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## Vietnam: Defence Doctrine and Budget



SOCIALIST REPUBLIC OF VIETNAM  
MINISTRY OF NATIONAL DEFENCE



Vietnam is currently undergoing a massive defence spending boom. It is indicative that in 2005, Vietnam spent 16.2 billion Vietnamese dong (approximately 725 million US dollars) while in 2015 total defence spending reached a total of 99 billion Vietnamese dong (approximately 4.4 million US dollars). It should be noted here that the numbers are a bit fuzzy due to that the government doesn't officially publicize its defence budget. In 2005 the majority of the defence budget was allocating on enhancing the living conditions of military officers, soldiers and defence employees, supporting the operations of defence industry, and maintaining the Vietnamese army's readiness. Nevertheless, this has altered as a multitude of contracts and agreements for the purchase of defence equipment have been signed since then

One of the aspects that should be taken into consideration when examining the country's defence procurement policy is that there was an arms' embargo in force, imposed by the US. This has determined the geographical origin of Vietnam's imported defence equipment. Nevertheless, this has altered and U.S. is keen to increase market penetration in the country. Towards this direction, US President Obama announced the lifting of the long-lasting arms' embargo and has further stated that US is willing to examine defence exports to Vietnam on a case-by-case basis.

Currently, Russia, with whom Vietnam has had strong ties since the Cold War is the main supplier of defence equipment to the country. Vietnam has already signed a deal for six Kilo-class submarines, as well as 12 Su-30MK2V, an enhanced version of Su-30 with maritime strike capabilities and 4 Gepard-3 Frigates.

These purchases are seen as part of Vietnam's current naval modernization drive, which is mainly triggered by Chinese assertiveness in the South China Sea. More on that Vietnam, has declared the protection of maritime sovereignty as a key policy goal. This is explained by the fact that more than 50% of the country's population resides along its coastline. Additionally the seas around Vietnam are estimated to hold hydrocarbon reserves equivalent to 1.2 billion barrels of oil and a fish stock of about 2.7 million tons.

Vietnam is currently in a process of modernising its defence capabilities and assets. Thus, a significant amount of funds need to be allocated in the armament modernisation of the country making it a rather appealing destination for defence firms. Nevertheless, we must take into consideration that as almost every other country Vietnam demands from foreign suppliers of defence material a good dose of patience, as deals usually take a significant amount of political consultation and negotiation. Some of the problems, someone will have to tackle when trying to sell defence equipment to Vietnam, are the incomplete delimitation of the country's procurement priorities and procurement processes and a lack of engagement with key stakeholders (armed forces, governmental authorities, local defence industry etc.). Despite the aforementioned difficulties the market exists and rewards await those whose efforts are serious and persistent enough.

