, to a joint Aselsan-Military Industries Corporation (MIC) factory committed to license manufacturing Aselsan’s software defined radios (SDR). The plant was opened in December 2016 and besides the transfer-of-technology to produce radio equipment, it also involves the training of Saudi engineers and technicians.  

The Aselsan-MIC facility is one of many Turkish-Saudi initiatives aimed at enhancing bilateral defense ties, especially in defense production. In fact, the SDR production is only one aspect of this joint venture. With Turkish assistance (presumably from Aselsan), Saudi Arabia developed its own radio waveforms (basically frequencies and modes) and secure software platform. These programs are carrying Saudi Arabia to the goal of potentially developing its own tactical data-link network.

SDRs are radios where some functions, such as signal processing, are done through software. Military-grade SDRs benefit from encryption and jam-resistant attributes (for example, frequency hopping). This hardware is essential in modern combat environments, which require wireless communications means to both perform well and be highly resistant to enemy electronic warfare jamming and hacking.

The Saudi Defense Electronics Company (SADEC)

In tandem, Aselsan signed an agreement with Taqnia, a large Saudi entity (with its own investment branch), to establish the Saudi DefenSe Electronics Company (SADEC) to collaborate on radar, electronic warfare (EW), and electro-optical solutions.

Sufficiency in domestic EW could allow Saudi Arabia to internally source subsystems for surface warships and special mission aircraft. It could also market these products to other markets, which will also benefit Aselsan considering it is a co-owner of these Saudi facilities.

Saudi Arabia’s drone program - “Saqr 1”.

King Abdulaziz City for Science and Technology (KACST) has unveiled on May 11, 2017, in Riyadh, a new strategic drone program called “Saqr 1”. KACST President Prince Turki bin Saud bin Mohammed stressed the highly advanced techniques used in this aircraft. He stated that "Saqr 1" is equipped with a KA-satellite communication system that gives superiority and privilege to this aircraft. It can fly for long range with the ability to carry missiles and guided bombs with laser.

Prince Turki also pointed out that the strategic drone program ("Saqr 1") is part of the city’s initiatives for the National Transformation Program, stemming from the Kingdom’s Vision 2030, which aims to maximize local technical content.
The aircraft has undergone several trials to ensure its readiness and performance. "Saqr 1" has successfully achieved a record by local and international standards for transfer and resettlement of unmanned aircraft.

During the latest visit to China by Saudi Arabia's King Salman bin Abdulaziz Al Saud from March 15 to March 18, 2017, the two countries signed deals worth as much as $65 billion in energy, culture, education and technology and a partnership agreement to manufacture drones.

In March 16, 2016, a partnership agreement, has been signed between the King Abdulaziz City for Science and Technology (KACST), with China Aerospace Science and Technology Corporation (CASC), which makes China's CH-4 unmanned aerial vehicle (UAV).

**The Saudi-Ukrainian electronic warfare aircraft (Antonov 132)**

Ukraine's state-owned enterprise Antonov, the Ukrainian designer and manufacturer of cargo and passenger planes, has presented on December 20, 2016, the first prototype of the new An-132, Saudi-Ukrainian electronic warfare and surveillance aircraft.

According to the designers, the new electronic warfare (EW) aircraft, which is based on the An-132 light multi-mission transport aircraft, can counter airborne warning and control system planes, air defense systems and manned and unmanned aircraft. It is still unclear who provides Saudi Arabia with the plane's radar and electronic warfare suit.34

The Saudi armed forces are expected to procure a minimum of six An-132s, four of which would be configured for search-and-rescue operations and two for electronic warfare (EW) operations.

On February 21, 2016, Mykhaylo Gvozdov, President of ANTONOV Company, and Ali Mohammed Al–Ghamdi, CEO of Saudi Arabian Taqnia Aeronautics Co., signed Agreement on cooperation for establishment in the Kingdom of Saudi Arabia of aircraft manufacturing complex and AN–132 production in cooperation with Antonov Company. 35

The aircraft production will take place at the Taqnia Aeronautics facility in Saudi Arabia, which is an element of the Kingdom’s diversification plan, realized by the King Abdulaziz City for Science and Technology (KACST) facility.36

The An-132, is a modernized variant of the An-32 cargo plane is going to have better capabilities when it comes to the carried payload, while the airframe is designed in a way which provides the aircraft with STOL capabilities, so important when the missions require to carry out unprepared runway operations.

In earlier reports, Turki Bin Saud Bin Mohammed Al-Saud, chairman of Taqnia Aeronautics and president of the King Abdulaziz City for Science and Technology, said that Saudi Arabia would own the intellectual property and engineering designs for the aircraft. Saudi qualified cadres would be trained by Antonov aircraft experts to develop their skills and expertise in this field.

The new An-132, electronic warfare (EW) aircraft will not replace the American E3, AWACS. The new EW air planes will be used mainly in tactical missions and will be a complimentary asset to the strategic capabilities of the E3. The new EW airplanes alongside the upgraded E3s are part of the modernization process of the Saudi Arabian armed forces in response to the growing Iranian threat in the region.
Saudi Arabia – Spain: the Avante 2200 corvettes deal

The Saudi Arabian Military Industries (SAMI) and Spanish firm Navantia on April 12, 2018, signed a Memorandum of Agreement (MoA) to create a joint venture that will manage and localize naval combat systems activity including integration and installation. The MoA was signed by Ahmed Al-Khateeb, Chairman of SAMI, and Esteban García Vilasánchez, Chairman of Navantia.

