THE ECONOMIC TIMES

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DRDO signs pacts on Transfer of Technology with 16 companies

The DRDO develops technologies for the armed forces and has been carrying out Transfer of Technology to the defence industry for end use of the forces

The Defence Research and Development Organisation (DRDO) on Friday signed 30 licensing agreements for Transfer of Technology (ToT) with 16 Indian companies, including three start-ups, a statement said. The pacts were signed at the Vibrant Goa Global Expo and Summit 2019, which is being held at Goa University, Taleigao in Goa between October 17-19.

The DRDO develops technologies for the armed forces and has been carrying out ToT to the defence industry for end use of the forces. The armed forces procure ready-to-eat meals, survival ration and emergency flying ration products from companies which have acquired ToT from the DRDO.

These products cater to the requirements of the forces deployed in inhospitable terrain and hostile weather conditions, the statement said. They also have high nutrition value and higher shelf-life and these technologies are useful for the larger interest of the society. "Vibrant Goa Summit provided an opportunity for the companies to interact with DRDO scientists who have developed these technologies," it said.

The event was inaugurated by Goa Chief Minister Pramod Sawant on Thursday and was attended by senior officials from the state government and the DRDO.

https://economictimes.indiatimes.com/news/defence/drdo-signs-pacts-on-transfer-of-technology-with-16-companies/articleshow/71652198.cms

THE TIMES OF INDIA

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Defence min wing inks deal to share food tech with 15 firms

Panaji: Defence Research and Development Organisation (DRDO) inked technology transfer agreements with 15 food processing industries at the Vibrant Goa Global Expo and Summit 2019.

The agreement will see DRDO's Defence Food Research Laboratory (DFRL) share spinoff technologies that are used to prepare food for the armed forces with the industries.

Director general Life Sciences, DRDO, Dr Ajay Kumar Singh exchanged the licence agreements on technology transfer with the industries in the presence of director of DFRL Dr Anil Dutt Semwal.

"Industrial partnership is an inescapable necessity for large-scale production of technologies developed by research and development labs for utilisation of human welfare," said Singh. "Industries must make use of DRDO's technology basket for employment generation."

Singh also informed that DRDO was ready to waive the royalty for industrial production and supply of category-A technologies which are for the armed forces.

DFRL-Mysore is part of DRDO which itself reports to the ministry of defence. DFRL has developed several ready to eat foods and snacks along with packed ration for the armed forces working in different operational environments.

"Spinoff technologies developed by DFRL-DRDO which are transferred to industries will lead to safe hygienic food production in India and large-scale commercialisation," said Semwal.

DFRL-DRDO has 142 food processing technologies which are on display at the Vibrant Goa summit to create awareness and commercialisation of food technologies and also to generate employment opportunities in rural and urban India. "So far, DFRL-DRDO has transferred more than 600 technologies to industries," said Singh.

Among the 15 firms that signed agreements for transfer of technology licences, there are three startups that have tied up with DRDO for licenced production.

In 2017, DRDO had inked 29 agreements with different Goan companies to locally manufacture processed food products ranging from idli mix and snacks to packaged beverages and energy bars.

President of Vibrant Goa Summit, Rajkumar Kamat, whose company has already adopted DRDO technology, urged Goan companies to come forward to take up DRDO's spinoff technologies for civil industries.

https://timesofindia.indiatimes.com/city/goa/defence-min-wing-inks-deal-to-share-food-tech-with-15-firms/articleshow/71657125.cms



Sat, 19 Oct 2019

Global companies get ready to participate in the Navy's missile programme

Though the Indian Navy is looking for around 10 SRSAM, the bid which was opened today is to meet the immediate requirements of the Indian Navy and the rest are likely to come from the Defence Research and Development Organisation (DRDO).

Several global companies including the UK's MBDA, Swedish Company 'SAAB', Rafael Advanced Defense Systems of Israel and South Korean company Samsung and Russia's Rosboronexport have responded to the Indian Navy's bid for short-range surface-to-air missile (SRSAM) systems. These are required urgently to replace the existing Barak-1 air defence systems from Israel Company which is onboard the Kamorta class corvettes of the Indian Navy.

