



**PROSPECTS
FOR FUTURE INDO-
EUROPEAN DEFENCE
INDUSTRIAL
COOPERATION**

Policy Brief
August 2014

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SCHOOL OF
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Abstract

India enjoys the peculiar distinction of being both a sizable arms-producing state as *well* as a large consumer of imported weaponry. Its demand for advanced weaponry – which its indigenous defence industry is as yet unable to fulfill – has resulted in a boon for foreign arms producers, especially Russia, Israel, and the United States. In recent years, however, European arms producers, particularly France and the United Kingdom, have worked hard to establish new toeholds in the Indian arms market, mostly through joint ventures and other industrial partnerships; many of these efforts involve commercial Indian companies who are also attempting to enter the Indian defence business. Even then, the leading European arms producers will face an uphill battle trying to take business away from traditional overseas arms. Consequently, Europe arms producers should strive to:

- Expand their relationships with private Indian enterprises that are also attempting to expand their defense work; such Indo-European private joint ventures could boost European defense firms' penetration of the Indian arms market.
- Improve their ties with traditional state-owned Indian defence firms, such as Hindustan Aeronautics and the Ordnance Factories, in order to exploit more traditional means of market penetration.
- Increase the quantity and quality of their offset arrangements, so as to make their products more appealing to the Indian government, which increasingly stresses technology transfers in its arms imports.
- Secure increased aid and assistance from their governments in marketing their systems to the Indian military as an added benefit.
- Take the long view (at least a decade or more) when it comes to expanding market share in India.

In turn, New Delhi could also pursue policies and initiatives that, by encouraging expanded technology transfer and diversification of foreign arms suppliers, could benefit European arms manufacturers. These include expanding efforts to open up defense contracting to private Indian companies, encouraging more joint ventures with foreign defense firms, and permitting great foreign direct investment in Indian arms enterprises (the new Modi government has already embraced of these initiatives).

India's arms acquisitions process has long operated under a dilemma: the country desires to be self-sufficient in arms manufacturing and procurement, and yet the local defence industrial base has consistently proven itself incapable of delivering high-performing, indigenously developed and produced weapons systems. Ajay Singh has noted that "Prime Minister Jawaharlal Nehru believed that no country was truly independent, unless it was independent in matters of armaments." Consequently, "after independence, and the adoption of a policy of non-alignment, it was...obvious that foreign policy would need to be reinforced by a policy of self-reliance in defence."¹

While self-sufficiency has long been the preferred goal, in practice India has had to buy considerable amounts of military equipment and technology from overseas. Endemic delays and setbacks in domestic weapons programs have forced the Indian military to continually scrounge for foreign stopgaps to underwrite modernisation. If anything, India's military has become even

more dependent on imports, and, in fact, India has become the world's largest arms importer.² According to the Stockholm International Peace Research Institute (SIPRI), for the five-year period 2009-2013, New Delhi took delivery of approximately US\$18.6 billion worth of arms, accounting for 14 per cent of all worldwide arms transfers.³ Consequently, foreign weapons systems – including off-the-shelf imports and licensed production – comprise roughly around 70 per cent of Indian arms acquisitions.⁴

Russia, Israel, and the United States are currently India's largest foreign arms suppliers, accounting for nearly 90 per cent of all Indian arms imports for the period 2009-2013. Russian weapons exports made up around 75 per cent of these sales, and include fighter jets, main battle tanks, missile systems, surface combatants, submarines, and even an aircraft carrier.⁵ In addition, some of the most advanced armaments coming out of Indian defence factories are licensed-produced versions of Russian weapons systems (see Table 1).⁶

Table 1: Recent Indian licensed-production agreements

Equipment	Service	Supplier	Cost	Order	Details
T-90S MBT	Army	UVZ Group, Russia	\$1.2bn	2007	Import and licensed production
Scorpène submarines	Navy	DCNS Thales, France	\$3.5bn	2005	Licensed production
Su-30 MKI combat aircraft	Air Force	Sukhoi, Russia	\$1.6bn	2007	Import and licensed production
Hawk advanced jet trainer aircraft	Air Force	BAE Systems, UK	\$1.45bn	2004	Import and licensed production

