

GOVERNMENT OF INDIA
MINISTRY OF DEFENCE
DEFENCE RESEARCH & DEVELOPMENT ORGANISATION
RAJYA SABHA
UNSTARRED QUESTION NO. 144
TO BE ANSWERED ON 01st December, 2025

RESEARCH AND DEVELOPMENT IN MANUFACTURING SECTOR

144 SHRI S. SELVAGANABATHY:

Will the Minister of Defence be pleased to state:

- (a) the steps taken by Government to enhance Research and Development in defence manufacturing;
- (b) the details of various research operations taken up by defence organisations under the Ministry during the last three years along with the amount sanctioned and utilised for the research operations; and
- (c) the steps taken by Government to promote public and private sector partnerships in the defence industry?

A N S W E R

MINISTER OF STATE

(SHRI SANJAY SETH)

IN THE MINISTRY OF DEFENCE

(a) The Government has taken steps to enhance R&D in Defence manufacturing through several initiatives and some of these initiatives include:

- **Development cum Production Partner (DcPPs) / Production Agency (PAs) including private industries:** DRDO has implemented DcPP model to identify potential manufacturing agency through competitive process involving both public and private sector and transfer the manufacturing technology to meet production requirements.
- **Transfer of Technology (ToT) to Industries:** DRDO has developed a pool of 2000 industries to manufacture sub-systems, systems and equipment. The technology of DRDO developed systems are transferred to Indian Industries at zero ToT fee for Development cum Production Partner (DcPP)/ Production Agency (PA)/ Development Partner (DP). Consultancy Services of DRDO Scientists to industry is made available.

- **DRDO Patents:** The Policy for free area of DRDO Patents by Indian Industries has been implemented.
- **Technology Development Fund (TDF):** TDF Scheme is a program of MoD executed by DRDO to encourage participation of public/ private industries especially Micro, Small and Medium Enterprises (MSMEs)/ Start-ups and to promote self-reliance in Defence technology as part of Make-in-India initiative. The projects sanctioned through TDF have also seen lot of successes with 26 technologies successfully developed and two of the projects system flown in Space as part of PSLV mission. In line with the Government mandate, a corpus of Rs. 500 Cr has been additionally sanctioned towards TDF Scheme with focus towards Deep-Tech and cutting edge technologies.
- **New Start-up Policy:** DRDO is coming up with a new policy to facilitate easier interaction with these emerging Start-ups. This policy aims to streamline the process of engaging with start-ups and leveraging their innovative ideas for defence applications.
- **Dare to Dream:** Four Dare to Dream contests have been successfully conducted. The contest is aimed at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Start-ups and individual innovators and engage them to carry out R&D development which has good potential for future adoption for Indian Defence and aerospace needs.
- **Test Facility support to Industries:** Several world class R&D test facilities in DRDO Labs have now been opened for industries and necessary SOP has been formulated. Test facilities of 24 DRDO labs have been uploaded on the Defence Testing Portal (DTP), a platform of MoD for offering the Ministry's test infrastructure to Defence industries in a more transparent manner.
- **Interaction with Industries:** Industry Interaction Groups (IIGs) have been established in labs to facilitate industries.
- **25% Defence R&D Budget opened up for Industry, Start-ups and Academia:** 25% of Defence R&D Budget has been opened up for industry, start-ups and academia based on Budget 2022-23 announcements.

- **Extramural Research:** The aim of Extramural Research is to develop essential knowledge and capabilities in the areas of critical Defence technologies, establish network with researchers, develop highly skilled human resource and augment research infrastructures in Indian academic institutions/ research centers to support the evolving Defence R&D ecosystem in the country.
- **DRDO-Industry-Academia Centres of Excellence (DIA-CoE):** DRDO has policy and mechanism for collaborative directed research in developing critical and futuristic technologies for defence and security applications through a network of DRDO Industry Academia - Centre of Excellence (DIA-CoE). A total of 15 DIA-CoEs have been established which are steering translational research activities in nearly 82 identified research verticals.
- **Defence Industry Corridors:** DRDO is supporting Uttar Pradesh Industrial Corridor and Tamil Nadu Defence Industrial Corridor by collaborating with Industries as knowledge partner. The corridors have been established to achieve 'Atmanirbharta' and to realise the goal of 'Make in India'.
- **Innovations for Defence Excellence (iDEX):** An innovation ecosystem for Defence titled IDEX was launched by Hon'ble Prime Minister in April 2018 to foster innovation & technology development in Defence & Aerospace by engaging industries including Start-ups/MSMEs/ Individual Innovators, R&D institutes and Academia, IDEX provides grants/ funding and other support to IDEX winners (Start-ups/MSMEs) to carry out R&D which has potential for future adoption for Indian Defence and Aerospace needs.
- **Further, 'Make' procedure under Chapter-III of DAP-2020** involves Design & Development and Manufacturing of defence equipment or platform. Total 70 projects under various categories (i.e. Make-I/II/III) of 'Make' procedure have been accorded Approval-in-Principal (AIP) in last three (03) years (upto Mar 2025).

- (b) DRDO has sanctioned total of 148 new R&D Projects in last 3 years. Details of Budget Estimates (BE), Revised Estimates (RE) and actual allocations in respect of the Deptt of Defence R&D along with Actual Expenditure for the last three years along with allocations at Budget Estimates for the year 2025-26 is as under.

(Rs in Cr)				
Year	BE Approved	RE Approved	MA Approved	Actual
2022-23	21330.20	21130.20	21130.20	20585.78
2023-24	23263.89	23691.74	23195.89	22927.50
2024-25	23855.61	24696.94	24938.70	24696.94
2025-26	26816.82	-	-	-

- (c) Govt. of India promotes public and private sector partnerships in defence industries by various initiatives such as TDF, Dare to Dream, ToT, DcPP and iDEX etc.
