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Kuwait: Current Defence Inventory and Future Procurements



Although Kuwait's state revenues are feeling the effects of low oil prices, the Gulf Cooperation Council (GCC) still allocates significant amounts of funds to defence. According to several reports, at the beginning of 2016 the parliament of Kuwait approved a request by the government for 10 billion US dollars in additional funds for military spending during the next 10 years. This amount is expected to be used for the procurement of defence equipment. Due to the limited size of the local defence industry, such equipment will be sourced from abroad, creating several opportunities for foreign defence companies.

It should be stressed here, though, that the Kuwaiti government does not release systematically information regarding its defence budget.

The abovementioned increase should be perceived as part of the country's larger modernisation program, which aims to replace ageing military equipment. Under this context, Kuwait purchased on April 5, 2016 22 single-seat and 6 twin-seat Eurofighter Typhoons becoming the eighth customer in the programme and the third customer in the Gulf Region next to the Kingdom of Saudi Arabia and the Sultanate of Oman. Currently FA-18 consists the core of the country's combat aircraft fleet, as the country operates 40 such aircraft purchased in 1992. Additionally, the country operates a fleet of three KC 130J tanker aircraft, which among others, provides aerial refuelling to the FA-18s. Kuwait had also signed an agreement with Abu Dhabi Ship Building (ADSB) to build and supply landing crafts and high speed protection vessels worth over 260 million AED (70.8 million US dollars). The vessels will be the latest acquisition of Kuwaiti navy and will protect the country's territorial waters and maritime facilities. Kuwaiti Navy, currently operates the Um Al Maradim class, which is a derivative of DCN's Combattante I class small fast attack craft. The vessels key role is to carry out coastal defence operations and sea surveillance in Kuwait's EEZ (Exclusive Economic Zone). Deliveries of the vessels started in 1998 and were concluded in 2000, representing the first stage in Kuwait's naval rearmament after the losses suffered in Operation Desert Storm.

Armored Vehicle	No. of vehicles Operated	Country of Origin	In service with the Kuwaiti Army
S-600 APC	22	Australia	1998
Pandur APC	40	US Production Line	1999
PCZ-45 ALV	27+24	China	2001-2003
Panhard Véhicule Blindé Léger (VBL)	20	France	2009
TM-170	15-8	Germany	1993-2004
BMP-2and BMP-3	245	Russia	1994
MCV-80 Warrior	254	Great Britain	1997
Humvee	Unidentified	USA	Unidentified
M-88A2 HERCULES	14	USA	1996
M-113A3	46	USA	1995
M-1A2 Abrams	218	USA	1997

Finally, it should be noticed that within the next 10 years, Kuwait is expected to procure new armored vehicles and tanks. The main reason is that the majority of such vessels currently in service with the Kuwaiti army are in operational use for several years. Thus, they need more maintenance work which must be provided ad hoc. Additionally, it is worth mentioning that Kuwait operates military vehicles which were procured from several different countries. This diversity creates an increased need for MRO facilities as vehicles of different country of origin need different MRO processes.

Kuwait is deliberately trying to collectively enhance the defence capabilities and security of the GCC region. It is indicative that they purchased missile defence equipment in support of the US efforts to forge a joint GCC missile defence network for the Gulf. Under this context, Raytheon was awarded a \$523 million undefinitized contract action to upgrade the State of Kuwait's Patriot Air and Missile Defence Systems to the most modern configuration currently fielded.