Spain and Saudi Arabia also inked a Letter of Intent (LoI) to design and build five Avante 2200 corvettes including Combat Management System, for the Royal Saudi Naval Forces (RSNF). The deal is estimated at 1.8 billion euros ($2.2 billion), and the construction would take five years. The construction of the vessels, which will be managed by Cadiz and Ferrol shipyards, would take five years and involve 6,000 direct and indirect workers.

The joint venture’s first engagement will be on the five Avante 2200 corvettes, but the new company will also be involved in future naval programs. Once operational, new joint venture (JV) will focus on program management and combat system integration and installation, system engineering, system architecture, hardware design, and software development, testing and verification, prototyping, simulation, and modeling.

The Armed Forces Exhibition to Support Local Manufacturing (AFED 2018)


Through this event, which is considered the greatest of its kind in the Middle East, the Ministry of Defense had the opportunity to showcase its capabilities in the manufacturing of parts and units needed by the armed forces.37

Through the exhibition, the ministry aims to support the nationalization of the spare parts industries, inform the private sector about the armed forces requirements, establish communication channels to coordinate among beneficiaries, armed forces, factories, local and international companies and research parties and form a long-term strategic relation with the private sector.38

General Abdul Rahman bin Saleh Al-Bunyan, chief of staff of the Saudi armed forces, inaugurated the defense exhibition on February 26, 2018 on behalf of Crown Prince Mohammed bin Salman.39

The Armed Forces Exhibition (AFED 2018) was attended by more than 68 international companies (European, American, Turkish, Korean and Chinese), which were keen on partnerships with Saudi factories.

The director of the local manufacturing support department at the Saudi Defense Ministry, Major General Attiyah al-Maliki said that: "Our aim is to establish partnerships between foreign companies and Saudi factories, which translates into three levels: transferring technology and knowledge, reducing supply times and achieving financial savings."40
Summary

In 2017, the deputy crown prince and defense minister, Prince Mohammed bin Salman, launched his Vision 2030 reform scheme to boost jobs and revenue to prepare for a future with lower oil income. Saudi Arabia’s Public Investment Fund (PIF) announced on May 17, 2017, the launch of a state-owned military industrial company. The Saudi Arabian Military Industries (SAMI) is part of the kingdom’s 2030 Vision.

The move could alter decades of practice in which Saudi Arabia, one of the world’s largest buyers of foreign arms and other Gulf Arab states recycled a major part of their oil wealth back into Western economies via arms purchases and investments.41

The Saudi Arabian Military Industries (SAMI) will produce armored vehicles, radars and ammunition for the kingdom's military. SAMI will employ tens of thousands Saudi nationals and should limit the need for expensive arms imports. It is also hoped the company will contribute $3.7 billion annually to the economy, and will be part of the kingdom's Saudi Vision 2030 diversification plans.

China is playing an increasingly bigger role in the international arms market, filling demands refused to be met by the USA. America refuses to sell its Predator and Reaper aerial vehicles (UAVs) beyond a select list of European nations, the UK being one of them. This has created a vacuum in the market, one that China is happy to fill. Barred from buying American drones, Saudi Arabia turned to China.

While military cooperation with the US remains very important, Saudi Arabia the world’s second-largest arms importer actively diversifies its security cooperation, so as to maximize its flexibility in responding to threats.

In recent years, security ties between China and Saudi Arabia have grown significantly. The two militaries held joint counter-terrorism exercises and Chinese navy vessels have visited the Saudi port of Jeddah.

China’s growing trade of drones with Saudi Arabia reflects the growing popularity of Chinese weapons, especially UAVs, on the global market, thanks to their comparatively low prices and technical advantages. The real aims behind the deals are an oil-hungry China being able to get more oil from the kingdom to sustain its domestic economic development, and Saudi Arabia improving its infrastructure with China’s technological aid. Saudi Arabia already uses combat drones in its conflict with Yemen. The CH-4 factory in Saudi Arabia would help satisfy Saudi Arabia’s desire for more CH-4 drones and would also sale drones and services for clients in the Middle East.

The localization of military industries is facing many challenges and obstacles, notably the lack of human resources and technical abilities, as well as weak cooperation between local factories in the Kingdom.

Saudi Arabia is making significant progress in the manufacturing of spare parts and military industries in the Kingdom, which has allowed significant savings through domestically manufactured products against imported ones. The savings - expected to be achieved by localizing 50 percent of the military spending amounting to 33 billion riyals ($8.8 bln) - is being re-injected into the Saudi economy.42
Notes

11. Josse Michels, Germany is helping its Middle Eastern partner become one of the world’s largest weapons manufacturers, The Trumpet, November 29, 2017.
12. Josse Michels, Germany is helping its Middle Eastern partner become one of the world’s largest weapons manufacturers, The Trumpet, November 29, 2017.
17. Josse Michels, Germany is helping its Middle Eastern partner become one of the world’s largest weapons manufacturers, The Trumpet, November 29, 2017.
18. Josse Michels, Germany is helping its Middle Eastern partner become one of the world’s largest weapons manufacturers, The Trumpet, November 29, 2017.
29. Turkish – Saudi defense production efforts showing results, Quwa, February 3, 2017.
30. Turkish – Saudi defense production efforts showing results, Quwa, February 3, 2017.
31. Turkish – Saudi defense production efforts showing results, Quwa, February 3, 2017.
34. First pictures show Saudi-Ukrainian electronic warfare aircraft, Al Arabiya, December 20, 2016.
35. Antonov.com
40. Saudi Arabia to save $8.8 bln by localizing military industries, Al Arabiya, March 2, 2018.
42 Saudi Arabia to save $8.8 bln by localizing military industries, Al Arabiya, March 2, 2018.