The proposal for the SRSAM had gotten delayed as the plan earlier was to `Make in India', however the proposal that was sent out to the global vendors are under the Buy (Global) Category which allows instant buy either from local or foreign vendors.

The last date for responding to the bid by the vendors was October 17 and since these are global players the negotiations will be government to government and through the Foreign Military Sales route. The requirement is for 150 0dd missiles and is for four Kamorta class corvettes, and these are going to come with a launcher for the missiles, a command and control system and a two way datalink.

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This SRSAM are expected to be used by the Indian Navy along with the with other air defence systems and others including fighters aircraft, UAVs and fast inshore attack vessels.

The MBDA Company has offered the Sea Ceptor missile through a joint venture with the L&T – L&T MBDA Missile Systems Ltd. Besides the Royal Navy, it is also in service with South American Navies including Chile and Brazil. It has a range of 25 km.

World's best combat helicopter 'Apache AH-64E' comes to India

The Rafael Advanced Defense Systems of Israel has responded through its joint venture with Kalyani Group and has offered the improved version of the Barak-1.

https://www.financialexpress.com/defence/global-companies-get-ready-to-participate-in-the-navys-missile-programme/1739820/

ThePrint

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Army wants DRDO to take in more of its personnel on deputation, give them more access

Army officers are unhappy with DRDO's speed of development, and want more of their own personnel to work with it and make the process streamlined By Snehesh Alex Philip

New Delhi: The Army has asked the Defence Research and Development Organisation (DRDO) to take in more uniformed personnel on deputation and to give specific roles to them as it focuses on indigenous weapons and cutting down on imports.

The Army currently sends its personnel on deputation to help the DRDO with projects specified for the force, as does the Navy. While the exact number of Army personnel on DRDO deputation is not known, the Navy currently has about 40 personnel deputed there.

"We currently have some small deployment to the DRDO, but we want them to take in a higher number of personnel. Also, these personnel should be given access to the actual labs where research and design work is being carried out," a senior Army officer told ThePrint.

The officer said the deputed personnel are often not given the access needed to ensure that the Army and the DRDO are on the same page.

Another officer made a caustic remark about the situation, saying the deputed personnel end up spending more time in the mess than in actual labs.

Incubation period too long

While the armed forces are willing to look at indigenous products, sources said the DRDO's incubation period was just too long.

"The time taken by the DRDO on some products is just too much. There needs to be a shorter incubation period. Many times, the forces have demanded a certain product, and by the time it comes out, it is more or less outdated, technology-wise," a source said.

The forces are now willing to work closely with research firms to ensure that the process can be faster and more streamlined.

An example of this was the appointment of a Major General as the chief executive officer (CEO) of the Korwa Ordnance Factory in Uttar Pradesh's Amethi district, which will manufacture AK-203 assault rifles for the military under an Indo-Russian joint venture. The experiment has been conducted to see if things can improve if armed forces personnel take charge of their key projects.

DRDO's view

Asked about the situation, DRDO sources said there are about 100 uniformed personnel on deputation, and the organisation has no issue in inducting more. Sources also denied the charge of limited access, saying the services and the DRDO are "on board" on all projects.

A source said uniformed personnel have been an integral part of DRDO, and a serving Major General is actually the director of an important lab, adding that uniformed personnel are given responsibility as per suitability.

Push to cut down imports

The three services are trying to cut down imports to follow the Narendra Modi government's 'Make in India' push.

Speaking at a DRDO seminar this week, Army chief Gen. Bipin Rawat had pitched for greater inclusion of indigenous technology in the armed forces, and asserted that India would fight and win the next war with home-grown solutions.

Rawat and Navy chief Admiral Karambir Singh attended the launch of the Indigenous Defence Equipment Exporters Association in New Delhi Friday. Rawat said numerous initiatives had been taken over the past several years to indigenise the defence sector. "We remain committed to the ethos of indigenisation," he said.