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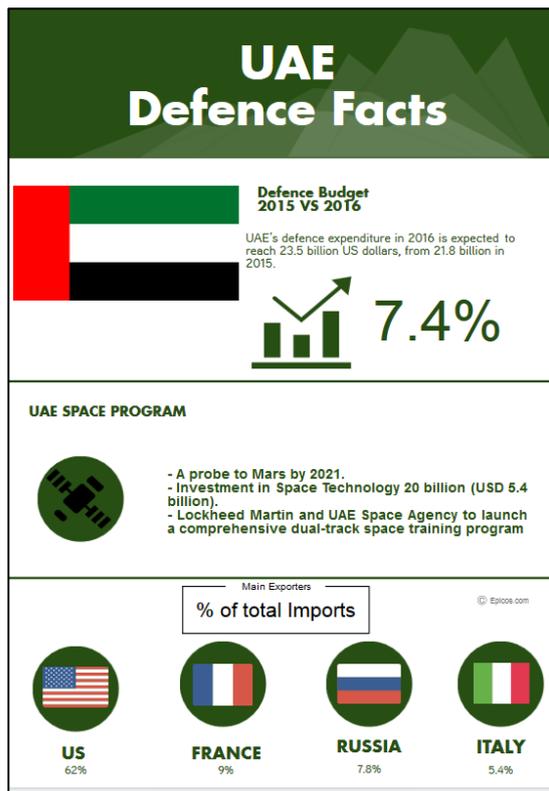
UAE: Defence Budget and Future Procurements



UAE armed forces have grown significantly over the years and currently there are equipped with some of the most modern and sophisticated weapon systems. In order to succeed this, UAE has allocated significant amount of funds in defence and security.

According to a report published by the US International Trade Administration, UAE’s defence expenditure in 2016 is expected to increase by 7.4% to reach approximately 23.5 billion US dollars, from 21.8 billion in 2015.

Despite the fact that UAE’s defence industry is devolving with fast pace, still the GCC country purchases defence equipment from a variety of foreign countries. The majority of defence equipment are purchased from US, as UAE is one of the largest export markets in the world for the US defence and security sector (62% of total defence imports of UAE), purchasing among others, F-16 aircraft as well as PATRIOT and Terminal High Altitude Air Defense (“THAAD”) systems. Other countries that export defence equipment to UAE are France (9% of total defence imports), Russia (7.8%) and Italy (5.4%).



UAE army is mainly equipped with US (Oshkosh M-ATV mine resistant ambush protected vehicles), Russian (BMP-3 infantry fighting vehicle) and French (Leclerc main battle tank) equipment. In 2015, UAE army was deployed to Yemen, intervening in support fighters loyal to the ousted regime of Abd Rabbuh Mansur Hadi, demonstrating high combat effectiveness.

On the other hand UAE air force is mainly equipped with US, UK and French equipment. UAE air force is currently operating, what can be characterised as one of the most technologically advanced F-16s, the Block 60 version, which is based on the F-16C/D Block 50/52 and has been developed especially for the United Arab Emirates (UAE). Additionally, they operate a Mirage 2000 reconnaissance variant, British

Hawk aircraft and a fleet of French helicopters.

Finally, the UAE navy is primarily concerned with coastal defence, this is the reason why it mainly maintains coastal patrol boats.

UAE army is in a constant process of modernisation and a significant amount of money is projected to be allocated in the procurement of new equipment in the years to come. The

air force is expected to receive the lion's share of the future procurements' budget, with land forces second, followed by the Navy. UAE will mainly focus on border control and cyber-security systems, space and reconnaissance, as well as in the modernization of telecom and Command and Control centres. Additionally, the GCC country will most probably seek to buy sophisticated and high-tech naval defence equipment and missile products and systems.

More specifically, UAE is reported to be interested in being a partner in the future in the F-35 Joint Strike Fighter (JSF). Additionally, the country is investing in space. In July 2014, UAE founded the UAE Space Agency and announced that they are planning to send a probe to Mars by 2021. Under this context, on June 26, 2016, Lockheed Martin announced the signing of a Memorandum of Understanding (MoU) with the UAE Space Agency to launch a comprehensive dual-track space training program in space fundamentals. The program should be considered as part of Lockheed Martin's growing collaboration with the UAE Space Agency. The UAE's investments in space technologies have already exceeded AED 20 billion (5.4 billion US dollars).