Kyriazis Vasileios,

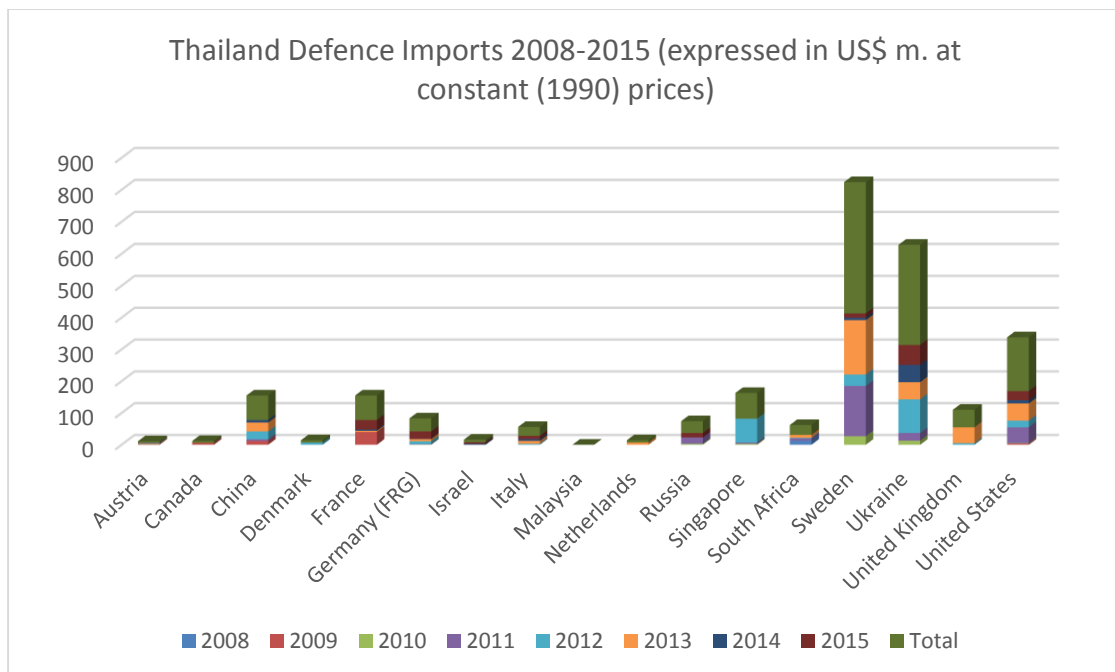
Epicos Newsletter Head Editor

## Thailand: Defence Budget &amp; Future Procurements



According to official estimations provided by the Thai Bureau of the budget, proposed defence budget for 2017 is 214 billion baht (approximately USD 6 billion), slightly increased compared to 2016, when defence spending amounted to 207 billion baht (approximately USD 5.8 billion). This increase is the lowest since the government came to power following the military coup in May 2014. Military cooperation with neighbouring countries, members of the Association of Southeast Asian Nations (ASEAN) and with international organisations such as United Nations (UN) are the main priorities of Thai defence strategy.

It is estimated that in the next few years, the defence budget will further increase, driven mainly by the modernisation plans of the government. According to reports, the Royal Thai Army is seeking to procure new tanks and new helicopters for replacing aging models that are now in operation. On the other hand Royal Thai Air Force, is expected to upgrade its existent fleet. Finally, the Royal Thai Navy is expected to procure in the long run, new frigates and Offshore Patrol Vessels (OPVs). Towards this direction, BAE Systems signed a new contract with Bangkok Dock to assist in the licensed construction of a 90 metre OPV. Under the agreement BAE will provide engineering support and advice during construction of the vessel in Thailand.



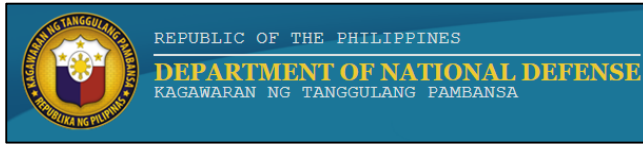
Source: SIPRI Database

Sweden has a leading role in the Thai armament imports. Apart from the European country, other countries that exported arms to Thailand, for the period 2008-2015, are Ukraine, USA and Singapore. Sweden has maintained its predominant place in defence imports mainly due to the fact that Thailand has been among the top 10 markets for Saab over an extended period of time.

Thai-Swedish relations were further strengthened with the Bilateral Cooperation Program signed by the Prime Ministers of Sweden and Thailand during their meeting in January 2004. Since then Thailand purchased from Saab 12 Gripen fighters, as well as two SAAB 340 AEW aircraft. Also Saab upgraded the combat management and fire control systems on two frigates of the Naresuan class. More specifically, frigates H.T.M.S. Naresuan and H.T.M.S. Taksin were equipped with new combat management and fire control systems, 9LV Mk4 and CEROS 200. Saab also upgraded the command and control system on the aircraft carrier H.T.M.S. Chakri Narubet. Finally, the Swedish company, with the help of the Thai Aviasatcom, supplied data-link equipment to the Naresuan and Taksin frigates, which allows communication between the frigates and Thailand's existing Gripen aircraft and the two Saab 340s which are fitted with the ERIEYE airborne radar system.

