

# ASEAN Defence Industry Development

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**Abstract**—ASEAN Community is one of the fastest growing economic in the world despite being relatively peaceful and stabilized, the region is one of the global most lucrative defence market. The majority of state promotes and develops some degree of defence industry capability, driven by a number of motivations. This paper examines the motivations behind the defence industry development to be economic growth, threat to national security and sovereignty, Technology capability, self-reliance and finally, wealth. It underlines the importance of license production, FDI, joint venture, offset technology and knowledge transfers to the development and sustainability of defence industry. It also categorizes member states into tiers grouping based on technological capacity previously defined by Keith Klause, Andrew Ross and Richard Bitzinger. Finally, it provides a brief overview of ASEAN defence industry landscape, describes the current industrial capacity and R&D activity.

**Keywords**—ASEAN defence industry; technology capability; joint venture; technology transfer; license production

## I. INTRODUCTION

The Military Revolution Affair (MRA) of the post Cold War demonstrates that science, technology and strong domestic defence industry base dramatically enhances the combat capabilities at tactical, operational and strategic levels in modern theatre of operation. They become an essential element of national armed forces in protection of interests and sovereignty. The world and regional power such as US, Russia, China, India, Japan and South Korea have heavily invested in defence industry base to develop a comprehensive air, land, sea and space. Defence industry base consists of public, private and academic to sustain and maintain military capability, creates force multiplier and introduces new combat concept and doctrine. The US remains the most militarily technological advanced due to significant investment in R&D reinforced with its strong defence industry base. Consequently, the technological gap is maintained over potential adversaries.

Historically, during the cold war the US and Soviet were the primary arm suppliers to majority of the South East Asia nations, they provided a wide range of military equipment for air, land and maritime as well as training and facilities establishment. At the end of the Cold War, they left behind their allies in the region with military surpluses to defend themselves. During this turmoil period defence industry did not existed, South East Asia industries were labour-intensive agriculture and textile industries. Subsequently, the economy

growth enabled the majority of member states to begin the modernization of armed forces and develop defence industry capacity. In year 2015 tens countries in the South East Asia unites to become one ASEAN community. The strategic objective is to combine strength, market and members state. Recently, Asian economic has been experiencing a continuously growth and financial stability making it one of the most lucrative defence market in the world attracting leading military equipment manufacturers to establish operating bases, create flow of Direct Foreign Investment (FDI), technology transfer and Joint venture (JV) to catalyze the industry development by a combination of utilizing existing industrial facilities as well as establish new facilities with the government support and fund the defence R&D to develop and maintain knowledge base to underpin a self-sufficiency during peacetime and conflict [1].

## II. DRIVING FORCES BEHIND THE DEVELOPMENT OF DEFENCE INDUSTRY

The driving forces behind the development of defence industry are multidimensional as these factors complement and correlated with one another depending on national defence, economy strategy and policy. Firstly, ASEAN economy is stable and experiencing a growth during the past decade. The region is rich with a wide range of natural resources and human capital. It is a hub for commodities production, automotives industries and financial services sectors. During the World Economic Forum, the combined economy is forecasted to grow by 5% compared to 2% in the EU. The increase in GDP enables a state to allocate budget for military expenditures to modernize existing/current aging inventory that is reaching an end of service life by overhaul, upgrade and replacement. Noticeably, they are investing in new military equipment development and production. The majority of ASEAN states have gradually increased military spending between 2004 to 2013, Singapore has the highest spending of almost 10 bn. USD followed by Indonesia with a sharp rise during 2009 – 2012. In 2015, Singaporean Minister of Finance announced the increment of defence budget to 3.3% of GDP, accounted for 28% of regional combined budget [2]. This enables Singapore to acquire and maintain some of the most sophisticated military technology with the highest capacity in arm productions in the region. It employs a large fleet of powerful F-16 and F-15 multirole fighters, upgraded with the latest avionics and sensor suits and a large inventory of state of the art air-to-air missiles. Moreover, it has joined Lockheed Martin Fifth Generation F-35 JSF programme from the initial stage as Security