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Oman: Defence Budget and Military Capabilities

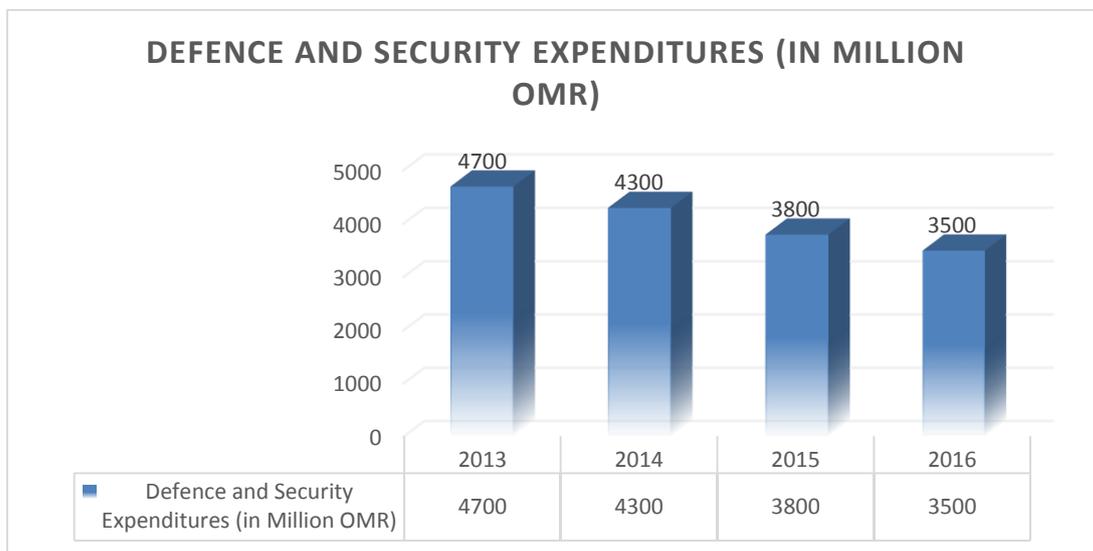
SULTANATE OF OMAN
MINISTRY OF DEFENSE



According to Oman's 2016 budget, spending on defence and national security has declined by 300 million riyal (approximately 780 million US dollars), reaching 3.5 billion riyal (approximately 9 billion US dollars). This should be largely attributed to the following oil prices, as Oman is heavily dependent on oil to fund its national budgets. However, the Gulf Cooperation Council (GCC) takes security seriously, something that is partly reflecting regional geopolitical challenges. It is indicative that defence and security absorbs approximately 28% of the total allocated expenditures. It should be noted here that the defence and security expenses are allocated under one item, including current, capital and construction expenses, as Omani authorities release only an aggregate figure, while no further details on defence spending are available.



DEFENCE AND SECURITY EXPENDITURES (IN MILLION OMR)



Source: Combined data from: Oman Arab Bank, Oman Budget 2016 & Sultanate of Oman, Ministry of Finance 2015, Guide to Reading the State's General Budget