Kyriazis Vasileios,  
Epicos Newsletter Head Editor

## Philippines: Defence Budget &amp; Modernization Program



According to official estimations provided by the Department of Budget and Management, total defence spending will reach

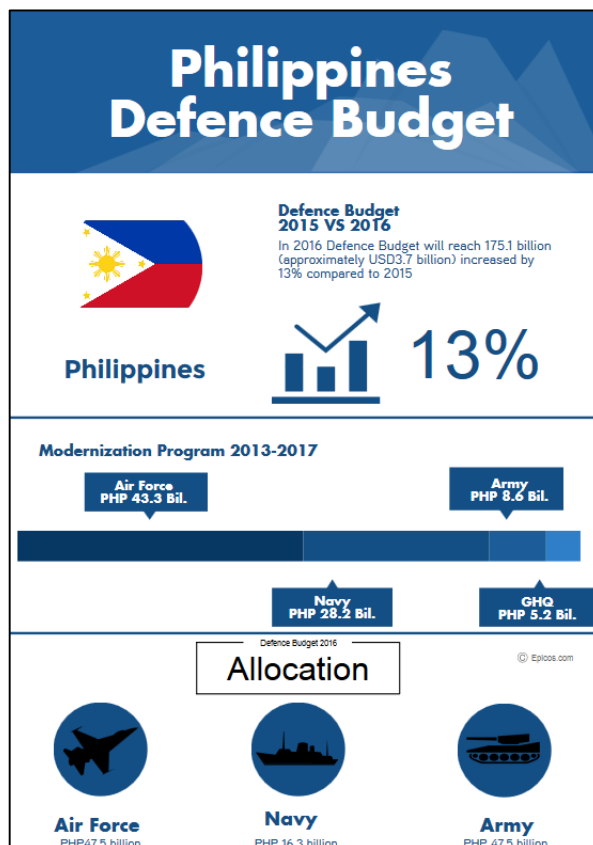
Philippine Peso (PHP) 175.1 billion (approximately USD3.7 billion) in 2016, increased by 13% compared to 2015, when defence spending amounted to PHP 154.2 billion (approximately USD 3.3 billion). From this amount, The Philippine army will receive PHP 47.5 billion (approximately USD1 billion), the air force will receive PHP 16.4 billion (approximately USD 350.7 million), while the navy will receive PHP 16.3 billion (approximately USD 348.5 million). Additionally, the 2016 defence budget includes a record amount of PHP 25 billion (approximately USD 534 million) that will be allocated to the country's ongoing military modernization effort.

The modernization program for 2013-2017 has a total budget of PHP 85.3 billion (approximately USD 1.8 billion). From this amount PHP 8.6 billion (approximately USD 183.9 million) will be allocated to the Philippine army, PHP 43.3 billion (approximately USD 925.9

million) to the air force, PHP 28.2 billion (approximately USD 603.1 million) to the navy, while PHP 5.2 billion (approximately USD 111.2 million) to the General Headquarters. The modernisation program, is partially driven by the ongoing territorial dispute with China in the South China Sea.

As of July 18, 2014 a total of thirty seven (37) projects were completed amounting to PHP 9.2 Billion (approximately USD 196.7 million). The core goals of the modernization are to enhance the armed forces organizational and operational capability by improving internal security and counter-terrorism capabilities including command, control, communications and computers (C4); mobility; firepower; intelligence,

surveillance and reconnaissance (ISR) and force protection/field medical



support.

In 2014 the following deliveries were concluded: assault rifles for the Philippine Army (PA) and Philippine Marines, UH-1H helicopters for the Philippine Air Force (PAF), close combat optics, and Explosive Ordnance Disposal (EOD) equipment.

While in 2015, Philippine armed forces received armored vehicles, attack helicopters, combat utility helicopters, light lift and medium lift aircrafts and naval helicopters for the Philippine Navy (PN).

Additionally, in 2016, Philippines will receive USD 79 million in annual military aid from USA, up from about US\$50 million last year. The country will also receive an additional USD 42 million from the new US South-East Asia Maritime Initiative.