Source: Patil, *The Role of Foreign Technology in Indian Defence Procurement, 2011*

¹ Ajay Singh, "Quest for Self-Reliance," in Jasjit Singh, *India's Defence Spending* (New Delhi: Knowledge World, 2000); Deba R. Mohanty, *Changing Times? India's Defence Industry in the 21st Century* (Bonn: Bonn International Center for Conversion, 2004), pp. 126-127.

² Gardiner Harris, "World's Biggest Arms Importer, India Wants to Buy Local," *New York Times*, March 6, 2014.

³ SIPRI Arms Transfers Database, retrieved 21 April 2014; Siemon T. Wezeman and Pieter D. Wezeman, *Trends in International Arms Transfers 2013* (Stockholm: Stockholm International Peace Research Institute, March 2014), p. 4.

⁴ Brian Cloughly, "Analysis: DRDO Fails to Fix India's Procurement Woes," *Jane's Defence Weekly*, June 28, 2010; Guy Anderson, "India's Defence Industry," *RUSI Defence Systems*, February 2010, p. 68.

⁵ Wezeman and Wezeman, *Trends In International Arms Transfers 2013*, p. 4.

⁶ The Indian Air Force, for example, is currently acquiring up to 240 Russian Su-30MKIs, which are being licensed-produced by India's Hindustan Aeronautics Limited (HAL). Gordon Arthur, "Indian Armed Force Programs," *Defence Review Asia*, March 2009, pp. 13-14.

For its part, Israel is a critical supplier of high-tech systems, particularly unmanned aerial vehicles (UAVs) and armed drones, air-defence systems, sensors and electro-optics, and airborne early-warning radar.⁷ The United States is a relative latecomer to the Indian arms market, but a few big-ticket deals, including P-8 maritime patrol aircraft and C-17 and C-130 transport planes, have catapulted it into the top ranks.⁸

Europe's leading weapons manufacturers, meanwhile, have largely been left out of this Indian arms bonanza, securing only a handful of arms transfer agreements with New Delhi. The United Kingdom, for example, scored only one significant arms sale to India over the past decade, the sale of 66 Hawk trainer jets to the India Air Force (IAF). In 2012, France's Dassault won the Medium Multi-Role Combat Aircraft (MMRCA) competition to supply the IAF with 126 fourth-generation-plus Rafale fighter jets; this sale is critical for France and Dassault, as it is so far the *only* foreign sale of this aircraft. Additionally, India's Mazagon Dock shipyards are currently constructing six Franco-Spanish *Scorpène*-class submarines under license for the Indian Navy. And yet, these sales seem to be the exceptions that prove the rule; Europe's amalgamated share of the Indian arms market has shrunk to less than 8 per cent for the period 2009-2013.⁹ This is a far cry from 1970s and 1980s, when the United Kingdom and France were the second and third largest arms suppliers to India, capturing about a quarter of all Indian arms imports; additionally, these two countries provided the majority of licensed-production agreements with India.¹⁰

European arms manufacturers and India: a new convergence of interests?

Given its growing size and appeal, it is not surprising that European arms producers are determined to break back into the lucrative Indian arms market. Rather than straightforward off-the-shelf arms sales, European defence firms appear to be pursuing more innovative ways to get back into business with the India; in this regard, they are taking advantage of recent efforts and initiatives on the part of the Indians to reform and revitalise their arms manufacturing and acquisition processes – in particular, expanding the role that foreign firms can play in indigenous arms manufacturing, and opening up the defence-manufacturing sector to private Indian firms.