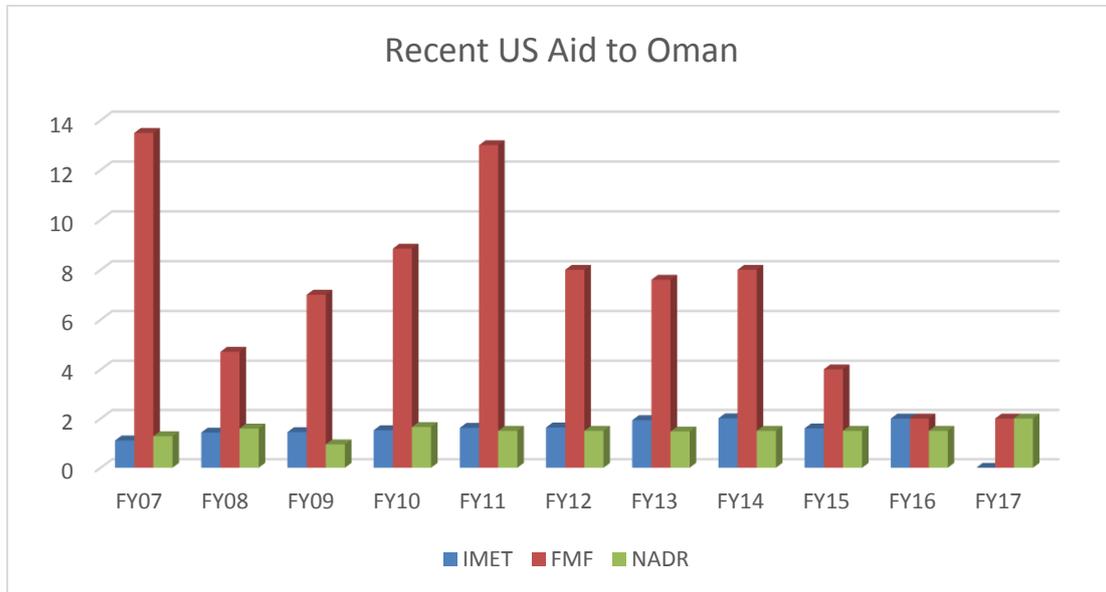
Oman maintains an army of approximately 45,000-person, one of the largest and best trained in the region. However it is also one of the least well equipped. Due to Oman's historic ties with the British military, Omani army is mainly equipped with British-made equipment. This close defence relationship, was reaffirmed in March 2016, when British defence Secretary Mr. Michael Fallon announced the intent to develop a joint venture between British defence company Babcock International and the Oman Drydock Company, which will help Oman to turn its new Duqm port into an international naval support centre.

Additionally, British company BAE Systems will supply 12 Typhoon and 8 Hawk Advanced Jet Trainer (AJT) aircraft to the Royal Air Force of Oman (RAFO), along with in-service support to its operational tasks. Deliveries will commence in 2017.

Apart from British-made equipment, Oman is also purchasing equipment from the USA. In January, 2014 Raytheon Company has received a direct commercial sales contract from Oman for the National Advanced Surface-to-Air Missile System (NASAMS). The award, valued at \$1.28 billion, includes ground support equipment, a full training package, and technical assistance.

As it is already mentioned, Omani army is one of the least well-equipped in the region. One of the reasons is the limited funds Oman allocates in defence and security. However, the GCC country has received small amounts of Foreign Military Financing (FMF) from US that have been used to purchase US-made equipment, in order to expand and modernize its arsenal.

Source: Congressional Research Service, *Oman: Reform, Security, and U.S. Policy*



Notes: IMET is International Military Education and Training; FMF is Foreign Military Financing; NADR is Nonproliferation, Anti-Terrorism, De-Mining and Related Programs, and includes ATA (Anti-Terrorism Assistance); EXBS (Export Control and Relate

The Royal Navy of Oman (RNO) is of strategic importance, mainly due to the fact that the country has to protect its long coast and ports in the Indian Ocean, as well as an important part of the Strait of Hormuz, a vital sea corridor through which most of the region's oil production is shipped to the outside world.

RNO operates, 3 Khareef Class corvettes, which are constructed by BAE Systems Surface Ships. The Khareef Class corvettes are equipped to defend against both surface and air threats with stealth features to operate undetected, an innovative hull design and electric propulsion. The ship is capable of undertaking a range of operations including coastal patrols, disaster relief, search and rescue, and deterrence operations.

Additionally, in January 2016, Singapore Technologies Marine Ltd. (ST Marine), the marine arm of Singapore Technologies Engineering Ltd. (ST Engineering), held the interim delivery and acceptance ceremony for the third Patrol Vessel (PV) and the naming ceremony for the fourth PV built for RNO. The contract for the design and build of the four Al-Ofouq class of PVs was awarded by the Omani Ministry of Defence in April 2012. With a total value of €534.8m, this was the largest defence export contract in ST Engineering's history. Finally, RNO purchased 2 High Speed Support Vessels (HSSVs) from the Australian-based global ship building company Austal. The value of the contract is approximately US\$124.9 million. In May 2016 RNO has officially taken delivery of the first of the two HSSVs.