Kyriazis Vasileios,  
Epicos Newsletter Head Editor

## Malaysia: Defence Budget and Future Procurements



According to official estimations provided by the Ministry of Finance, the amount allocated in defence in 2016, will reach 17.3 billion ringgit (RM) (approximately \$4.5 billion), significantly decreased when compared to the 17.7 billion RM (approximately \$4.6 billion) that were allocated in 2015. With this amount Malaysia is among others, planning to procure six Littoral

Combatant Ships, Very Short Range Air Defence weapon systems, armoured vehicles and an A-400M Atlas transport aircraft. Malaysian army will also procure Unmanned Aircraft Systems (UAVs) that will further improve its Intelligence, Surveillance and Reconnaissance capacity.

It should be noticed that defence budget does not include the funds allocated to the Malaysian police and the Malaysian Maritime Enforcement Agency (MMEA) – the country's equivalent of a coast guard. In 2016, the MMEA will receive 864 million RM (approximately \$222.6 million). A fraction of this amount will be allocated to the acquisition of Offshore Patrol Vessels and patrol boats. An additional of RM13.1 billion (approximately \$3.4 billion) will be spend to enhance the safety and security within the country as well as to reduce crime rate.

Malaysian Ministry of Defence allocates approximately 20% of the total budget to the procurement of new equipment. One of the aspects that should be taken into consideration when examining the country's procurements is that the Malaysian government link them to its wider aspirations to develop the Malaysian defence industry therefore exporters should meticulously review the government's offset regulations before bidding for a contract.

Additionally, it is worth mentioning that the Malaysian armed forces are rather underequipped and that is why several analysts believe that the country's Ministry of Defence should push for more procurement funds in the years to come.

In the last five years, Malaysia mainly procured ships and aircraft. It is indicative that for the period 2010-2015 these two categories accounted for 68% of the total amount allocated to the purchase of defence equipment, while the countries from which equipment originated where Germany, Spain and France.

Kyriazis Vasileios,  
Epicos Newsletter Head Editor



## 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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### Establishment of an advanced Nondestructive Testing (NDT) Laboratory



A company specializing on the sales and servicing of non-destructive testing (NDT) apparatuses, equipment and materials as well as training in material testing, in the frame of an offset program, is proposing collaboration to a prime contractor or a third party company active within the NDT market, in order to receive an investment for the establishment of an advanced NDT laboratory. The NDT laboratory to be established will be able to provide testing services for the defense, aerospace and civil industries within

the respective country but also the neighboring countries in the region.

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

Mail at: [a-kintis@epicos.com](mailto:a-kintis@epicos.com)

### Development of an effective Text Mining and Trends Prediction software application



A company providing solutions for corporate and/or governmental organizations critical information systems is proposing the development of a robust Text Mining and Trends Prediction software application. This application will identify trends by analyzing data which is held in unstructured formats such as documents. It will find possible applications in several research, academic, governmental or corporate organizations where fast and accurate exploitation of data hidden within large document volumes is required.

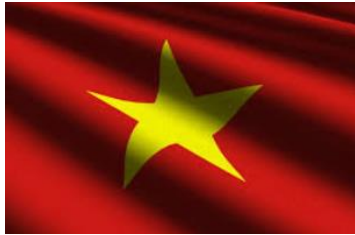
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Mail at: [a-kintis@epicos.com](mailto:a-kintis@epicos.com)





### Vietnam: Defence Industry: Indigenous Capabilities and Cooperation with International Companies



Vietnam has made significant progress when it comes to the enhancement of the local defence industry's capabilities. Nevertheless, the country still remains dependent on foreign imports to equip its armed forces, as military production is small-scale and technologically inferior. Currently, Vietnam has the ability to manufacture its indigenous version of the Russian Kh-35E Uran anti-ship missile, called KCT-15, which equips all Gepard and Molniya frigates, ammunition and several types of infantry weapons, such as Rocket-Propelled Grenades (RPG) or automatic grenade launchers.

The majority of the country's defence companies are state-owned something that create significant problems when it comes to the production and dissemination of innovative ideas and to the infusion of foreign investment into the defence sector. This is actually one of the reasons that prevented Vietnam from recording any significant technological progress during the last decade.