First, in order to shake the large state-owned defence sector out its complacency, the Indian government has increasingly invited the commercial sector to compete in defence bidding and production. In 2001, New Delhi opened up defence contracting to the private sector, up to 100 per cent of the value of the programme.¹¹ As a result, several local commercial firms have begun to compete for – and win – military contracts. Two Indian conglomerates, Larsen and Toubro (L&T) and Tata, were recently awarded a joint contract to develop components for a new multiple rocket launcher. L&T was also selected to build hulls for India's new nuclear-powered *Arihant*-class submarine, while Tata will produce control system for this sub.¹² In addition, L&T is investing heavily in modernising its shipyards in Hazira, on

⁷ See Richard A. Bitzinger, *Israeli Arms Transfers to India: Ad Hoc Defence Cooperation or the Beginnings of a Strategic Partnership?* RSIS Policy Brief (Singapore: S.Rajaratnam School of International Studies, May 2013).

⁸ Wezeman and Wezeman, *Trends In International Arms Transfers 2013*, p. 4.

⁹ SIPRI Arms Transfers Database, retrieved 21 April 2014.

¹⁰ U.S. Congress, Office of Technology Assessment, *Global Arms Trade*, OTA-ISC-460 (Washington, DC: U.S. Government Printing Office, June 1991), p. 155.

¹¹ Rahu Bedi, "Eyeing the Prize," *Jane's Defence Weekly*, January 17, 2007.

¹² Josy Joseph, "Private Sector Played a Major Role in Arihant," *Daily News & Analysis*, July 27, 2008 (http://www.dnaindia.com/india/report_private-sector-played-a-major-role-in-arihant_1277435).

India's east coast, in an effort to win away from state-owned shipbuilders a potentially lucrative contract to build up to six *Scorpène*-class submarines for the Indian Navy.¹³ In 2010, the country's private sector undertook around US\$800 million worth of defence work.¹⁴

At the same time, New Delhi has encouraged foreign defence firms to form long-term and comprehensive cooperative relationships with local arms producers, i.e., by permitting foreign firms to invest in India's defence industry (up to 26 per cent of a company's value), by promoting joint R&D and co-production, and by formalising offsets and leveraging them for technology acquisition. In particular, by allowing local commercial businesses to bid on defence contracts *and* to create joint ventures with foreign defence companies, it is hoped that this will make the overall Indian arms acquisition process more competitive and more responsive to the requirements of the Indian military – and at the same time also force India's state-owned defence-industrial behemoth to be more market-oriented and cost-effective. Finally, a formalised offsets strategy is intended to inject critical technologies into the Indian military-industrial complex where they are most needed, and in a timely fashion.¹⁵

Above all, the Indian government is attempting to expand the process of foreign-local armaments collaboration in ways that go far beyond previous dealings. In the past, most defence-industrial cooperation revolved around one-way technology transfers from the supplier-country to India, usually in the form of licensed-production arrangements. Today, India is looking for *strategic* – that is, deeper, broader, more

formal, and (hopefully) more permanent – collaboration with foreign defence firms. In particular, it is seeking true partnerships, i.e., cooperative relationships that strive to be “two-way streets” in which Indian defence companies can play an active, vital role in the joint development, production, and even marketing of new weapons systems. This new cooperative track comes in three forms: joint ventures with established state-owned defence enterprises; collaboration with new private sector Indian defence contractors; and participation in new defence-offset arrangements.¹⁶

In the case of joint ventures, New Delhi has for over a decade encouraged the creation of bilateral military projects linking up local and overseas defence firms. India and Russia, for example, have several important joint ventures in operation, including the *BrahMos* cruise missile, the 60-ton multirole transport aircraft (MRTA) programme, and, most important of all, a project to co-develop a fifth generation fighter (FGFA), based on the Russian PAK FA programme.¹⁷ Israel Aerospace Industries (IAI) is cooperating with the Indians to develop a longer-range version of the Israeli *Barak air-defence missile*.