 $\underline{https://theprint.in/defence/army-wants-drdo-take-more-personnel-on-deputation-give-them-more-access/307788/}$



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Rs 35,000 crore defence exports target in next 5 years

Army Chief General Bipin Rawat said on Friday that by 2024, the defence exports are likely to be at around Rs 35,000 crore increasing from the current Rs 11,000 crore a year.

By Abhishek Bhalla

India is looking at a three-fold jump in its defence exports over the next five years according to estimates made by the Ministry of Defence (MoD).

Army Chief General Bipin Rawat said on Friday that by 2024, the defence exports are likely to be at around Rs 35,000 crore increasing from the current Rs 11,000 crore a year.

The defence forces are pitching for a robust domestic defence industry to ensure self-reliance and enhance defence exports.

"We are looking towards the defence industry to meet the needs of the defence forces. There are several schemes in place to energise their defence sector," General Bipin Rawat said at event where defence industry representatives and defence attaches of various counties were present in the New Delhi.

In an effort to boost defence exports and give a push to domestic defence industry, the Army has tasked its defence attaches in Indian missions to promote the Indian defence industry.

General Bipin Rawat also said there are attempts being made to make the procedure for procurement less bureaucratic but at the same time ensure transparency.

Army Vice-Chief Lt Gen MM Naravne also said that there is a big endeavour that whatever procurements are made the money stays within India.

"Whatever you produce we will take it. Unless we take it and use it how will we know the quality," he said.

To give a boost to domestic defence industry Defence Research and Development Organisation (DRDO) has signed 30 licensing agreements for Transfer of Technology (ToT) with 16 Indian companies, including three start-ups, at the Vibrant Goa Global Expo and Summit 2019, which is being held at Goa University, Taleigao, Goa between October 17-19, 2019.

https://www.indiatoday.in/india/story/defence-exports-target-crore-five-years-army-drdo-general-bipin-rawat-1610863-2019-10-18



Sat, 19 Oct 2019

'India not prepared for cyber challenges'

By Akhil Kadidal

Bangaluru: As the pace of digitisation in India has grown by 90% since 2014, the country's vulnerability to cyber attacks has increased exponentially, according to experts in the government.

Sudhir Kamath, director general of the Defence Research and Development Organisation (DRDO), specified that cyber attacks can be considered as the fifth dimension of war, and warned that new technologies are adding more challenges to cyber security today heightened by AI, big data, machine learning and quantum technologies.

He was speaking at a three-day conference on the future of security and warfare organised by the Bengaluru-based think-tank Synergia.

Other cyber security experts at the conference brought this statement into perspective by pointing out India is the third greatest recipient of cyber attacks in the world. The scale of the problem is enough to hamper India's growth, explained Lt General Rajesh Pant, the National Cyber Security Coordinator of India.

"Growing to a \$5 trillion economy, as our prime minister wants, translates to a growth rate of 8-9%. But if we are hit by cybercrimes, attaining that goal will become difficult," Pant said, adding that India is staring at losses of Rs 2 lakh crore through cyber attacks.

Speaking to DH, Dr Kamath specified that DRDO was involved in the creation of hardware and software solutions to combat the increasing scale of cyberattacks but would not disclose particulars, citing the classified nature of these projects.

What Dr Kamath did elucidate about was that Indian society was completely unprepared or unaware of the scale of attacks being perpetrated against from foreign state actors and private entities.

One example of this was the Face App, developed by the Russian Company Wireless Lab, which prompts users to upload photos of themselves which are then used by an AI system to generate images showing them looking older or in another gender. However, concerns over data leaks from the company have triggered fears that the images are being for nefarious purposes in Russia.

"This is what people don't realise — that the app that they download onto their phones might be sending their data to parties which could use them for illicit purposes," Dr Kamath said.

Lt General Pant suggested that taking the message of cyber security vigilance to schools could help build the better-informed society of tomorrow.

He also suggested a sustained public interest campaign, similar to anti-tobacco films which run in theatres, to impress upon the public the gravity of the situation.

https://www.deccanherald.com/city/life-in-bengaluru/india-not-prepared-for-cyber-challenges-769548.html