In order to avert this, local authorities have promoted the creation of cooperative schemes with foreign partners. Under this context Vietnam chose Israeli Military Industry (IMI) Galil ACE family over the Russian Kalashnikov weapons. The Israeli company also provided production license for the local production of Galil.

More on that Vietnam is trying to form strategic alliances with several countries in order to further develop its defence industry. In June 2016, during his stay in Vietnam, the Indian Minister of defence Manohar Parrika attended a meeting between Vietnamese and Indian defence industry businesses highlighting a clear intention of deepening the industrial bonds between Vietnam and India. More on that Italian Minister of Defence Roberta Pinotti during an official visit to Vietnam, stated that the two countries should try to further intensify collaboration in strategic studies, arms industry and UN peacekeeping operations. It would be safely assumed that Vietnam will continue to sign defence cooperation agreements with other countries and/or companies in order to facilitate the transfer of technology and consequent the development of local defence industry.

One of the local actors that will be heavily involved in this process is the Institute for Military Science and Technology, a state-owned research facility that conduct R&D for the creation of new weapons and capabilities. The Institute is trying to link the outcome of its R&D efforts with commercial opportunities as well as with the needs of the local armed forces.

Additionally within the Ministry of Defence there is the General Department of Defence Industry, which is in charge of manufacturing military weapons and equipment for the army. The department is consisted of military equipment manufacturing factories and vocational schools.

As it is already mentioned, the majority of defence companies in Vietnam are state-owned. One of this companies is the Shipbuilding Industry Corporation (SBIC) which engages in building bulk carrier, container, oil tanker, car carrier, and other custom made-to-order ships. SBIC has 8 subsidiaries, including shipbuilding companies like Bach Dang, Pha Rung, Ha Long, Song Cam, Thinh Long in the North, Cam Ranh in the Central and Saigon, Saigon Shimarine in the South areas of Vietnam.

On March 20, 2014, in an official ceremony attended by the Vietnamese Vice-Minister of Transport Mr Nguyen Hong Truong, the Damen Song Cam Shipyard was inaugurated. The shipyard is Damen's Shipyards Group first formal Joint Venture yard in Vietnam. Through this cooperation Vietnam hopes to further enhance its shipbuilding capabilities, as the country maintains great ambitions to develop its domestic capability in the design and construction of its own warships, which absorb a large chunk of the current defence budget. It should be noted that Vietnam's current indigenous shipbuilding capacity is rather limited.

Kyriazis Vasileios,  
Epicos Newsletter Head Editor

**Thailand: Defence Industry Current Capabilities and International Synergies**

According to Thai authorities defence industry is one of the sectors that could be further developed in order to both boost national stability and economy. The Defence Technology Institute (DTI) will lead the efforts of the Thai government for modernising the local defence industry. The scope is to locally design and develop new weapon systems and to link them with commercial opportunities as well as with the needs of the local armed forces. Towards this direction, DTI carried out more than 20 Research and Development projects in 2015. Additionally, Thai authorities have repeatedly invited private sector entities to participate in the state-run effort to localize the development of military equipment.

Today, Thailand has several companies that provide goods and/or services for the defence industry. Marsun Company Limited, a shipyard located near Bangkok at Samutprakarn is one of them. Marsun has delivered over 260 various types of vessels, including Fast Patrol Craft, Fast Attack Missile Craft, Crew and Supply Vessels, Ferries, Motor Yachts, Oil Spill Recovery Vessels and Multi-Purpose Craft. Another shipbuilding company, is the Bangkok Dock Company Limited, which operates as a state enterprise under the oversight of the Royal Thai Navy.