Europeans arms manufacturers, however, appear to have genuinely embraced the idea of the joint venture as a means of breaking back into the Indian arms market. For example, the French jet engine manufacturer SNECMA is collaborating with HAL on improving the Kaveri turbofan engine, and the European missile consortium MBDA is working with India's Defence Research and Development Office and Bharat Dynamics to develop a new short-range surface-to-air

¹³ Jon Grevatt, “L&T Chief Attacks Indian Government Support for ‘Sick’ Public-Sector Companies,” *Jane's Defence Industry*, March 9, 2011.

¹⁴ Vivek Raghuvanshi, “Tata Seeks ‘Level Playing Field’ in India,” *Defence News*, February 2, 2011.

¹⁵ Author's interviews in India, March 2011.

¹⁶ See Sanid Dilip Patil, *The Role of Foreign Technology in Indian Defence Procurement*, dissertation submitted to the University of Manchester for the degree of M.Sc. in Innovation Management and Entrepreneurship in the Faculty of Humanities, Manchester, 2011, pp. 44-51.

¹⁷ Bedi, “Eyeing the Prize.”

missile.¹⁸ The United Kingdom's Cobham PLC is cooperating with HAL on air-to-air refueling probes for the IAF's Su-30MKI fighters. Thales of France has entered into a strategic alliance with India's state-owned Ordnance Factory Board (OFB) coproduce night-vision equipment, while Britain's BAE Systems has offered to assist OFB in a US\$2.5 billion project to modernize their arms-manufacturing facilities.¹⁹ (See Table 2 for additional joint venture programmes.)

Moreover, European defence firms are taking advantage of reforms that have opened up defence contracting to private Indian

companies, by partnering with these local businesses. The United Kingdom's BAE Systems, for example, has linked up with Mahindra & Mahindra Ltd., a private Indian conglomerate (one of its divisions builds automobiles and utility off-road vehicles), to develop land defence systems in India; accordingly, BAE acquired a 26 per cent stake in this joint venture.²⁰ Airbus Defence and Space (formerly the European Aeronautic Defence and Space Company, or EADS) has formed a defence joint venture with L&T.²¹ Tata has also linked up with AgustaWestland of Italy to produce helicopters for military and civilian use.²²

Table 2: Recent joint venture (JV) agreements involving the Indian defence industry

Indian Firm	Foreign Firm	Year	Details
HAL	SNECMA	2005	JV to manufacture key components and assemblies for aero engines
	Rolls Royce	2010	50:50 joint venture to manufacture compressor shroud rings
Wipro Technologies	Lockheed Martin	2007	JV to create Network Operations Centre to develop, demonstrate and experiment with emerging network-enabled capabilities and applications
	GE Security	2009	JV to produce and market physical security solutions for Indian military
Tata Group	Boeing	2008	JV
	SAAB	2008	JV to create an aeronautical design and development center in India
	Israel Aerospace Industry	2009	Tata (74%) and IAI (26%) JV to manufacture missiles, pilotless drones, electronic warfare systems and other defence equipment
	Sikorsky	2009	JV to produce cabins for the S-92 helicopter and other aerospace parts
Samtel	Thales	2008	Samtel (74%) and Thales (26%) JV to design, manufacture, and sell avionics systems to the Indian market
L&T	EADS	2009	JV company for the development, design, manufacturing, and related services in the fields of electronic warfare, radars, military avionics and mobile systems for military requirements
M&M Ltd	BAE	2010	Mahindra & Mahindra Ltd (74%) and BAE (26%) JV to develop armored vehicles for Indian Army.

Source: Patil, *The Role of Foreign Technology in Indian Defence Procurement*, 2011

¹⁸ Author's interviews in Europe, March 2014, and in India, March 2011; Pierre Tran, "MBDA Looks to India for New Air Defence Missile," *Defence News*, February 12, 2009.