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Jordan: Defence Budget and US Military Aid

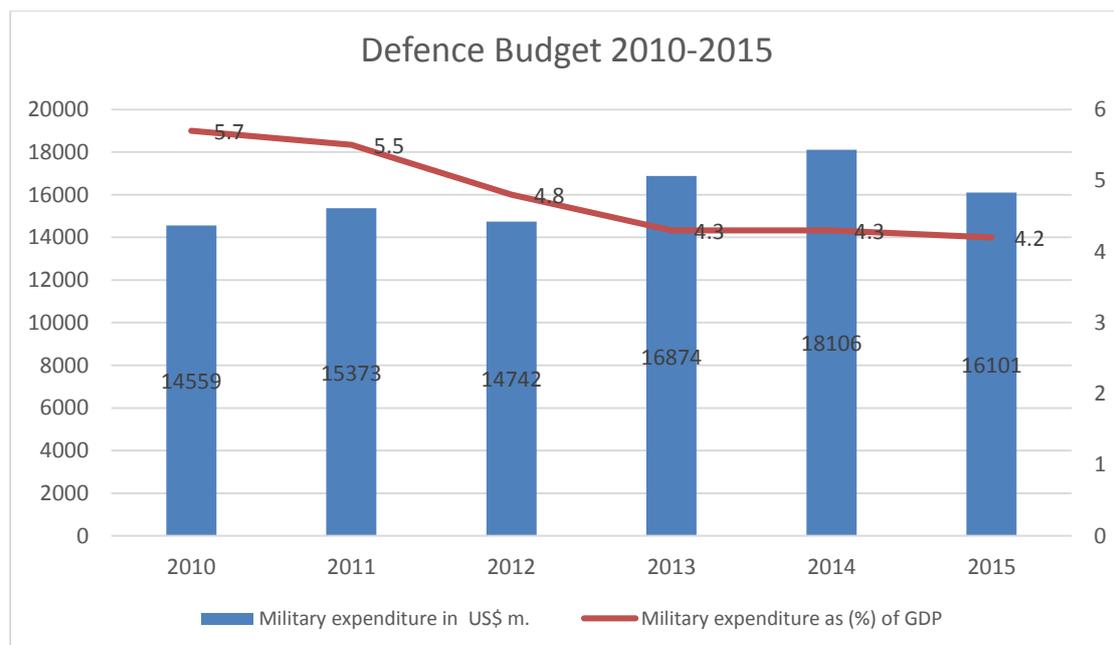


Jordan has found itself in the middle of an international humanitarian crisis that cannot be ignored anymore. As of January 2015, there were 621,937 registered Syrian refugees in the country. Additionally, Jordan, historically a heaven of peace in the middle of a rather turbulent area, is facing the threat of the Islamic state.

Jordan is already one of the four Arab countries taking part in airstrikes against the Islamic State as part of the US-led international coalition. In order to help Jordan, as of January 22, 2015, the United States provided nearly \$467 million in assistance to respond to the Syria humanitarian crisis. Additionally, the US have been providing to the Middle East-country, economic aid since 1951, and military aid since 1957. Total US aid to Jordan through FY2015 amounted to approximately \$15.83 billion. For 2016 it is expected that U.S. will provide \$450 million of military support to the country.

Likewise, the UK decided to grant a £2.5 million package to Jordan, of non-lethal equipment including transport vehicles, body armour, communications and IT equipment. Moreover, the UK has shaped throughout the years, a strong relationship with the Middle East country, providing a full spectrum of military assistance including training courses, deployment of short-term training teams and finally, execution of a number of major military exercises.