Additionally, several Thai governments provide Maintenance Repair and Overhaul (MRO) services. Thai Aviation Industries (TAI) and THAI's Maintenance Centre are the most noteworthy of them. TAI is the country's military aircraft repair and maintenance service center. The government approved the TAI's establishment on 23 September 2003, while TAI started operating on 29 January 2004. THAI's Maintenance Centre provides a full range of maintenance services including certified Heavy Maintenance (D-checks) or complete aircraft overhaul, for a big variety of civil aircraft, including B747, B777, A330B4, A310, A300-600, A330, B737, ATR42, ATR72 and BAE146.

Finally, AVIA Group was established in 1992 and is one of the few Thai companies to place high importance in the R&D of electronic defence products. Avia Group, develops among others, telecommunication and military surveillance systems.

In order to further enhance the technological level of the local defence industry Thai authorities have promoted the creation of cooperative schemes with foreign partners. Under this context Saab has entered into a joint venture with the Thai company AVIA Group. More on that Saab has agreed to transfer 100 man-years of advanced aerospace technologies to Thailand, with the aim to transfer technology, through long-term partnerships with local companies and institutions. The transfer will also provide partnership for the local industry in future development programs including the Gripen program.

Additionally, Honeywell is present in Thailand for more than 20 years. Since 1987, Honeywell Systems (Thailand) has been providing local customers with automation and control systems and products for industrial complexes and building solutions. Currently, the US based company has three subsidiaries in the country: Honeywell Systems (Thailand) based in

Bangkok and Rayong, Honeywell Electronic Material (Thailand) base in Chonburi and Honeywell Holdings Thailand, employing more than 400 employees.

Moreover Singapore Technologies Engineering Ltd (ST Engineering), has set up a wholly owned subsidiary, ST Electronics (Thailand) Limited, in Thailand with a paid up capital of Thai Baht 120,000,000 (about S\$4.8m). ST Electronics Thailand provides transportation and advanced electronics solutions.

Finally, on 29 January 2016, BAE Systems signed a new contract with Bangkok Dock to assist in the licensed construction of a 90 metre OPV. Under the agreement BAE will provide engineering support and advice during construction of the vessel in Thailand.

Kyriazis Vasileios,  
Epicos Newsletter Head Editor

### Philippines: Defence Industry



Philippine Aerospace and Defence (A&D) Industry is rather “embryonic” in terms of technological level. Nevertheless, the country has domestic capacity to produce small arms and ammunition, through the state company “Government Arsenal (GA)”. Another part of the A&D industry which receives increased interest, is the aerospace sector. In 2014, the Aerospace Industry

Association of the Philippines (AIAP), published a roadmap indicating that the local aerospace industry is capable to generate up to \$10.3bn in cumulative revenues between 2013 and 2022. Additionally, AIAP projected that in 2022, the aerospace industry will employ approximately 8200 personnel.



Source: THE PHILIPPINE AEROSPACE INDUSTRIES ROADMAP

Currently, Philippine aerospace companies mainly provide primary and secondary flight controls for Boeing 787 and Airbus A350XWB and galley equipment.

Realising the importance aerospace sector may have in the development of the local economy, President Benigno Aquino stated in his October 2012 speech during the inauguration of the B/E aerospace facility in Tanauan: “This is an important project because it marks a new kind of manufacturing. We are moving up the value chain, and today marks the foothold we have secured in the aerospace supply sector.”

In order to further enhance the technological level of the local defence industry Philippine authorities have promoted the creation of cooperative schemes with foreign partners. Under this context Asian Armoured Technologies Corporation (AATC) assembled under license provided by GKN defence Ltd. a number of Simba Armoured Personnel Carriers. Out of the 150 vehicles Philippine armed forces procured, eight were delivered in complete kit form, two in knocked-down kit form, and the remainder were assembled in Philippines by AATC. The company started with the assembly of kits, progressed to importing some parts and manufacturing others, and finished up producing the whole vehicle.

Philippine armed forces have to procure the biggest part of their equipment from foreign suppliers. Through this process the country seeks to boost its domestic military industrial capabilities (mainly through offsets/IC). If this process is successfully implemented the local defence industry can be further developed in order to offer employment opportunities and to improve the low level of Philippine technological expertise.