¹⁹ Vivek Raghuvanshi, "Overseas Companies Seek Tie-Ups Through Indian OFB," *Defence News*, April 21, 2014

²⁰ Vivek Raghuvanshi, "Private Firms to Bid for Indian Vehicle Project," *Defence News*, August 23, 2010; Vivek Raghuvanshi, "India's FDI Rule Change is Short on Details," *Defence News*, July 29, 2013.

²¹ Anderson, "India's Defence Industry," pp. 69-70.

²² "Tata and Agusta Westland JV To Produce Aw119ke Helicopters In India," *Defensenow.com*, retrieved 6 May 2014 (<http://www.defensenow.com/news/577/tata-and-agusta-westland-jv-to-produce-aw119ke-helicopters-in-india.html>)

Finally, in an effort to formalise technology transfer obligations, the Indian government has over the past decade inaugurated and refined an official defence offsets policy (see Table 3).²³ In the 2000s, the New Delhi's Defence Procurement Procedures (DPP) guidelines outlined three broad acquisition strategies for the Indian armed forces: "Buy," "Buy and Make," and "Make." "Make" refers to military products that would be more or less wholly designed, developed, and manufactured within India; its basic objective is to ensure the maintenance and expansion of indigenous R&D, design, and production capabilities on the part of the local defence sector, both state-owned and private.²⁴ The "Buy" category entails products that are intended to be imported; under the terms of the 2006 DPP, any such arms import greater than 3 billion rupees (approximately US\$67 million) required a minimum 30 per cent

direct offset, either in the form of counter-purchases of Indian defence equipment or foreign direct investment (FDI) in the Indian defence industry (such as co-development or co-production arrangements, or joint international marketing efforts). The "Buy and Make" category applies mainly to major military programs, such as the MMRCA/Rafale deal, that entail licensed production inside India and which therefore demand considerable technology transfers and industrial participation – up to 50 per cent of the value of the programme. In the case of the MMRCA programme, for example, Dassault was required to enter into a private (that is, industry-to-industry) arrangement for the local production of the Rafale fighter jet; this agreement will entail considerable technology transfer and other offsets, worth as much as US\$7 billion.²⁵

Table 3: Recent offset contracts in Indian procurement deals

Contract holder	Details of contract	Year	Contract value (US\$ millions)	Offsets value (US\$ millions)	Offsets Beneficiary
RAC MiG (Russia)	MIG-29 upgrade contract	2008	1000	300	Base Repair Depots of IAF, HAL, BDL, Alpha Technologies
Boeing (United States)	8 P-8I maritime patrol aircraft for the Indian Navy	2008	2100	600	L&T, Bharat Electronics Ltd, Wipro Ltd, HCL Technologies Ltd, Hindustan Aeronautics Ltd (HAL), Dynamatic Technologies Ltd, Macmet Technologies Ltd
Israel Aerospace Industries (Israel)	Barak surface-to-air missile for the Indian Navy	2009	1400	30	Tata Advanced Systems
Lockheed Martin (United States)	Procurement of six C-130J-30 aircraft for the Indian Air Force	2008	1000	30	Tata Advanced Systems, Mahindra & Mahindra Ltd

Source: Patil, *The Role of Foreign Technology in Indian Defence Procurement*, 2011

²³ See Ron Matthews and Alma Lozano, "India's Defence Acquisition and Offsets Policy," in Basrur, Das, and Pardesi (eds.), *India's Military Modernization*, pp. 140-168.

²⁴ Laxman Kumar Behera, "India's Growing Defence Industry Base," *Defence Review Asia*, November 2010, p. 36.

²⁵ Vivek Raghuvanshi, "India, Dassault Rafale Deal Appears Stalled," *Defence News*, February 4, 2014.