Jordan’s defence budget is relatively high in terms of percentage of the Gross Domestic Product (GDP) reaching 5%, in 2010. Nevertheless, the actual size of the Jordanian defence budget is relatively low. According to SIPRI (Stockholm International Peace Research Institute), in 2015 it was around 1.1 billion Dinars (approximately \$1.6 billion), leaving little room for major military acquisitions.



Source: SIPRI Database

Nevertheless, Jordanian army is well equipped, something that can be partly attributed to the fact that US is selling and donating, in a regular basis, defence equipment to Jordan. Foreign Military Financing (FMF) grants to the country have enabled its Air Force to maintain a modest fleet of F-16 fighters, as well as to purchase Advanced Medium Range Air-to-Air Missiles (AMRAAM) and Blackhawks. Additionally, through FMF grants Jordan acquired Javelin missiles, Hellfire missiles, High Mobility Artillery Rocket Systems, and night-vision devices.

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Epicos "Industrial Cooperation and Offset Projects"



Epicos "Industrial Cooperation and Offset Projects" provides a unique set of online tools enabling the structure, identification and implementation of comprehensive Offsets programs, through a searchable database. By introducing different offset projects and ideas proposed by local A&D industry it ensures the optimum cost for Prime Contractors and reassures that the priorities of local industry are fully met...

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Provision of mechanical and aeronautical engineering services for the design of structural parts and components for specific Unmanned Aerial Vehicle (UAV) system program



A company providing Mechanical and Aeronautical Engineering Design Services to the aeronautical sector is proposing, in the frame of an offset program, the cooperation with aerospace prime contractors for the provision of engineering services for the design of structural parts and components in the frame of a specific Unmanned Aerial Vehicle (UAV) system program.

[For Further Information Contact our ICO Department](#)

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Rugged mission data recording system for monitoring and debriefing applications in modern digital ground forces



A company with vast experience in industrial rugged computers development and production and video signal processing, is proposing the development of a new rugged mission data recording system to be used in several network centric battlefield applications providing continuous monitoring (multiple video and audio signals) and training (e.g. debriefing) applications. The recording system will interface with vehicle vectronics collecting and storing video and audio from crew members and various sensors providing advanced debriefing capabilities.

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Kuwait: Defence Industry



Currently, indigenous defence industrial capabilities are rather limited. Nevertheless, Kuwait as part of its economic diversification strategy works towards the expansion of the local defence industrial base. The main goal is the progressive production of a greater amount of military equipment in a bid to reduce foreign dependence and help with national industrialisation. In order to achieve this Kuwaiti authorities promote the creation of cooperative schemes with foreign partners. Through this process strategic partnerships between Kuwaiti investors and foreign entities have been formed leading to the import of sophisticated technologies to Kuwait.

Under this context, SELEX Galileo, a Finmeccanica Company, formed a Joint Venture (JV) with the Kuwaiti company Al Safwa Security and Defence Systems Co, with the scope to provide defence services to the Kuwait Armed Forces, initially in the field of Electronic Warfare (EW).

Additionally, it is worth mentioning that several local educational institutions have effective auspice agreements in place with leading educational and international training institutions, bringing educational programs to Kuwait that will enhance the educational background of Kuwaiti nationals in domains related to defence. One such case is the Australian College of Kuwait (ACK) which offers an Aircraft Maintenance Engineering Training program. ACK has been approved as a Part-147 Maintenance Training Organization, by the European Aviation Safety Agency (EASA), the Directorate General of Civil Aviation (DGCA) Kuwait and the General Civil Aviation Authority (GCAA), United Arab Emirates (UAE).