Towards this direction, Philippines should intensify its R&D efforts and to link them with commercial opportunities as well as with the needs of the local armed forces, as well as to invest in integrating systems from diverse sources and tailoring them to specific local requirements.

Kyriazis Vasileios,  
Epicos Newsletter Head Editor

### Malaysia: Aerospace and Defence Industry



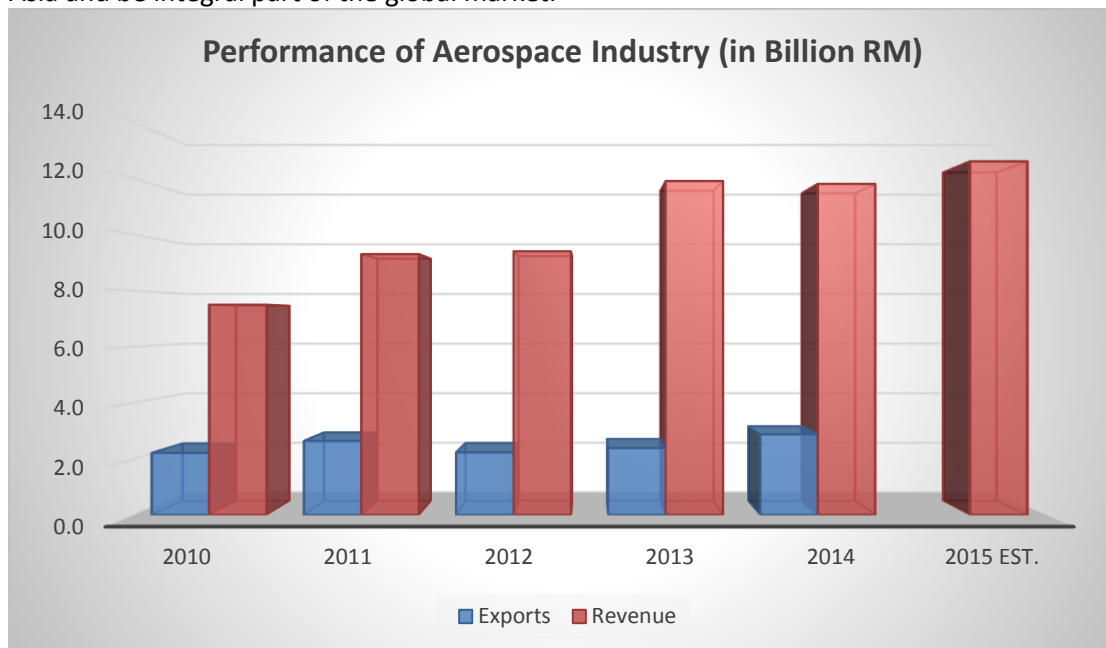
The majority of Association of Southeast Asian Nations (ASEAN) invest in building their own Aerospace and Defence (A&D) industries, mainly through channelling fast-growing military budgets to develop local expertise and competencies. Malaysia is not an exception, as the building of a reliable and viable A&D industry is a long-term economic as well as security goal. Nevertheless, it should be

stressed that the local defence industrial base is mainly characterised by low technology capabilities (concentrated in areas such as repair and maintenance) and by the reliance Malaysian companies have on strategic partnerships that have been shaped with international OEMs. Under this context several companies are already involved in joint ventures with foreign companies for shipbuilding and for the assembly of armoured and military vehicles.

In order to further boost the capabilities of the local defence industry, Malaysian authorities inaugurated the Malaysian Defence & Security Technology Park (MDSTP). MDSTP is targeted to exclusively provide the necessary facilities and infrastructure for the research & development, production of equipment and parts, maintenance repair and overhaul and other technical related services related to the defence and security industry.

Malaysian Aerospace industry is changing from being small and domestically focused, into a globally recognized industry. Currently Malaysian Aerospace industry is mainly active in four sectors, namely MRO, Aero-Manufacturing, Systems Integration and Engineering & Design.

