

GOVERNMENT OF INDIA
MINISTRY OF DEFENCE
DEPARTMENT OF DEFENCE PRODUCTION
LOK SABHA
UNSTARRED QUESTION NO. 3904
TO BE ANSWERED ON 25TH MARCH, 2022

DEVELOPMENT OF ADVANCED TECHNOLOGIES FOR MILITARY

3904. SHRI JAGDAMBIKA PAL:

Will the Minister of Defence be pleased to state:

- (a) the details of investment made by the Government to fund research and subsidize companies involved in strategic fields or to involve the private firms, universities and States Governments for working with military in developing advanced technologies;
- (b) whether the Government is planning to develop any policy for the defence sector oriented towards Artificial Intelligence or the other advanced technologies and if so, the details thereof;
- (c) whether there is any military-to-military partnership programs for developing advanced technologies for military between India and China;
- (d) if so, the details thereof along with the details of weapons imported from China, if any; and
- (e) whether the Government has taken/proposed any steps to increase the bilateral or multi-lateral engagement with foreign militaries including Russia, Japan, and the Association of Southeast Asian Nations (ASEAN) in terms of improving/developing Artificial Intelligence for the Military and if so, the details thereof?

A N S W E R

MINISTER OF STATE
IN THE MINISTRY OF DEFENCE

(SHRI AJAY BHATT)

(a): Defence Research and Development Organization (DRDO) funds directed research through its DRDO Industry Academia Centre-of Excellence (DIA-COE), in the identified research areas. DRDO has established 10 Centers of Excellence in collaboration with various academia institutes all over the country to develop critical technology for enabling futuristic requirements of Armed Forces. DRDO also funds research under its various Grant-in-Aid Scheme to undertake research in the fields of Aeronautics, Armaments, Naval and Life Sciences to strengthen funded research. Details are as under:

: 2 :

Name of Directorate of DRDO	No. of Projects	Total Cost (Rs. In Cr)	No. of Academic Institutes involved in the Projects
DFTM	136	642	20
DER&IPR	1288	1160	276
NRB	490	150	142
ARMREB	258	75	96
AR&DB	2031	339	150
LSRB	384	105	141

Further, the Technology Development Fund (TDF) Scheme also funds industries, especially – Start-ups and MSMEs upto an amount of Rs. 10 Crore, for innovation, research and development of defence Technologies in the field of defence and Aerospace. Additionally, for projects costing less than Rs. 01 (One) Cr, the funding is provided to start-ups only. Till now, Forty-One (41) projects have been awarded under TDF scheme to various Indian MSMEs, Start-ups and large industries amounting to total projects cost of approx. Rs. 205 Cr.

Additionally, Make-I procedure of Defence Acquisition Procedure (DAP) -2020 provides for financial support upto 70% of prototype development cost or maximum Rs. 250 crore per Development Agency (DA).

An innovation ecosystem for Defence titled Innovations for Defence Excellence (iDEX) has been launched in April 2018. iDEX is aimed at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs, Start-ups, Individual Innovators, R&D institutes and Academia and provide them grants/funding and other support to carry out R&D which has potential for future adoption for Indian defence and aerospace needs. Till date, 66 contracts have been signed with iDEX winners including start-ups and MSMEs (Micro, Small & Medium Enterprises) for realization of production ready prototypes.

(b): A Task Force has been constituted to assess the current Artificial Intelligence (AI) capabilities and necessary steps for inclusion of AI in Defence. Based on the recommendation of the aforesaid Task Force, Ministry of Defence through an Executive Order dated 08.02.2019 created Defence AI Council (DAIC) under the Chairmanship of Rakhsa Mantri and Defence AI Project Agency (DAIPA) with Secretary (DP) as ex-officio head for providing necessary guidance to enable and effect development of operating framework, policy level changes and structural support for AI adoption.

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DRDO also has two dedicated laboratories, Centre for Artificial Intelligence and Robotics (CAIR), Bengaluru and DRDO Young Scientist Laboratory (DYSL)-AI, Bengaluru for application oriented research in AI. All DRDO system Laboratories have AI technology groups to introduce AI features in products under development. CAIR has been mandated to nurture Start-ups in AI. Further, an AI roadmap has also been finalised for each DPSU under which 61 defence specific AI projects have been identified for development. Out of these 61 projects, 26 projects have been completed by the DPSUs.

(c) to (e): These details cannot be divulged in the interest of National Security.