Another similar example is the courses Massachusetts University offers in Kuwait in fields such as engineering, business and science. The new partnership includes the Gulf University for Science and Technology (GUST) in the campus of which courses are held. Under the auspices of the program more than two dozen undergraduate and graduate degrees will be offered, beginning with:

- bachelor's and graduate degrees in engineering
- master's degree in business
- master's degree in computer science
- master's degree in education
- master's degree in security studies

More on that we should notice here that Kuwait allocates a significant amount of its annual budgets to defence. The real significance of this fact goes beyond the massive spending as it signals a unique growth opportunity for the country's defence industry through the implementation of the offset agreements generated by the purchase of defence equipment from foreign countries. Considering that roughly 30% of these funds are dedicated to capital expenditure, we can estimate that a rather huge amount of money can be redirected to the

local economies (through offsets) in order to further ameliorate their performance. Currently, Kuwait does not officially operate an offset program. The Kuwaiti offset program was officially suspended as of Sep 2014 and a new program is expected.

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UAE: Defence Industry, Technological Level and International Cooperation



As part of its economic diversification strategy the UAE government is working towards the expansion of the local defence industrial base. The main goal is the progressive production of a greater amount of military equipment in a bid to reduce foreign

dependence and help with national industrialisation. In order to achieve this, the indigenous defence industry rely on assistance from foreign companies to manufacture advanced and sophisticated defence equipment. Under this context, several joint ventures (JVs) between international companies and UAE-based entities have been created.

The main vehicle for the creation of such ventures, is offsets which are directed by the Tawazun Economic Program (UAE's industrial participation program), overseen by the Tawazun Economic Council. Tawazun was created in 2007 to develop ventures through industrial partnerships (offsets) and strategic investments that would add value to the UAE's industrial manufacturing sector across a number of areas: defence & aerospace, automotive, munitions, metals and technology.

Overall, up to February of 2015, through the UAE Offset Program, over 70 new local business ventures were successfully launched (4 of which have later become listed in the UAE Stock Markets), investing more than 10 Billion AED (USD 2.7 billion) in total. The range of activities of these companies varies from shipbuilding, to district cooling, to aircraft leasing, to fish farming, to healthcare, to agriculture, and even banking and education. Some of the most prominent such JVs created through the programme include:

Name of JV	Partners in the JV	Scope of Work
Advanced Military Maintenance Repair Overhaul Center (AMMROC)	Mubadala, Sikorsky and Lockheed Martin	Military aviation Maintenance, Repair and Overhaul (MRO)
Tawazun Dynamics	Tawazun Holding and Denel Dynamics	Designs, assembles, and manufactures guidance kits for airborne munitions
Etihad Ship Building	Al Fattan, Fincantieri and Melara Middle East	Military and civilian applications with a variety of vessels and boats
Surface Treatment	Tawazun Precision Industries (TPI) and The Boeing Company	Metal precision and sub-assembly work-packages

Another company created through offsets, is Caracal International. Caracal was founded in 2007 and is currently the region's leading manufacturer of firearms, sniper rifles and other light weapons for the civil, military, law enforcement and sports market. The company also offers a variety of arms accessories, full weapon repair, as well as maintenance & servicing work packages. Finally, it is worth mentioning that all of Caracal's products are designed, developed and manufactured in Abu Dhabi. Caracal is a fine example of a company created through offsets that has managed to further enhance its national and international status. Among others Caracal signed a deal with the UAE armed forces to provide 80,000 modern

assault rifles of the type CAR 816 covering local demand and providing to their country the capacity of being self-sufficient.

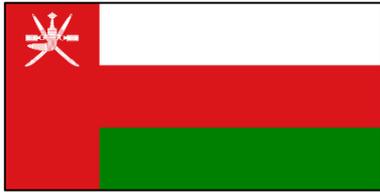
Offsets is one of the pillars of UAEs defence industry. A second pillar was created in 2014 when Emirates Defence Industries Company (EDIC) was founded. EDIC was established from the integration of assets owned by Mubadala Development Company, Tawazun Holding and Emirates Advanced Investments Group. The company brings together the combined capabilities of the UAE's defence industries into a single integrated platform. Once fully integrated, EDIC will comprise companies across the manufacturing, autonomous systems, mapping, maintenance, repair and overhaul, communications, logistics and technology development sectors.