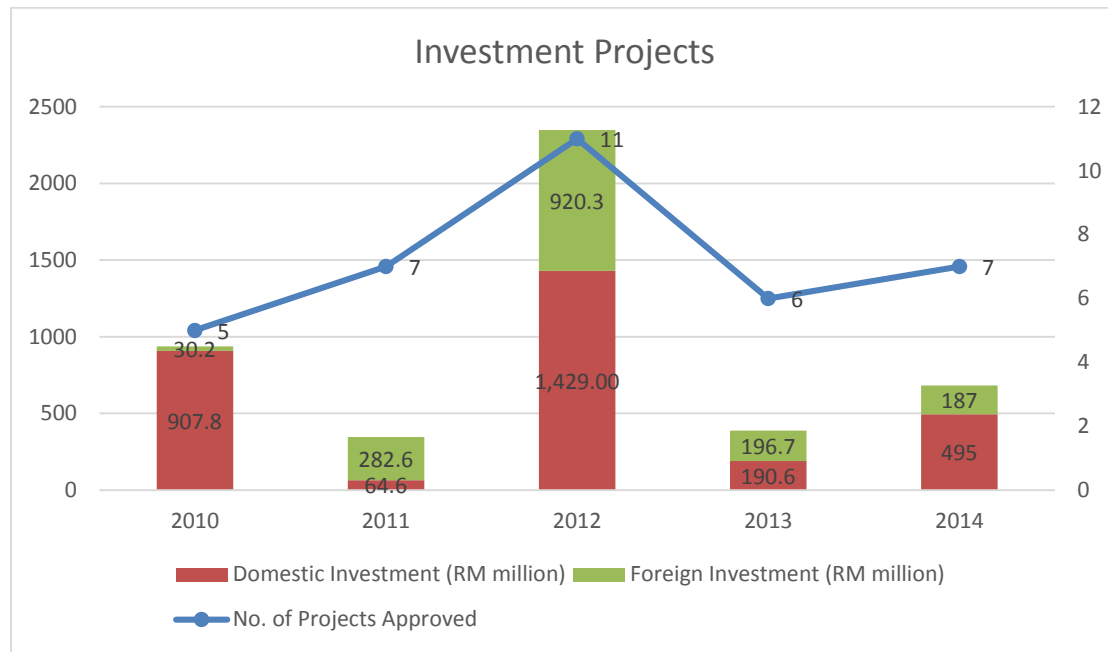
The National Aerospace Blueprint in 1997 provided a roadmap for the local Aerospace industry and triggered its development. The “National Aerospace Industry Blueprint 2030” was launched on 17 March 2015 and actually was the follow-on of the first Blueprint and outlines the country’s plans to develop the most important aerospace industry in South East Asia and be integral part of the global market.



Source: <http://www.miti.gov.my/index.php/pages/view/2493>



In 2014, there were 159 companies active in the aerospace sector with a total revenue reaching 11.8 billion RM (approximately \$3 billion) and provided a total of 19,500 job, of which 8,600 was in manufacturing sub-sector, 9,900 in MRO sub-sector and 1,000 in other sub-sectors. Additionally, in 2014, exports of aircrafts and associated equipment & parts amounted to 2.9 billion RM (approximately \$753.8 million).



| Year | Projects Approved | Domestic Investment (RM million) | Foreign Investment (RM million) |
|------|-------------------|----------------------------------|---------------------------------|
| 2010 | 5                 | 907.8                            | 30.2                            |
| 2011 | 7                 | 64.6                             | 282.6                           |
| 2012 | 11                | 1,429.00                         | 920.3                           |
| 2013 | 6                 | 190.6                            | 196.7                           |
| 2014 | 7                 | 495                              | 187                             |

Source: <http://www.miti.gov.my/index.php/pages/view/2493>

For the period 2010-14, 36 investment projects were carried out in the aerospace sector with a cumulative investment amount of 4.7 billion RM (approximately \$1.2 billion). From this amount, 1.6 billion RM (approximately \$417.2 million) came from foreign sources, while the remaining 3.1 billion RM (approximately \$808.5 million) from domestic.

Kyriazis Vasileios

Epicos Newsletter Head Editor