Limits to cooperation

Despite these recent breakthroughs, however, European defence firms are unlikely to greatly increase arms exports to India. Europe still occupies a very tenuous position in the Indian arms market. Most of its recent arms transfers agreements with India have come in the form of fragile, embryonic joint ventures and industrial partnerships. Few of these undertakings are done deals – rather, their continued existence depends on actually winning a defence contract with the India military. Moreover, unlike Indian arms cooperation with the Russians and the Israelis, most of these ventures do not enjoy government-to-government agreements that guarantee a greater likelihood of success. Despite opening up the Indian contracting process to the commercial sector and all its talk of encouraging public-private/ domestic-foreign defense ventures, the Indian government has still tended to heavily favour its traditional state-owned defence enterprises. Consequently, the chances of getting a successful joint venture going with a private firm are slim.

Additionally, while the government has permitted foreign firms to invest in Indian defence companies (up to 26 per cent of shares, for now), so far there have been few takers overall. Overseas investors in general (European or otherwise) have no independent means by which to value these companies' stock, and they are not permitted much say in how these companies should be run.

In general, until India seriously reforms its arms acquisition process, European arms producers will most likely have to compete for contracts the old-fashioned way, that is,

through traditional ad hoc competitions that involve collaboration centered on state-owned enterprises and involving licensed production arrangements. One positive step forward is the decision by the new Modi government to increase the amount of foreign investment in domestic arms ventures from 26 to 49 per cent; this action could boost the chances of success for Indo-European defense joint ventures.²⁶

Consequently, Europe defence firms should, in addition to *expanding their relationships with private Indian defence undertakings*, strive to: (i) improve their ties with traditional state-owned Indian defence firms, such as Hindustan Aeronautics and the Ordnance Factories; (ii) increase the quantity and quality of their offset arrangements; and (iii) secure increased aid and assistance from their governments in marketing their systems to the Indian military.

Even then, Europe will still face an uphill battle trying to take business away from such favoured suppliers like Russia and Israel. Russian material is often less expensive, more robust, and technologically adequate; moreover, India's defense industries are traditionally compatible with producing Russian military equipment, after decades of license-production arrangements and other arrangements.²⁷ Israeli defense products tend to be niche items, often specifically adapted to India's needs.

Europe may never recover its once-dominant position as the leading arms supplier to India; future arms deals will likely continue to be few and far between, and the competition. At the same, the Indian arms market is too potentially lucrative to ignore or to abandon.

²⁶ Vivek Raghuvanshi, "New Indian Regime Expected to Rejuvenate Defense Sector," *Defense News*, May 29, 2014.

²⁷ See Angathevar Baskaran, "The Role of Offsets in Indian Defense Procurement Policy," in J. Brauer and J.P. Dunne (eds), *Arms Trade and Economic Development: Theory, Policy, and Cases in Arms Trade Offsets* (London: Routledge, 2004).

About the Author

Richard A. Bitzinger is Senior Fellow and Coordinator of the Military Transformations Programme at the S. Rajaratnam School of International Studies, where his work focuses on security and defence issues relating to the Asia Pacific region, including military modernisation and force transformation, regional defence industries and local armaments production, and weapons proliferation. Mr Bitzinger has written several monographs and book chapters, and his articles have appeared in journals such as *International Security*, *The Journal of Strategic Studies*, *Orbis*, *China Quarterly*, and *Survival*. He is the author of *Towards a Brave New Arms Industry?* (Oxford University Press, 2003), "Come the Revolution: Transforming the Asia-Pacific's Militaries," *Naval War College Review* (Fall 2005), and "Military Modernization in the Asia-Pacific: Assessing New Capabilities," *Asia's Rising Power* (NBR, 2010). He is also the editor of *The Modern Defense Industry: Political, Economic and Technological Issues* (Praeger, 2009). Mr Bitzinger was previously an Associate Professor with the Asia-Pacific Center for Security Studies (APCSS), Honolulu, Hawaii, and has also worked for the RAND Corporation, the Center for Strategic and Budgetary Affairs, and the U.S. Government. In 1999-2000, he was a Senior Fellow with the Atlantic Council of the United States. He holds a Master's degree from the Monterey Institute of International Affairs and has pursued additional postgraduate studies at the University of California, Los Angeles.

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