Finally, it is worth mentioning that the space technologies industry of UAE has started to develop. The country's investment in the sector has exceeded AED 20 billion (USD 5.4 billion). The main companies activated to the sector are Thuraya, Al Yah Sat and Mohammed Bin Rashid Space Centre (MBRSC).

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Oman: Defence Industry, Technological Level and Opportunities for International Cooperation



The Gulf Cooperation Council countries – Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates – allocate a significant amount of their budgets to defence. The real significance of this fact goes beyond their massive spending as it signals a unique growth opportunity for the region's defence industry through the implementation of the offset agreements generated by the purchase of defence equipment from foreign countries. Considering that roughly 30% of these funds are dedicated to capital expenditure, we can estimate that a rather huge amount of money can be redirected to the local economies (through offsets) in order to further ameliorate their performance. Oman is not an exception, as it makes considerable efforts for the enhancement of its defence industry through offsets.

Currently, indigenous defence industrial capabilities are rather limited. Nevertheless, there are some companies in the country that manufacture and/or provide products and/or services to the defence industry. The country has domestic capacity to produce ammunition through the Oman Munitions Company (OMC). It should be noted here that the principal local industrial asset remains the Engine Engineering Co., producer of the NIMER III Light Armored Vehicle.

As it is already mentioned, Oman has a unique opportunity to enhance the technological level of its local defence industry through offsets. In 2015, Omani Authority for Partnership for Development (OAPFD) signed several Partnership for Development (PFD) agreements with foreign companies. Nevertheless, offset has provided opportunities for the country, for several years. In November 2000, BAE Systems and the Government of Oman opened the Oman Aircraft Control College, a joint civil and military air traffic control training facility located in Muscat.

Another initiative established through the PFD program is the Oman Aviation Academy Project (OAA) the aim of which is to create a regional Aviation Academy for the training of pilots. The project is developed in collaboration with Airbus Helicopters and their technical partner ENAC (Ecole Nationale de l'Aviation Civile).

Towards this direction, Oman is planning to further exploit opportunities in order to assist the establishment of a viable defence industry. In order to achieve this, the GCC country could promote the creation of cooperative schemes with foreign partners, as well as to try to intensify its R&D efforts and to link them with commercial opportunities as well as with the needs of the local armed forces.

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Jordan: Defence Industry



The main focus of the defence industry in Jordan, is the King Abdullah II Design & Development Bureau (KADDB). KADDB is an independent government entity within the Jordan Armed Forces (JAF); its Board of Directors reports to the Private Office of the King of Jordan, through the Chairman of the Joint Chiefs of Staff. KADDB's operations are funded through earned income and by the Ministry of Defence budget. The Bureau's scope of work includes, among others, the design and development of new products, as well as the incubation of defence and dual-use technologies. KADDB also supplies the Jordan Armed Forces with high-quality, efficient, and cost-effective scientific and technical services.

Following the creation of the KADDB, the KADDB Industrial Park was established, in 2006. The Park is a "specialized environment" that provides high-level support to defence and military industries. Within the main objectives of the Park, is to attract investments, and encourage the development of new and innovative technologies.

Even though the defence industry is considered as one of the major pillars for the development of the national economy, Jordan currently does not have an official offset policy. Nevertheless, foreign defence contractors are usually involved in industrial cooperation projects when selling armament to the country. The King Abdullah II Design & Development Bureau is most frequently the beneficiary of such projects.

The Bureau has also established joint ventures and/or strategic partnerships with international companies from the region and around the world.

One of the outcomes of these cooperative schemes, is the company Jordan Light Vehicles Manufacturing LLC (JLVM). JLVM was created in partnership with the UK based Jankel Group Limited (JGL) in order to develop, manufacture and market special and protected vehicles, for national and international customers.

Another such company is ASELSAN MIDDLE EAST PSC LTD (AME), a joint cooperation between ASELSAN and KADDB. AME is a high technology, multi-product business entity that designs, develops and produces state-of-the-art Night Vision and Thermal Imaging Systems for military and dual-use applications.

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